

# THE ECONOMIC VALUE OF ROANOKE-CHOWAN COMMUNITY COLLEGE'S Industrial Systems and Mechatronics Engineering Technology Program



*The Industrial Systems and Mechatronics Engineering Technology program<sup>1</sup> was recently established in 2002. In FY 2019-20, R-CCC enrolled 22 students in the program.*



THE R-CCC SERVICE AREA, NC

## CAREER OUTLOOK

The Industrial Systems and Mechatronics Engineering Technology program can lead students into a number of occupations, which may include electrical & electronic engineering technologists & technicians; electro-mechanical & mechatronics technologists & technicians; and finishers. Many of the Industrial Systems and Mechatronics Engineering Technology program students will enter the R-CCC Service Area<sup>2</sup> workforce.

Using the regional number of annual openings for these occupations (two) and subtracting the FY 2019-20 R-CCC students that may fill these openings (22), we arrive at a surplus of 20 students.<sup>3</sup> There are six unique job postings at the associate degree or below for these occupations in the R-CCC Service Area. The top three posting companies are Enviva, LP; Nucor Corporation; and Action Technologies, Inc.

### PROGRAM TO OCCUPATION MAPPING METRICS IN THE R-CCC SERVICE AREA

Number of occupations	5
Jobs (2020)	49
Projected avg. job growth (2020-2029)	+0.5%
Annual openings (2020)	2
Median annual wage (2020)*	\$55,017

\* The median annual wage reflects all award levels.

## ALUMNI IMPACT

Former students of R-CCC's Industrial Systems and Mechatronics Engineering Technology program added \$95.0 thousand in income to the R-CCC Service Area economy in FY 2019-20. This figure represents the increased wages collected by former students active today in the regional workforce as a direct result of their education, the increased output of businesses that employ these students, and the multiplier effects that occur.

### ALUMNI LIFETIME EARNINGS INCREASE AND IMPACT

Lifetime earnings  
 increase per completer

**\$618.3 thousand**

Total alumni impact  
 in FY 2019-20

**\$95.0 thousand**

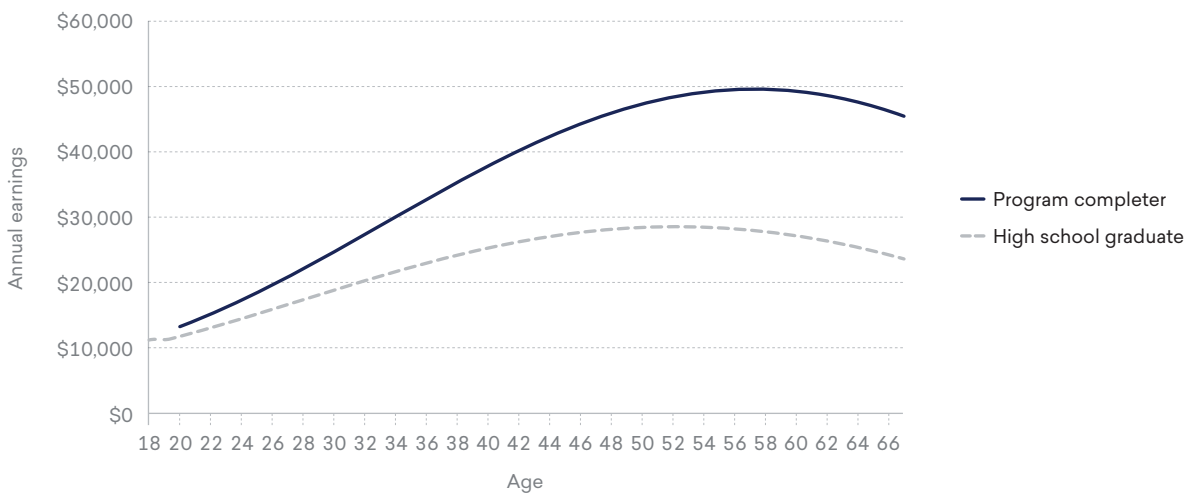


- 1 The Industrial Systems and Mechatronics Engineering Technology program is defined by the following Classification of Instructional Programs (CIP) codes: Electromechanical & Instrumentation & Maintenance Technologies/Technicians, Other (15.0499) and Electromechanical Technology/Electromechanical Engineering Technology (15.0403).
- 2 For the purposes of this analysis, the R-CCC Service Area is defined as Hertford, Northampton, and Bertie Counties.
- 3 For the purposes of this analysis, only R-CCC students were considered when comparing to annual openings.

## STUDENT RETURN ON INVESTMENT

To earn a degree in the program, students experience costs in the form of tuition and fees, books and supplies, and the opportunity cost of attending school instead of working. In return for this investment, students can earn higher wages. For every dollar students invest in their education in the program, they will receive \$19.70 back over the course of their working lives. This investment can also be seen in terms of a rate of return of 29.2%. This is an impressive return, especially when compared to the U.S. stock market 30-year average return of 10.6%.

LIFETIME EARNINGS OF A PROGRAM COMPLETER  
COMPARED TO A HIGH SCHOOL GRADUATE



## TAXPAYER BENEFITS

Taxpayers will receive an estimated present value of \$106.1 thousand in added tax revenue stemming from the students' higher lifetime earnings and the increased output of businesses. Savings to the public sector add another estimated \$6.1 thousand in benefits due to a reduced demand for government-funded social services in North Carolina. Throughout the students' working lives, North Carolina taxpayers will receive a total of \$112.2 thousand in benefits.

Throughout the students' working lives, **North Carolina taxpayers** gain in added tax revenue and public sector savings  
**\$112.2 thousand**

