# THE ECONOMIC VALUE OF VANCE-GRANVILLE COMMUNITY COLLEGES Mechatronics Program 

The Mechatronics program ${ }^{1}$ was established in 2013. In FY 2019-20, VGCC enrolled 41 students in the program. Of these students, four graduated with a certificate and two graduated with an associate degree in FY 2019-20.


THE VGCC SERVICE AREA, NC

## CAREER OUTLOOK

The Mechatronics program can lead students into a number of occupations, which may include electrical \& electronics drafters; mechanical drafters; and electrical \& electronic engineering technologists \& technicians. Many of the Mechatronics program students will enter the VGCC Service Area ${ }^{2}$ workforce.

Using the regional number of annual job openings for these occupations (six) and subtracting the FY 2019-20 VGCC completers that may fill these openings (six), we find no gap or surplus. ${ }^{3}$ There are 38 unique job postings at the associate degree or below for these occupations in the VGCC Service Area. The top three posting companies are Merck \& Co., Inc.; Mars, Inc.; and Captive-Aire Systems, Inc.

## ALUMNI IMPACT

Former students of VGCC's Mechatronics program added \$52.2 thousand in income to the VGCC 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.

PROGRAM TO OCCUPATION MAPPING METRICS IN THE VGCC SERVICE AREA

| Number of occupations | 7 |
| :---: | :---: |
| Jobs (2020) | 101 |
| Projected avg. job growth (2020-2029) | +1.3\% |
| Annual openings (2020) | 6 |
| Median annual wage (2020)* | \$54,345 |

ALUMNI LIFETIME EARNINGS INCREASE AND IMPACT

Lifetime earnings
increase per completer
$\$ 463.3$ thousand

Total alumni impact
in FY 2019-20

\$52.2 thousand

[^0]
## STUDENT RETURN ON INVESTMENT

To earn a degree or certificate 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 $\$ 6.40$ back over the course of their working lives. This investment can also be seen in terms of a rate of return of 20.4\%. This is an impressive return, especially when compared to the U.S. stock market 30-year average return of 10.6\%.


## TAXPAYER BENEFITS

Taxpayers will receive an estimated present value of \$477 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 \$22.4 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 $\$ 499.4$ thousand in benefits.

Throughout the students' working lives, North Carolina taxpayers gain in added tax revenue and public sector savings \$499.4 thousand


[^0]:    1 The Mechatronics program is defined by the following Classification of Instructional Programs (CIP) code: Mechatronics, Robotics, \& Automation Engineering (14.4201).
    2 For the purposes of this analysis, the VGCC Service Area is defined as Vance, Granville, Franklin, and Warren Counties.
    3 For the purposes of this analysis, only VGCC completers were considered when comparing to annual openings.

