

Finding work

A report from the U.S. Census Bureau shows that science, technology, engineering and mathematics graduates are often finding work outside their fields. Here are some highlights from the survey:

- Men continue to be overrepresented in STEM, especially in computer and engineering occupations. About 86 percent of engineers and 74 percent of computer professionals are men.
- Engineering and computer, math and statistics majors had the largest share of graduates going into a STEM field, with about half employed in STEM occupations.
- Science majors had fewer graduates employed in STEM. About 26 percent of physical science majors; 15 percent of biological, environmental and agricultural sciences majors; 10 percent of psychology majors; and 7 percent of social science majors were employed in STEM.
- At 9.1 million, the college major with the most graduates was business. Multidisciplinary studies was the major with the fewest graduates, at 275,000.
- Engineering was the major with the highest earnings, \$92,900, while the major with the lowest earnings was visual and performing arts, \$50,700.
- Non-STEM management occupations employed the most male college graduates—3.8 million—while education occupations employed the most female college graduates, 4.3 million.
- States with the largest percentage of STEM workers were Maryland (18.8 percent), Washington (18.3 percent) and Virginia (16.5 percent).

Continued from previous page

the culture of the engineering programs really makes a difference for student success, and we're creating programs that bring the women engineering community together," she says.

The efforts have paid off. Carville says. Since the WE at RIT program officially began a little more than a decade ago, university officials have seen an increase in retention. Ten years ago, there were 50 new female students enrolled in engineering, Carville observes, while this past year there were 175.

"At RIT, we're approaching 25 percent female representation in the entire class, and the national standard is 20," Carville says. "It would be nice to have some gender parity for engineering majors, but that's a steep goal, especially given the fact that we were at about 10 percent when we started 10 years ago."

Within recent years, RIT has tried to centralize its STEM outreach under a single department, the office of K-12 programs. This department administers grant-funded programs for local school districts with an aim of increasing understanding of sciences and technology.

While many of the outreach efforts and programs for K-12 students remain under the authority of individual colleges at RIT, the office has a facilitation role, Mozall says.

"It's kind of a one-stop shop where people can see all the different things going on," she says. "It's definitely a step in the right direction for RIT, because we're helping people see a common face and to have one place where they can go to reach across colleges and see the different programs we're offering for students."

Future prospects

The efforts to invest in STEM fields could have a significant return locally, Kress says. As the economy shifts toward science- and health-driven fields, there must be an appropriate workforce to fill these jobs, she notes.

"Regionally, the effect of investing in STEM will be enormous," Kress says. "Look at the industry sectors driving Rochester, whether it's health-related or optics or biosciences or even big data. These are industries that need a well-qualified workforce. The more we can do for students to get into these fields, the more it will benefit the entire region."

But finding work is not always easy for STEM graduates. A recent report from the U.S. Census Bureau shows that STEM grad-

uates are often finding work outside their fields. Statistics from the 2012 American Community Survey showed that 74 percent of those with bachelor's degrees in STEM fields are not employed in STEM occupations.

The report notes that graduates of engineering and computing, mathematics and statistics programs had the largest share of graduates going into STEM fields, while science majors had fewer graduates employed in their fields. Roughly 26 percent of physical science majors; 15 percent of biological, environmental and agricultural sciences majors; 10 percent of psychology majors; and 7 percent of social science majors found employment in their fields.

However, those who did find degree-related employment were often compensated better than their peers, the data showed. The field with the highest earnings was engineering, with an average of \$92,900.

The opportunities will be there for future STEM students, Kress stresses, especially within what are known as middle-skills jobs. These positions require something more than a high school diploma but less than a four-year degree, and they are expected to increase in STEM-related fields such as health care and high-tech manufacturing.

But filling these positions and meeting the needs of employers will mean getting students into STEM pathways while they are still young, Kress says.

"We're trying to help people see that there are those career pathways that are open for them, but they will only be open to them if they start thinking early enough and getting on the right path of the math and sciences they need," she says.

naldougherty@rj.net / 585-546-8303

Construction projects wanted

In the Sept. 12 Special Report on Construction and Design, the Rochester Business Journal is planning again to feature local "works in progress"—construction projects that have broken ground in the six-county region, but are not yet completed.

If you would like your projects to be included, please respond by Aug. 22.

A photo or artist's rendering of the project must be mailed or e-mailed with each project.

The Editorial Department will publish project descriptions and photos or illustrations on a space-available basis. Contact Velvet Spicer at vspicer@rj.net or (585) 546-8303 with questions.

Providing
the best space
for your business.

45 VANTAGE POINT DRIVE
40,000 SQ FT AVAILABLE

Single Tenant Building
Expandable by 25,000 Sq. Ft.
26' Clear
7 Loading Docks

Offering general office space, flex space, retail space, warehouse space, mixed use, and build-to-suit facilities. Join our family of hundreds of commercial tenants, where our main focus is tenant retention and service.



FOR ADDITIONAL INFORMATION, PLEASE CONTACT:

Kurt Serfl
(585) 654-6650
kurt@gallinadev.com

Gallina DEVELOPMENT CORPORATION
www.gallinadev.com



Get Out and Explore...
After Dark



Get Explore on the go.
Visit exploregreaterrochester.com.

Interested in ordering copies of Explore Greater Rochester?
Go to rjbizbiz.com, call (585) 546-8303 or email service@rjbiz.net.