**EXECUTIVE SUMMARY**

***Overview***

The West Virginia Jobs and Education Report is an annual study that compares the anticipated job market in West Virginia with the corresponding degrees awarded by the State’s colleges and universities. The purpose of the Report, published by the Institute for Innovation in Education at West Liberty University, is to analyze the ability of the State’s post-secondary institutions to meet the demands of the labor market.

The high unemployment rate that persists both statewide and across the nation has been signaling a worsening in the labor markets. However, certain occupations are expected to experience above average job growth.

This study documents future labor market needs for the state of West Virginia by estimating labor shortage/surplus per occupation. Labor shortage is present in a specific labor market if the number of graduates is less than the number of additional jobs available annually. The data for occupations with the largest job growth from 2010 to 2020 were obtained from the U.S. Department of Labor and Workforce West Virginia. West Virginia Higher Education Policy Commission (HEPC) provided data of degrees conferred for WV Higher Education Institutions between 2007 and 2012.

This report includes occupations that require not only four-year college degrees but also two-year and graduate degrees. Graduates from public universities, private universities and community colleges are included to provide a more detailed analysis of labor market and education needs of the state.

One of the limitations of this study is the lack of employment data of WV graduates. The percentage of graduates who are employed out of state and in state is not known. In order to compensate for this limitation, two data sets published by WVHEPC were used: 2011 college going rate and 2012 fall headcount enrollment. Based on calculations using this data, it is estimated that 30% of graduates would leave the state while 5.5% would return after graduation.

This study incorporates the assumption that 24.5% of graduates would be employed out of state after graduation. The calculations of labor surplus/shortage are based on two cases. While the first case (Case-1) includes only four-year public universities, the second case incorporates all higher education institutions including public, private universities and community colleges.

***Key Findings***

Nursing

In Case-1, the estimated labor surplus for registered nurses is approximately -200% of annual graduates. If graduates with associate degrees in nursing are added to the total supply, this number goes down to -102%. It is clear that public universities will need to double their enrollment to meet the state’s demand for nurses based on Case-1. Even if four-year degrees offered by private universities are factored in, there will still be a shortage of 433 nursing graduates annually. The addition of community college graduates is projected to eliminate the shortage.

Social Work

One noteworthy finding is that graduates with a degree in social work will be in high demand. While Case-1 predicts a total of 52 shortages, adding the graduates from private universities lowers the shortage to only 36 students. Annual graduation rates would need to increase by approximately 25% to meet this annual demand.

Computer/Information Sciences

Computer/Information Sciences graduates will be in high demand. Even if all universities are taken into account, the annual shortage is estimated to be 44% of total graduates. There are also only two public universities that offer an undergraduate degree in Computer Engineering. This creates a shortage of 34 graduates, more than double the number of annual graduates.

Medical Fields, Library Science

Medical related associate degrees mainly offered by community colleges will be in demand such as Radiologic Technology, Paramedic Sciences, Medical Transcription, Medical Laboratory Technician and Dental Technician. Doctorate in Veterinary Medicine and Master’s in Library Sciences are not offered in WV, creating a shortage of 16 and 15 graduates annually.

Surplus Fields of Study

Some programs produce significantly more graduates than needed. While 76 additional jobs are expected to be available annually in Education Counseling/Psychology, 407 students graduate with related degrees annually, leading to a surplus of 81% of annual graduates. Industrial Engineering, Mechanical Engineering, Electrical Engineering and Civil Engineering are some of the other programs that are projected to produce more graduates than needed. Inclusion of graduates with Master’s in Education creates a surplus of 234 graduates for the occupation of Education Administrators.

One additional finding of note is that while only 14 jobs will be available for Chemists, 92 students will graduate with a Chemistry degree.