**Workforce 3One**

**Transcript of Webinar**

**BLS’ New Education and Training Classifications**

**for Employment Projections**

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GARY GONZALEZ: With that, I'm going to turn things over now to Frank Gallo. He is with the Division of National Programs, Tools and Technical Assistance here at the Department of Labor. Frank, take it away.

FRANK GALLO: Thanks. Thanks for joining us, everybody.

I wanted to point a few things out to you, if you haven't looked at it on our Webinar landing page – the registration page – we've got a whole list of Webinar-related resources. We've got a lot of BLS links connected to this new data. The data are only national data, so we know we always get a question about the availability of state and local data, so we've also got a link there to our own Guide to State and Local Workforce Data, and that will tell you what's available at that level.

And finally, I wanted to encourage everybody to join our Labor Market Information WIN-WIN Network Community of Practice, and the link for that is on the bottom of the resource page. And if you do that and sign up for automatic alerts, you'll get the earliest possible notice of future Webinars so you're guaranteed a reservation slot.

This is the fourth of a series of BLS Webinars that we've done in recent months, two of which have a very close connection to this one. The first one we did a few months ago was the new 2020 employment projections. The second was the new green jobs data. And the third was on the new Occupational Outlook Handbook.

We're very pleased to have Alan Lacey of BLS here today. He has an expert connection to two of those Webinars, the employment projections and the Occupational Outlook Handbook. Alan is a supervisor economist with the Bureau of Labor Statistics employment projections program. He's been in the projections office for 14 years and has worked as an Occupational Outlook Handbook analyst, a desktop publisher for the Occupational Outlook Quarterly, which is one of BLS' regular publications; and as an analyst for the matrix and special studies branch.

He became a supervisor in early 2011. Most recently, he's worked on the education and training system team and led the team tasked with implementing BLS' new content management system for the just-released Occupational Outlook Handbook, which came out in March. So we're very pleased to have Alan here today, so please take it away.

ALAN LACEY: All right. Good morning. As Gary said, good morning, good afternoon, depending on where you are.

I'm going to talk a little bit today about our new education and training classification system. We're going to look at the system itself, why we came up with the system, what we thought were the deficiencies in our old category system; and more importantly, what kind of analysis we can do on the new data and what the new data can tell us.

For both career exploration and policy decisions, users want answers to questions such as what is the demand for workers with a college degree or some other level of education, and also questions like what training or experience is needed for entry into different careers in addition to formal education. Answering these questions is a big challenge.

For one thing, some occupations have several paths to entry. An important part of that path is the education someone needs for entry to a given occupations. In some occupations, a certain level of education is universally required. Lawyers, for example, need to get a law degree after getting a bachelor's degree — pretty straightforward. In other occupations it's not as clear-cut. Consider paralegals, for example, who can enter the occupation with one of three formal education levels – a postsecondary non-degree award, an associate's degree, or a bachelor's degree.

Another part of the path is work experience in a related occupation, which can sometimes substitute for formal education. And then lastly, our third component, on-the-job training, is also very important for many occupations.

Another problem that we face is that there's not a lot of solid data on actual entry-level education and training requirements, especially data that are comprehensive; that is, covering the full range of occupations.

We do have data on educational attainment from the American Community Survey, conducted by the Census Bureau. We publish these data, along with our employment projections, that shows the percent distribution of workers ages 25 years and older by their highest level of education level attained. We have some sample occupations on this slide.

The data are particularly useful in analyzing occupations with multiple entry-level education possibilities. They also raise a number of issues. These data include all workers aged 25 years and older, not just entry-level workers, so it is not necessarily representative of what someone needs to enter an occupation. Some workers may further their education after being employed or entry-level requirements may change over time.

In addition, like any sample survey, the ACS is subject to response and coding error, as well as sampling error. The ACS data are not available at the detailed SOC level for several occupations as well.

The ACS data also show college-educated workers in every occupation, including most that you don't need a college education for. For example, in the table here you can see that 12.5 percent of waiters and waitresses and 5.9 percent of electricians had bachelor's degrees in the 2009 ACS data. Some of these responses may be due to response or coding error, but there may in fact be college-educated workers in every occupation.

The reasons include that some choose an occupation because it has flexible hours and they can attend to family responsibilities or have time to continue their education, or they simply prefer the occupation. Or they may suffer mal-employment or under-employment, and that they can't find a job that uses the education they have, and this can be more likely during recessions.

So the ACS data are a useful tool in coming up with entry-level education needs, but they do have the issues I've just described.

In order to help answer our users' questions, BLS has developed a new set of education and training categories. In our new system, each of the 749 detailed occupations we publish employment projections for receives an assignment in three categories: typical education needed for entry, work experience in a related occupation, and typical on-the-job training needed to attain competency. These categories are complementary and they make up a typical path to entry and competency. The assignments represent requirements in the base year of the projections. We are not projecting future requirements because we understand that these may change over time.

This slide shows the assignments that can be made in the three categories. There are eight possible education levels: doctoral or professional degree, master's degree, bachelor's degree, associate's degree, postsecondary non-degree award, some college-no degree, high school diploma or equivalent, and less than high school.

We have essentially three experience or related occupation assignments that are measures of time, and then a "none" category that you can see on the slide. Similarly, for on-the-job training we have what some of you may be used to from our old system. We have long, moderate and short-term on-the-job training. But we've also broken out the apprenticeship concept and also the internship residency assignment, as well as having a "none" category for those occupations that don't require on-the-job training.

The advantage of the new BLS categories are that they allow analysis of projections for occupations assigned to each category and we can sum the data. For example, we've summed the projected new jobs and occupations assigned to bachelor's degree, a typical entry-level education. They also allow analysis at the intersection of education, work experience and on-the-job training. Keep in mind that we are not projecting the number of workers holding particular degrees, nor those that have such degrees in the base year. Rather, we are summing the projections for occupations that have those assignments for entry-level education.

Now we revised the old education and training system for several reasons. First, there were only 11 possible assignments to choose from, and that included education, training or work experience. Only postsecondary education levels were included. So if more than one dimension was important for an occupation, such as a postsecondary degree and on-the-job training, an occupation could receive only one assignment. It just did not provide enough information on the path to enter and become competent.

So for example, if you have an occupation that requires a postsecondary non-degree award and moderate-term on-the-job training, the analyst was faced with the dilemma of selecting one or the other. In other words, in the 11-category system the assignments were exclusive. They were discriminatory against one another.

Finally, the system assigns the most significant source of education or training, and the term was not really clearly defined as to whether or not it was entry-level, or was it the level of attainment of the average worker in that occupation. It was not necessarily clear.

As far as the revision process, we worked on the new education and training system for several years. We started work before the 2008-18 projections with one team, and we continued the work more recently during our development of the 2010-20 projections with a follow-on team that continued and completed the work of the original team. We posted two Federal Register notices, and the last posting included an experimental data set with about 100 occupations.

Now, moving on to the categories and their assignments.

The education assignment is what best describes the typical level that most workers need to enter the occupation. The possible assignments are the usual educational attainment levels found in the ACS and other data sources, but we've also added the postsecondary non-degree award. That was actually a holdover from our old education and training system. And as we discussed before on the previous slide, those run the gamut from doctoral/professional degrees all the way down to less than high school, as you can see on this slide.

The next category is work experience in a related occupation. This work experience is directly related to the occupation that a worker is entering. It's different from general work experience, where someone may develop general skills or work habits. This category typically has "none" assignments for occupations like supervisors or managers, but there are other occupations that have work experience assignments that are not in those groups. This metric captures work experience that employers commonly consider necessary or commonly accepted as substitute for more formal types of education or training.

Our third and last category is on-the-job training. On-the-job training is what a worker needs to attain competency in the occupation. Competency means someone is qualified to perform the occupation independently. It is occupation-specific in that it can be transferred to another job in the same occupation. And you can see some examples of this on the slide. An electrician receives training for an apprenticeship. A school bus driver receives training on how to drive a bus. This is something they could transfer to another job as a bus driver, so they're not leaving the occupation. Similarly, I waited tables through college. It's the kind of thing that we – we discriminate "occupation-" versus "job-specific training" in the sense that when a waiter learns to balance a half-dozen plates on a tray, that's something he can take with him to another job as a waiter. But a job-specific type of training is being told where the ice machine is, or where to take the dishes when they're dirty after you bus a table.

The next couple of slides highlight our two new categories that go with long-, moderate- and short-term on-the-job training. This first slide discusses internship and residency as a possible assignment for on-the-job training. This assignment is given when occupation meets preparation generally under supervision in a professional setting. It's most often assigned to medical and teaching occupations. These occupations typically or normally need a license in order to practice. But this is different than an internship suggested to improve job prospects, such as someone taking a summer internship while they're in college to improve their prospects upon graduation. This is a professional residency or a professional internship.

Lastly, the other new category that we have under on-the-job training is apprenticeship. An apprenticeship is a formal relationship between a worker and a sponsor that includes on-the-job training and related occupation-specific technical instruction. And it's most often seen in construction occupations.

Here you can see the assignments for the sample occupations we looked at on a previous slide when we were looking at the ACS attainment data. BLS uses various resources to make these assignments, including the ACS and O\*NET. O\*NET is a product of the Employment and Training Administration at DOL – where we're sitting right now – and it has some information on education, training and work experience for occupations.

We also used qualitative information, such as what we gather from interviews of employers, workers, training experts, professional experts and others. And we also reviewed information from regulatory authorities and job postings.

You can see in this table that architectural and engineering managers typically need a bachelor's degree to enter, and more than five years of experience as an architect or engineer. So they have an assignment of "bachelor's degree" and "more than five years of experience in a related occupation.” Lawyers are assigned "doctoral or professional degree" and then "none" in the other two categories. Paralegals have three possible education levels for entry, and the assignment in the system is associate's degree, as our analysts (the BLS economists) determined that the typical entry-level education for this occupation is an associate's degree.

Career and technical education teachers usually need one to five years of experience in a related occupation, which would be the field they are teaching in — plus the internship that teachers need. Waiters and waitresses can be competent in their jobs with one month or less of on-the-job training, so they have a "short-term" on-the-job training assignment. And speech language pathologists typically need a master's degree to enter with no work experience or on-the-job training. And then lastly, the electricians typically have a high school diploma and receive their training through a formal apprenticeship.

Here we see the 2010 occupational employment summed according to the typical entry-level education categories. You see there were about 22 million jobs in occupations where bachelor's degree is the typical entry-level education assignment. Note that this is not a statement about the number of workers who have bachelor's degrees. Also on this slide you can see that there were just over 37 million with less than high school, 62 million with high school diploma, et cetera.

On this slide we show the projected employment change by typical entry-level education. The largest number of new jobs is projected for occupations in the high school category. In most cases the occupations for the high school diploma or equivalent education assignment will have some kind of on-the-job training associated with it in that category.

This third slide shows our percent change in employment by typical entry-level education category. Here we see the projected rate of employment growth for occupations summed by the typical entry-level education. The fastest growth is projected for the master's degree category. All of the postsecondary levels are projected to grow faster than the average.

This slide shows the projected percent change by on-the-job training. You can see that the fastest growth is projected in those occupations that typically need an apprenticeship; followed by internship/residency. Keep in mind that most of the apprenticeship occupations are in construction. Rapid growth is projected for many construction occupations, as the construction industry recovers from the 2007-2009 recession. However, this growth represents only a partial recovery of lost jobs.

Now I have a few slides here that cover employment projections by typical path. What we've tried to do is show how you can look at the projections by the combination of work experience, and on-the-job training. We feel like this is a real strength of the new system, whereas in our old system you could either assign an education assignment *or* a training assignment. In the new system the analyst has the leeway to make an education *and* a training assignment. So you can see how the three components work in a complementary way.

This slide shows the projected percent growth for the top 10 paths that include 10 or more occupations or have 2010 employment of 1 million or more. The path is education and then work experience and then on-the-job training. You can see that associate's, none and none is the top path on this chart. This path has some rapidly-growing occupations in healthcare, including physical therapy and occupational therapy assistants, dental hygienist, registered nurses and others. It also includes various science and engineering technicians.

Doctoral/professional degree, no work experience and internship/residency largely consist of physicians, surgeons and dentists.

The third fastest-growing path was master's, none and none, and has healthcare, counseling and social work, and social science occupations included.

This last chart shows the percent of projected number of new jobs for all occupations with bachelor's degrees as the typical entry-level education by path. So this only shows the projected employment growth – or the percent of the projected employment growth – for jobs that have a bachelor's degree assignment in the education category. And then we broke it down by the other two paths, the work experience and the on-the-job training path. More than half are projected in the bachelor's, none, none path, which has an assortment of occupational groups, ranging from engineers to foresters to training and development specialists.

The next most populous group is the bachelor's, none, internship/residency. This is dominated primarily by teachers. And then third, with 13.9 percent, is the bachelor's, one to five years of work experience and no on-the-job training requirement, which mainly includes managers, administrators and directors.

That's what I have for the overview of the new education and training system. We're very excited about it. It's allowed us a lot of clarity; it's also caused us to realize that there are a lot of ways into a lot of different occupations. I hope that the information presented today sheds light for you on the new system.

In addition to the materials that Frank mentioned before that are linked on their Webpage to the BLS Website, we have several tables that show our full data set of the new education and training category system assignments, as well as detailed definitions for the different assignments in the three categories. My information's here on this last slide. You can feel free to email me, and give me a phone call if you have other questions if they come up in the days or weeks to follow.

Additionally, you can reach our office by email at [OOHinfo@bls.gov](mailto:OOHinfo@bls.gov), that’s [OOHinfo@bls.gov](mailto:OOHinfo@bls.gov). And our main line is (202) 691-5700. And if you have a question about the education and training system, you can call that line and you'll be directed to the analysts that'll have the answer for you. Thank you very much.

MR. GALLO: This is Frank, back again. I just wanted to note that those links that Alan mentioned to the other resources, all of those links are on the resource page that you can get to right off the Webinar registration page, or landing page.

OK. We'll turn to our questions now. The first question we have is, "For the work experience category" – one of the three categories – "is that the work experience that's required for entry into the occupation?"

MR. LACEY: Yes.

MR. GALLO: And the first two – or do you want to give just a quick overview? Because two of them are and one of them's not. You want to give them just a quick recap of that? One is educational attainment (that’s for entry) — two are for entry, and the third is for competency, right?

MR. LACEY: That's correct. Yes. The on-the-job training component is typically post-employment. The first two categories, the work experience and the entry-level education, are pre-employment. Oftentimes the work experience is needed in addition to some level of entry-level education. In other cases, I know for occupational safety and health technicians, oftentimes people work in a particular industry in a different job that's related to the work of the occupational safety and health technician that works in that plant or physical environment.

MR. GALLO: OK. Now we've got a comment about – one of our listeners says that many of the paralegal students have a bachelor's degree. So Alan, could you just comment on how you handle that, whether someone has a particular educational attainment but whether or not it's necessary to be put in a certain category?

MR. LACEY: Right. And this is something that comes up with several occupations. The best I can say to it is that in situations where we had multiple entry-level education possibilities for a particular occupation, we deferred to speaking to people in the industry, looking at job postings. And we – and by "we" I mean the analysts who's assigned the research for that particular occupation – in reviewing the ACS data, what's available with O\*NET data, and anecdotal evidence, they make an assignment that they feel best fits that occupation.

This is something that we've encountered for years with registered nurses. Registered nurses, similarly, have an assignment of associate's degree, and it's another one of those cases where there are bachelor's degree programs, there's master's degree programs. But we feel if we have a job seeker who's looking to get into nursing, kind of that baseline minimum educational requirement is an associate's degree, though we recognize that there are multiple paths to entry with regard to education.

MR. GALLO: Thank you, Alan. Now we've got a question about how the BLS handles industry-related certifications. Just to clarify this further, if you could speak to whether all of those would be included in the postsecondary non-degree award category or not.

MR. LACEY: Well, the postsecondary, I'll start with that, and then finish with the professional certification, because one may answer the other.

What we regard as a postsecondary non-degree award, these programs lead to a certificate but not a degree. The certificate is awarded by an educational institution as the result of completing formal postsecondary schooling. A certification issued by a professional organization or certifying body is not included in that metric. Some postsecondary non-degree award programs last only a few weeks; some may last one or two years. Some examples of this may be nursing aides, EMTs, hair stylists, barbers, these kinds of things.

As far as the professional certification, when we were developing the new system we started by throwing everything into the sink that we could think of that may speak to education and training. So at one time during the development of this system, we were trying to see if we could include information on licensure. Also, we were trying to see if we could include information on either voluntary or mandatory certifications. And this is something that there's such a diverse range of licenses and certifications and they don't always behave the same way; that is what something that was very difficult to quantify. And so it was something that we did not include in the system.

However, that being said, in the Occupational Outlook Handbook – this data is also used in the Occupational Outlook Handbook. And by Handbook profile occupation, we discussed qualitatively licensure and certification issues for those occupations.

MR. GALLO: Just to follow up on that to clarify for people. So if the certification is not offered by an educational institution, you wouldn't count it. Is that right, or would you count it?

MR. LACEY: We would not count it.

MR. GALLO: OK. And I wanted to follow up on that a bit more. There are other surveys, such as BLS' national longitudinal surveys and the Census Bureau's SIPP – Survey of Income and Program Participation – which also ask some questions about training and education. Do you use that information in what you put together or not?

MR. LACEY: It's something that goes into the analysis. But like I said, it would likely be one of several components. We predominantly had our analysts focus on the ACS attainment data. We were able to look at it broken down because it has an age demographic component to it. We tried to tease out the concept of "entry-level" by looking at attainment by age groups, that kind of thing. And then we also partnered that, as I said, with the anecdotal evidence that we got through interviews with industry and occupational experts and the O\*NET information, was primarily what we used.

MR. GALLO: OK. I think we may have covered this, but we did get a question about how BLS gathers the data. I don't know if Alan wishes to add anything or not to what you've already said.

MR. LACEY: Specifically the education and training data?

MR. GALLO: I think the question meant anything that you look at. It's a broad question.

MR. LACEY: Wow.

MR. GALLO: If you've already covered it, then it's all right.

MR. LACEY: Specifically the education and training, I covered earlier. The projections data itself is something that we developed in the projections program, and we use a ton of inputs for that. You can find out more about our methodology on the projections themselves by visiting the projections Website, which is on the last slide. And we have tons of documentation on our methodology and technical documentation there.

MR. GALLO: And I also refer people to go to the last link on our resources page for the Labor Market Information WIN-WIN Network Community of Practice, where you'll get the link to our projections Webinar, so that's another good source for that kind of information.

OK. Our next question is, "Where do career and technical completers fall into these categories, such as welders, auto body workers?" I'm assuming this question gets a little bit more to the field or degree that somebody gets when they get a particular educational credential. So I don't know if you deal with that at all or not.

MR. LACEY: I would have to defer that question to the analyst that covers those occupations. My knee-jerk reaction would be that it may fall under postsecondary non-degree award. If I'm understanding the question correctly, if it's through a vocational or technical program – I'm not sure I fully understand.

MR. GALLO: Can you bring the question back? That is within the field of education, there's a particular category called "career and technical education." It used to called "shop," which it's not called anymore and it's expanded – especially in high school and at the postsecondary level, career and technical education appears at both levels. So that's what they're asking about, how you handle those type of credentials – which I suspect is more of a field of degree as opposed to an attainment.

MR. LACEY: Sure. I think in all likelihood, if it's completed at the high school it would fall under high school in the educational category. But our analysts are looking at these categories and the assignments for occupations at a national level. I'm not sure that they would necessarily approach the issue of making the assignment from that direction, if that makes sense.

MR. GALLO: We've got a general question, which asks, "What audience is likely to use this resource?" And maybe you could talk a little bit about who you intended to use this, or what kind of demands that you've gotten.

MR. LACEY: Well, we know – we know that the states use the information for various reasons. A lot of this derived from deficiencies in our old education and training system. And really, our primary mission, in addition to preparing projections for employment by occupation and industry, is the preparation of the Occupational Outlook Handbook. So a big part of our focus and a big number of our stakeholders are jobseekers and are career or school guidance counselors.

And while our old system was targeted at the most significant source of education and training, it was a little fuzzy as to whether or not that was describing entry-level, whether or not that was describing attainment data. And so when we looked to rehash or reinvent our education and training system, one of the things that we wanted to be able to do was have a system that could be useful quantitatively by states and other data users. But also, we wanted something that was qualitative enough that we could include the information in our career guidance materials that is the bulk of our stakeholders in the sense of just sheer numbers. The Handbook gets something on a par of 6.5 or 7 million Web hits every month.

And so we challenged ourselves with trying to get to something that was more entry-level, information that was more useful to the jobseeker right out of high school or the jobseeker right out of college that was looking for what they might need, to kind of spur their interests in a particular occupation or a group of occupations based on what they felt like they needed or what they were willing to do as far as depth of education or length of formal training.

MR. GALLO: I'll just follow that up by saying that ETA funds the state employment projections. And we know that many of the states use this data to project supply and demand by the educational requirements for occupations. And it's our hope that – BLS just published the employment projections recently through 2020 — now that states are taking that data and doing their own work, it's our hope later on when the states produce their products, we'll have them back and talk about how they used some of this data in their work to supplement the projections to look at supply and demand.

Now we've got actually a few questions that all have the common element of how one searches – what kind of searches you can do. We've got one that says, "How can we drill down to determine what specific jobs are projected for, for example, a bachelor's, none, none?" We've got another question which asks, "Can we get data on the path distribution by occupation; for example, registered nurses with an associate's versus another degree?" And we've also got a question on O\*NET.

So I'll ask in general, these all seem to have the common theme of can you do searches, either through what you've got or through the Occupational Outlook Handbook, to look at some of these things, to put together the kind of charts that you guys did? Can somebody do a customized version of that for their own use?

MR. LACEY: Sure. And if not, we can – we can – if you send an email or if you call the office we can certainly put together different data sets.

The Occupational Outlook Handbook in its redesign – and if any of you attended that Webinar, I believe it was Teri Morisi and Roger Moncarz from BLS – were describing our new Handbook site –that's at [www.bls.gov/OOH](http://www.bls.gov/OOH). There is a search feature and there's an occupation finder feature where you can sort and filter by education. You can sort and filter by the different education and training and experience components as well as other components, like growth rate, employment size and the base year — those kind of variables for each of the occupations.

Similarly – I would have to double-check and make sure that it's there. I believe our searchable database, which is available through the Website on the final slide, I believe – which is going to be [www.bls.gov/emp](http://www.bls.gov/emp) – that's our main projections Website. Our sortable database also has this data, as well as all of our projections. It includes the education, experience, and training assignments in our public data set.

So yes. That's the long version of just saying yes. This data is available. And that's what's nice about the system, is that we made the assignments as we've done before on the occupational directory that we used to make our projections. And so we have the corresponding assignments with a direct match to our projections for those occupations.

MR. GALLO: So there are a few ways that one can do that, and actually during the Occupational Outlook Handbook Webinar they did take people through that and explain how to do that search using that method. But we'll post these links on the site after this Webinar, so make sure you can do that on your own.

MR. LACEY: As far as the second question, the answer would be no. "Could we get data on the path distribution by occupation?" Because the assignment is made by the analyst after performing their research. The only thing I can think of ACS field of degree data, but that's specific to bachelor's degree holders.

So I think – my first thought would be to investigate that with the American Nursing Association or other occupational-representative organizations to see if they have a survey of their membership or something along those lines, looking for a piece of data that is that specific.

MR. GALLO: We've got a question that's a bit of a follow-up to a previous question. They're asking, "How are private training providers' certificates treated in regard to education? For example, cosmetology or certified nursing assistants?" So I guess part of this question is whether those kinds of certificates are considered educational.

MR. LACEY: Those would fall under the postsecondary non-degree award, is where those would fall.

MR. GALLO: All right, we've got a question where somebody asks, "If I'm reading the slides correctly, the greatest growth of jobs by education alone is for those requiring master's degrees. But the greatest growth of individuals is for those with a high school diploma. Is this accurate? And is this a mismatch which should be of great concern?" I don't know if the viewer is confusing percentage increase with raw employment numbers. But can you answer that, Alan?

MR. LACEY: Right. And I think that's the case here. I think that we might be misreading it. And it is – it's tricky in that we're summing the projections for occupations that have been given that assignment.

So when you're looking at the numeric employment growth for a particular occupation or aggregation of occupations, as we're looking at here is, the number of jobs. I guess maybe I can illustrate it best with an example, and this is one that we use all the time. You could have a very, very small occupation, like biomedical engineers, that's growing very rapidly but not producing a lot of jobs. On the flip side of that coin, you can have something like registered nurses, which is a very large occupation that may not be growing as fast. But the number of jobs, because of the sheer size, is much higher than that of an occupation like biomedical engineers, that's growing much more rapidly in the projections.

And so I believe this is the case. While those occupations with an assignment of master's, none, none may be growing very rapidly, the number of new jobs is not necessarily that large. It's very fast growth for a smaller population; versus occupations with a high school assignment may not be growing as quickly, but because of the sheer number of them, it's generating a lot of new jobs in the projections. I hope that answers the question.

MR. GALLO: Yeah. I just wanted to add, as a general rule, people sometimes try to use projections data to answer questions about supply and demand, but that's not what they're intended for and that's not a suitable use of them. It's much more appropriate to use job vacancy data. And we are trying to put together a Webinar on that subject. But that's a common mistake, that people put projections data to use to try to draw conclusions about supply and demand.

We have got a question, "Can we get data by demographics such as gender, age and veteran status?"

MR. LACEY: The projections do not include demographic information. You would have to go to either CPS or ACS. That's what I think of first when I think of demographic information. We have to jump through a few hoops to map our occupations to theirs in terms of pulling the attainment data. There are some one-to-one equivalencies. But if I'm remembering correctly, we have a larger occupational directory than CPS does. And so there are some one-to-many relationships between occupations from CPS to the projections occupational directory. And so there's some statistical tricks that have to go on in order to map one to the other.

But the short answer to your question is no, we don't have projections on – we don't have demographic information that follows on to the projections.

MR. GALLO: I'll just add to that by saying we don't have it in this product, but both BLS and Census has plentiful information on that subject. You can get the sources for state and local data if you go to our Guide to State and Local Workforce Data, which is one of the links in the resource page.

Let me just follow up and ask you about what you were just talking about, Alan, because I know that for the Current Population Survey they publish about 500 occupations. For the American Community Survey they publish about 530 occupations. And you had said your list is about 750 occupations. So how do they handle that? How do they bridge that gap?

MR. LACEY: (Chuckles.) Very carefully. I don't know that I can go into specifics because when I worked on the matrix branch I was on the industry side. I know that our staff works closely with theirs to develop the necessary crosswalks and bridges to map one to the other. Our occupational directory is based very, very closely on the SOC and very closely to OES, as you would imagine. We get our staffing patterns from the OES. For those who aren't familiar, the Occupational Employment Statistics survey, which is actually run in the third division under our office's umbrella. We share an office space with them over at our building. But I don't know the specifics of how exactly we distribute that employment. I know that it's something that they work closely with the CPS staff to develop.

MR. GALLO: OK. We've got a question – this is probably another question in the category of something that's a bit outside of the purview of this classification system. We've got a question, "Are you planning to track the educational distribution by occupation over time — to see, for example, for registered nurses, what proportion have, say, a bachelor's or an associate's degree in one year versus a later year?"

MR. LACEY: Not in a formal sense. We develop our projections every other year. Each one of our projection sets is discrete. It's meant to stand alone and not really build a time series. One thing that we do look at, though, is when we look at the ACS attainment data by age groups, something that we can look at there is we can look at younger people in an occupation versus older people in an occupation and see if there is any significant shifting of levels of attainment among those groups.

We use that kind of information to confirm things like for example, in physical therapy they've moved to a master's degree requirement. They have this MPT degree, this master's in physical therapy. So for example, when you look at the attainment data for physical therapists, you can see very clearly that 18 to 30-year-old physical therapists have master's degrees, and it's predominantly master's degrees in the data. And then there's a much more even distribution of degrees in people who have been in the occupation longer who are in older demographic ranges.

So to that extent we look at those things and we try and see if there's any kind of shifting going on when we do get new attainment data from ACS. But it's not something that we do formally in our office.

MR. GALLO: I'll just add to that by saying that one can get those kind of trends from looking at the American Community Survey data. You can get them yourself. You do have to be careful not to pool multiple years, because then the years will overlap. For example, you could have one, three or five-year data in ACS and you don't want to be comparing three-year data where the three years overlap one another because that's not going to be true historical change.

We will look into that for the Current Population Survey. We will look into and get you the information as to whether educational attainment is available at the detailed occupational level for that. It's certainly available with the ACS, but we'll see if it’s available for CPS.

We have a question which asks what data do you use to predict what industries will grow the fastest.?

MR. LACEY: Right. Without going too deeply into our methodology, when we prepare projections there are two divisions in our office. There's the Division of Occupational Outlook, where I work. Then we also have the Division of Industry Employment Projections. The Division of Industry Employment Projections actually prepares the industry employment projection. Our division applies a staffing pattern based off OES data to the industry projection to develop occupational projections by industry.

Before arriving at their industry employment projection, we look at census population projections. We have a labor force analyst who does a labor force projection. And all of that ties into an econometric model that they use to develop the actual industry projection. So there's a whole lot of moving parts going on over in the other division to develop those industry projections. And you can go to the Website I referenced before, [www.bls.gov/emp](http://www.bls.gov/emp) –there you can dig into the methodology and documentation that's available there on projections development.

MR. GALLO: I think we can run over just a few more minutes, so if you have any other questions, please type them in. And we have got – looks like we're going to be able to handle most of the questions. But we will definitely put some follow-up information and some of the links to get at the information for which questioners ask.

MR. LACEY: I just wanted to concede whoever posed the question –Phyllis, I have to concede that you are in fact correct. I misspoke. It is a DPT, not an MPT for the physical therapists. You got me.

MR. GALLO: I want to ask in general what has been the public reaction to this new system since it's come out, compared to the old system.

MR. LACEY: It's generally been very favorable. I know that we've gotten a lot of feedback on the Handbook and its use there, as far as giving more and more information as far as our jobseekers go. And that's what we were hoping for and that's kind of what we were anticipating, was having this information to underpin the qualitative information and the anecdotal information that we share in the Handbook.

As economists, you want to go into any kind of exchange in the market with as much information on your side as you possibly can. And so we feel like with the new system it's something where we're arming jobseekers with a little more information by having these complementary categories as opposed to exclusive assignments that we had previously. And it's much more direct in terms of the entry-level nature of it. But generally, the feedback's been very good.

MR. GALLO: I wanted to ask if BLS, having issued this – this is a big change over the last one – if you have any next steps in mind. In particular, one of the challenges of this is that BLS is looking to shed some light in an area where the survey information is not as precise as we'd like — whether BLS has ever made any efforts to mount any new surveys to get a better idea, or any other next steps you might be taking as a follow-up to this new system.

MR. LACEY: Well, to speak to your last point, we feel like in the projections office we have an opportunity to develop information that you may not be able to get from a survey. Because we're kind of unique within the Bureau. We're really a research and writing arm with developing the materials for the Handbook. And so it gives us an opportunity to go out and seek anecdotally or qualitatively the information that the Bureau does not obtain quantitatively through surveys.

I don't know if the Bureau overall, if any of the surveys are planning on adding a component that captures these kinds of statistics. But as far as our next steps within the office, I know that we'll – as with any brand-new product — we'll step away from it a little while, re-evaluate it, look at its strengths and weaknesses, look at the kind of feedback we've gotten, and see if there's anything – moving forward as we begin development of our 2012 to 2022 projection set – if there's anything that we want to tweak or improve upon with the system being so new.

MR. GALLO: Thanks, Alan. I think we're going to have to wrap up at this point.

I did want to say that we don't have any Webinars scheduled at this point, at least for our area, for the workforce information area. But a few things we are looking into — one, we're looking to do a Webinar on how to use the AmericanFactFinder tool, in particular for getting at American Community Survey data, which is one of the main components of today’s BLS product.

Another one we are looking at, the Census Bureau has another nice tool called the Table Creator, which is for their annual data from the Current Population Survey, which is used to produce the annual poverty rates, if you're familiar with that. So we're talking about that.

And as I had mentioned before, we're also looking at putting together on job vacancy data, including real-time data looking at both the BLS JOLTS survey and possibly the Help Wanted Online survey data, which is published by the Conference Board. So those are a few of the things that we're looking at. If you have suggestions for other Webinars you'd like to see, by all means let us know. And at this point I'll turn things back over to Gary.

Oh, I just want to mention that we will certainly be posting some more information with links and some follow-up. So if you've got any other questions, ask them, and if we didn't get to them we'll try to answer it.

(END)