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Navy promotes STEM learning at Marion Tech

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MARION - The Navy is joining educators to encourage more students to seek STEM degrees.

Vice Admiral James "Phil" Wisecup visited Marion Technical College recently as part of the Navy's 50/50 project. Wisecup talked about the importance of attracting people with degrees in science, technology, engineering or math - STEM - and spoke about advances such as nuclear-powered ships and non-slip surfaces on ships' decks.

"It all comes from STEM," he said. "Somebody thought that all up."

Fifty Navy leaders are visiting 50 cities as part of the 50/50 program. They are talking to corporate executives, civic leaders, government officials, college faculty, students and others.

The visitors talk about the need for STEM-trained workers and how veterans can fill the need because of their military training.

"Studies show that the U.S. doesn't have enough students who are interested in pursuing the science, technology, engineering or math degrees that are so essential to achieving success in the future," said Glenn Sircy of the Navy Office of Community Outreach. "This shortage of STEM-educated students presents our nation with a massive challenge, and a strong American defense requires more graduates with stronger STEM skills."

Wisecup called it national security problem.

He talked about how alternative energies are being used by the Navy, which has progressed from sail to steam to gas turbines and now to nuclear power while searching for other alternatives.

He used the deck of the ship as an example, saying the Navy is constantly trying new ways to make surfaces non-slip despite being out to sea.

"We are problem solvers, and that's what we do," Wisecup said. "These are all problems that must be solved."

Local efforts

There already has been a push locally for students to consider STEM careers. The Ohio State University at Marion has launched an engineering program that enables students to get two years of college completed before transferring to the Columbus campus to continue studies. Ohio State Marion, Marion Technical

College and Tri-Rivers Career Center also are partnering together through the Robotics and Automation Manufacturing Technology Center to be built on the Tri-Rivers campus.

Attempts to interest students in STEM subjects starts as young as elementary school through beginning robotics programs. Efforts expand in middle and high school as educators focus on what they say is a need for more STEM-trained workers.

"We have a real shortage," said Tri-Rivers engineering instructor Ritch Ramey, who runs a satellite robotics program at Marion Technical College. "It's like the space race."

Other nations

InformationWeek, referring to the group's report, reported that 4.4 percent of U.S. undergraduates are enrolled in STEM programs. That compares to 33.9 percent of students in Singapore and 31.2 percent in China.

Stanford University reported on a study that found 63 percent of students in China in 2009 entered college through a science track. More than 40 percent of freshmen enrolled in India in 2011 were engineering students.

Ramey said auto manufacturers are short on technicians.

"If you have the right skills you are highly employable," he said.

Ramey said he doesn't believe there's enough of a push to promote the high earnings potential in STEM jobs, some of which may require a few years of schooling past high school, but not a four-year bachelor's degree.

Tri-Rivers Superintendent Chuck Speelman agreed.

"If they understand there are career opportunities and what they are, we can interest them at young ages," he said.

Speelman said schools have to find ways to engage students more in these areas, which typically are seen as difficult and complicated.

"Some kids, you hear they say they are not good at math or science," he said. "When the kids are engaged in their learning they don't complain as much about how hard the work is."

Speelman and Ramey encouraged parents to suggest STEM careers to their children and encourage them to take tougher courses in high school.

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James Miller/The Marion Star

United States Navy Vice-Admiral James Wisecup simulates a jet fighter attempting

Art caption: to land on a swaying aircraft carrier to explain the importance of the science behind

creating the perfect flight deck coating. Wisecup spoke Tuesday to educators at

Marion Technical College.

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