The Institute for Advanced Composites Manufacturing Innovation

COMPOSITES WORKFORCE 2015

INTRODUCTION

Composites are advanced materials that are positively disrupting the way manufacturers do businesses. From vehicles to wind turbines, compressed gas storage to resins, composite materials are an innovation that touch nearly every industry. The workforce related to composites is equally diverse. Workers ranging from engineers to mechanics, chemists to skilled tradesmen, will need to be upskilled as new materials innovations come to market.

One of IACMI’s goals is to identify the workforce that is likely to be directly affected by new composites technologies and develop the talent pipeline before new materials come to market. By creating relationships with education and workforce partners and increasing the workforce capacity now, world-class composites talent will be ready to work when new composites technologies are full integrated into industry.

353,493 NEW JOBS

While many occupations were hit hard by the recession, few have recovered as strongly as those in composites. Between the 2010 trough and this past year, 2015, employment in composites-related fields grew 14.7% from 2,060,688 to 2,362,981 adding 302,293 jobs in the IACMI region* states.

GROWING DEMAND

Employers are growing jobs rapidly in advanced composites fields and demand for workers has been on the rise. In 2015, employers in the IACMI region posted 386,462 available jobs in composites-related occupations. In 2010, there were 141,009 job postings. Employer demand has more than doubled since 2010.

WORKFORCE CONCENTRATION

The advanced composites-related workforce in the IACMI region has a competitive edge, but more is needed to grow this highly technical workforce. With a location quotient of 1.4, the region has a 40% higher concentration of composites-related workers than the rest of the country on average.
AN AGING WORKFORCE

Composites-related workers are aging. 22.9% in the IACMI region are over the age of 55 and set to retire in the next decade. This means that 538,017 workers will need to be replaced in the next ten years. Currently, there are more workers over 45 than under, meaning the pipeline is not strong. More emphasis on composites and materials training, education, and workforce development is necessary to ensure that employers can replace the workers they’ll lose in the coming years.

TALENT PIPELINE

In 2014, 128,723 new certificates and degrees were awarded in fields related to composites by higher education institutions in the IACMI region. During the same year, employers posted 386,462 jobs in related fields. Job postings outpace new worker supply 3:1 meaning that there are three job postings for every new graduate in composites-related fields.

Not only are 538,017 workers expected to retire in the coming decade vacating jobs that employers must fill, but the current supply of new talent is not meeting current employer needs. Without increased emphasis on the composites-related workforce, employers will struggle to find the talent they require for successful operations.

ABOUT IACMI

The US DOE Clean Energy Manufacturing Initiative has identified advanced composites as a key cross-cutting technology with high potential to enable increased energy efficiency in transportation and energy production while creating new economic opportunity for US manufacturers. IACMI closely aligns and leverages existing facilities and capabilities to create focused technology areas to support the specific advanced composites needs in targeted vehicles, wind energy and compressed gas storage applications. For more information please visit www.iacmi.org

65.2% share of composites jobs that require training or an apprenticeship in addition to a degree

14.1% 14.1% of the composites workforce is non-white. The minority population is a great source for future talent.

36.6% 36.6% of composites-related jobs require post-secondary education

22.9% share of the workforce set to retire in the next decade

* The IACMI region is defined as Michigan, Colorado, Ohio, Indiana, Tennessee, and Kentucky