

EDUCATION ASSESSMENT AND ACCOUNTABILITY REVIEW SUBCOMMITTEE

Minutes

November 12, 2019

Call to Order and Roll Call

The meeting of the Education Assessment and Accountability Review Subcommittee was held on Tuesday, November 12, 2019, at 10:00 a.m., in Room 129 of the Capitol Annex. Representative Brandon Reed, Chair, called the meeting to order, and the secretary called the roll.

Present were:

Members: Senator Max Wise, Co-Chair; Representative Brandon Reed, Co-Chair; Senator Mike Wilson; Representatives Tina Bojanowski, and Steve Riley.

Guests:

LRC Staff: Joshua Collins, Yvette Perry, and Maurya Allen.

Approval of Minutes – October 17, 2019

Representative Riley made a motion to accept the minutes of the October 17, 2019, meeting. Senator Wise seconded the motion. The motion passed by voice vote.

Career and Technical Enrollment and Subsequent Employment by Sector

Dr. Bart Liguori, Research Division Manager, Office of Education Accountability (OEA) and Dr. Deborah Nelson, Research Analyst, OEA, came forward to present their research on career and technical enrollment and subsequent employment by sector.

Dr. Nelson began the presentation by discussing the value of knowing which career and technical education (CTE) pathways lead to employment in high wage/high demand (HWHD) sectors. The OEA study follows students in the 2013 graduating class and following classes to determine employment, as well as other outcomes. There are higher wages overall for completers versus non-completers, but there are significant differences among sectors. Highest wages are found for manufacturing, transportation, and construction pathway completers, and lowest wages among healthcare completers even though there are more completers in that category than any other pathway. There are also significant differences among male and female completers, with female healthcare completers having the lowest wages.

Data for the report was gathered from the Kentucky Center for Statistics (KY STATS), which uses de-identified data on students from the Kentucky Department of Education regarding CTE pathway, industry certificate achievement, dual credit attainment, co-op participation, ACT score, GPA, and other demographics. KY STATS also incorporates information from the Council on Postsecondary Education regarding postsecondary degrees, and workforce data on wages per sector. Dr. Nelson stated the data is limited and does not reveal specific occupation, only sector, and does not indicate full-time versus part-time status. Additionally, CTE may have benefits not captured by wage data alone. Wage benefits of college degrees was not fully captured in this study because the study only followed graduates for five years.

The OEA study focused primarily on wage differences among those who completed a CTE pathway versus those who did not. There are 172 individual pathways which are subsequently grouped into 12 program areas for the report. Graduates completing four courses are considered ‘completers.’ The career pathways are designed to result in industry certificates or successful completion of state-approved assessments. In addition to classroom work, CTE frequently also incorporates work-based learning and dual credit opportunities. However, work-based learning and dual credit were not incorporated in this study due to a lack of available data. Transition readiness is based on passing assessments but is not equivalent with completion of a CTE pathway.

As was presented in an earlier meeting, CTE is delivered through state operated area technology centers (ATCs) and local area vocational education centers (LAVECs). Also, CTE is delivered in comprehensive high schools and other district funded CTE centers as well as through KCTCS. Major CTE program areas include business, construction, health, information technology, manufacturing, and transportation and logistics among the HWHD sectors. Agriculture, arts, human services, law/public safety, retail, and STEM are additional programs areas, some of which include HWHD certificates as classified by KDE which annually revises their list of HWHD sectors. Dr. Nelson illustrated the availability of CTE throughout Kentucky using maps. State CTE funding is not adjusted for wealthier regions, and Dr. Nelson highlighted regions where there is greater access to CTE.

The KY STATS future skills report provided data on the projected availability of jobs in each of the 12 major occupation groups. The graph provided illustrated how the number of jobs in each sector could be qualified as low, medium, and high skill. It was evident that the majority of jobs in some sectors, such as food preparation, office administration and support, and sales, were low skill. In contrast, there were a few sectors with majority high skill jobs such as management, business, and education. Two-thirds of projected jobs did not require any education after high school. Dr. Nelson said it was necessary to keep this in mind when discussing wage data later in the report. Of the pathways that have not been identified as HWHD, agriculture had the most number of completers. With the exception of business and agriculture, demand exceeds completers in almost every category. In the manufacturing sector, over eight percent of projected jobs are

in that sector, however there are significantly fewer completers in that sector. Additionally, in health, sales, education, food/accommodation, and transportation sectors there are less than half as many completers as there are projected job openings.

Variation in pathway completion depends on region, CTE delivery (whether in an ATC, LAVEC, or comprehensive high school), and student demographic group. In each of the Commonwealth's ten regions there was a much higher demand for employees in each sector than there was available supply of completers. Local area schools reported many barriers to meeting demand including cost of supplies, difficulty adding new pathways, lack of available qualified teachers, and lack of student interest. There was evidence during a school site visit of a very specialized and expensive program which was implemented with the support of local industry but, owing to a lack of student interest, the program was discontinued. This has resulted in the district being left with a considerable amount of expensive equipment for which it has no need.

There are also demographic differences among students, especially in comparison of the manufacturing sector to the healthcare sector. There is a far greater number of females completing the healthcare pathway than males. The number of male completers of manufacturing pathways is 14% higher than that of females. Racial differences also exist with more black and Hispanic health completers compared to manufacturing; although, a significant number of health completers are also white. There are more students receiving free/reduced price lunch completing health pathways and more students with IEPs completing manufacturing pathways.

Employment data showed a majority of those employed in any sector were not completers of a CTE pathway. A large number of the completers in any sector were not completers of a pathway in that sector. Wages were also found to be lower in transportation, construction, and education sectors. A majority of graduates in the highest wage sectors were male, while a majority of those in the lower wage sectors are female. Wages of the 2013 graduating class who completed a pathway were also compared to non-completers. On average, those who completed a pathway had higher wages. However, when compared to those with postsecondary education (either a postsecondary certificate or an associate's degree) the difference was greatest between completers/non-completers with no postsecondary education. After attaining some postsecondary education, the difference in wages became less. There are much higher wages for manufacturing completers than for non-completers, even when they are not working in the manufacturing sector. The top five highest earning pathways of those without a postsecondary degree were manufacturing, transportation, agriculture, construction, and business. Given the relatively low agriculture demand, the high wages of the agriculture completers seems startling and will be discussed later.

Comparison of the manufacturing and health sectors illustrated a significantly higher wage for those who were completers and non-completers in manufacturing than for

those in the health sector for all graduates. This appears to indicate a lower market valuation for healthcare jobs regardless of education level. High wage/high demand sectors are also privileged in the state accountability system, although there are some non-HWHD designated pathways that receive higher wages or are more locally valuable. Agriculture was frequently reported as a pathway that is not designated HWHD by KDE but would be more valuable on a local level in many areas of the state. Possible explanations for higher wages in agriculture include greater opportunities for work-based learning. Agriculture teacher's work year round in order to supervise student clubs and work-based learning, and some pathways include technical skills such as welding and carpentry that easily transfer to other sectors.

Wage increases were seen in all areas, including non-completers, with the addition of a postsecondary certificate. However, for healthcare employees, they still earned less with a postsecondary certificate than non-completers employed in the same sector. Attainment of an associate's degree was necessary for healthcare workers to achieve greater wages than those who were non-CTE completers. Higher wages were also seen for completers with a KOSSA certificate as well as for non-completers with a KOSSA certificate. It was noted that CTE course completion was counted for accountability under the former state accountability system, but now a performance-based assessment is sufficient to count as transition ready. This may result in a shift among districts to reduce CTE and incorporation of more performance-based assessment. Longitudinal data indicated that there are still substantially higher wages for males than females among completers up to five years after graduation. However, this inference may be limited by the data not distinguishing between full-time and part-time employment. For 2013 graduates, there was a greater wage for CTE completers who were black or white compared to those who were Hispanic, and much greater for those not receiving free/reduced price lunch than those who did qualify for free/reduced price lunch.

In conclusion, there is clear and unmet demand for workers prepared to work in higher-wage sectors like manufacturing, transportation, and construction. Also, program completion in related sectors is uneven among regions, CTE delivery types, and student demographic groups. State investment in health pathways alone is insufficient to produce higher-wage workers. To achieve higher wages in healthcare jobs requires attainment of postsecondary degrees. The report resulted in other recommendations, including increased attention to access for higher-wage pathways particularly among underrepresented student groups. Local decision making is crucial in determining which pathways to support because in some cases, non-HWHD pathways may better reflect local needs and be associated with higher wages than state-level HWHD designated pathways. Additionally, CTE opportunities offered may not always be aligned with local workforce demand. Use of workforce data should be used to evaluate outcomes including program completion and wages as well as industry and state-approved assessments and wages.

Responding to a question from Senator Wilson, Dr. Nelson said the data was reported annually, because hourly wage data was not collected through KY STATS. If there were more data on these sectors, the comparisons could be more robust. There are also limitations on specific occupation within the sector.

In response to a question from Senator Wise, Dr. Nelson said the report focused on those who had completed a pathway. Because work-based learning is critical to participation in some pathways, that did inhibit the numbers who could participate and become a completer. This would impact the number who were then able to go into the workforce as a CTE completer. The study also did not take into account difference in urban/rural completion or allow for follow up on variations seen in district surveys.

Senator Wise made a motion to accept the report as presented, seconded by Representative Riley. The motion passed by voice vote.

2020 OEA Research Agenda

David Wickersham, Deputy Director, OEA came forward to discuss the proposed research agenda for OEA in the coming year. In addition to the annual District Data Profiles, there will be a report on facilities and one on graduation requirements. The facilities report will include the process for completing facilities upgrades in Kentucky's public schools, especially focusing on how upgrades are prioritized and funded. It will also look at how effective this process is. The report on graduation requirements will examine the new graduation requirements, effective for students beginning in the 2019-2020 school year, including the impact on graduation rates. The study will also look at the feasibility for districts to provide all options within the new requirements and possible inequities in graduation requirements at the district level.

In response to a question from Representative Bojanowski, Mr. Wickersham said the facilities report will provide an overview largely from a KDE and state-wide level. Also, the annual report of OEA investigations and the district data profiles will be presented in the same manner they have been in years past.

Senator Wise made a motion to adopt the research agenda, seconded by Representative Riley. The motion passed by voice vote.

With no further business to come before the committee the meeting adjourned at 10:49 a.m.