



COMPUTER SCIENCE

AN ADDITIONAL “R” IN EDUCATION

COMPUTER SCIENCE

- Only approximately 2-3% of NC students take any computer science course
- CS Courses can be taught through AP, CTE, NCVPS, CC and other local options



COMPUTER SCIENCE

- **NC Computer Science Standards center around five core concepts:**
 - **Computing Systems**
 - **Networks and the Internet**
 - **Data and Analysis**
 - **Algorithms and Programming**
 - **Impacts of Computing**



COMPUTER SCIENCE

- **The effects from automation have thus far impacted mostly blue-collar workers, however emerging technology and innovation is already beginning to threaten white-collar workers**
- **Some high skilled workers will flourish, but many more will be displaced from their current work and will need to seek additional skills and training and/or face extended unemployment**



COMPUTER SCIENCE

- **North Carolina has nearly 30,000 unfilled jobs requiring some level of computer science skills.**
- **Estimates are that at least 70% of all jobs will require computer science skills by the year 2040.**
- **NC currently has about 250 teachers trained to teach CS. We need an additional 2,800. And we are falling behind neighbors.**



COMPUTER SCIENCE

- **NC has seen a 20,000 plus increase in unfilled IT job postings since 2019**
- **Despite recent news of large layoffs among several tech giants, the field is growing and there is a shift toward more IT jobs in the finance and the automotive industry**

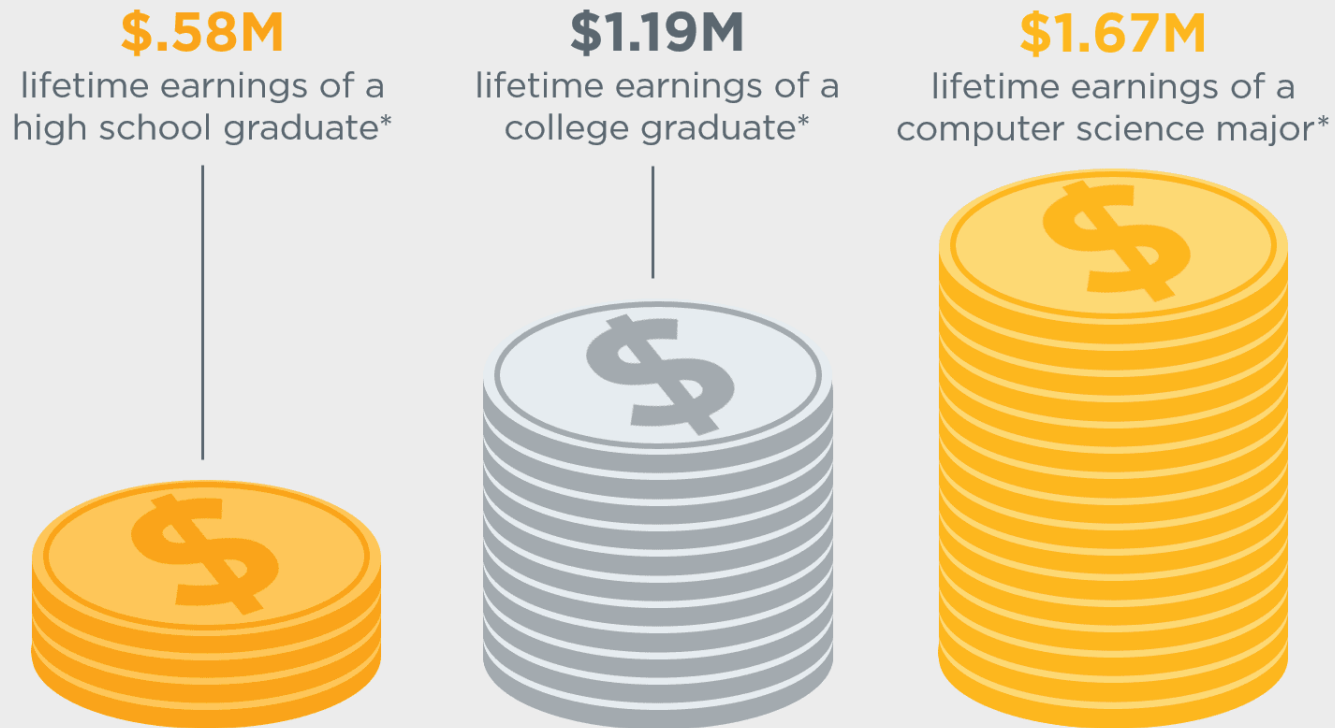


COMPUTER SCIENCE

- “Students are still getting multiple job offers,” said Brent Winkelman, chief of staff for the computer science department at the University of Texas at Austin. “They just may not come from Meta, from Twitter or from Amazon. They’re going to come from places like G.M., Toyota or Lockheed.”



The value of a computer science education



A computer science major can earn **40% more** than the college average.

*Net present value today

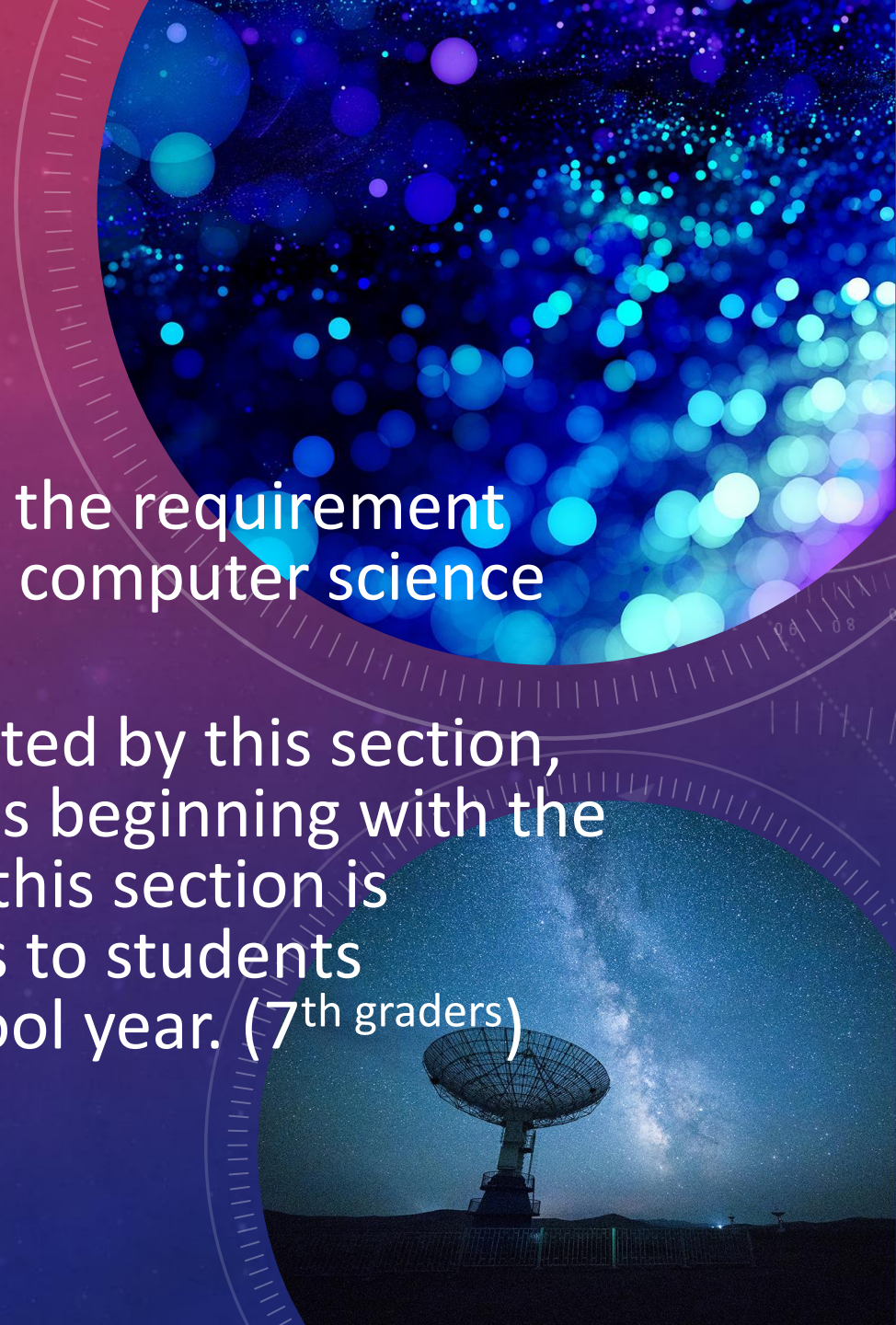
DPI RECOMMENDATIONS

- Require Computer Science to count as a “Science Credit”
- Require Middle Schools to offer exploratory CS courses
- Provide enough “runway” for districts to get this done right
- Continue to fund stipends and PD dollars for CS
- Continue to fund CS/STEM related grants/programs



HOUSE BILL 8

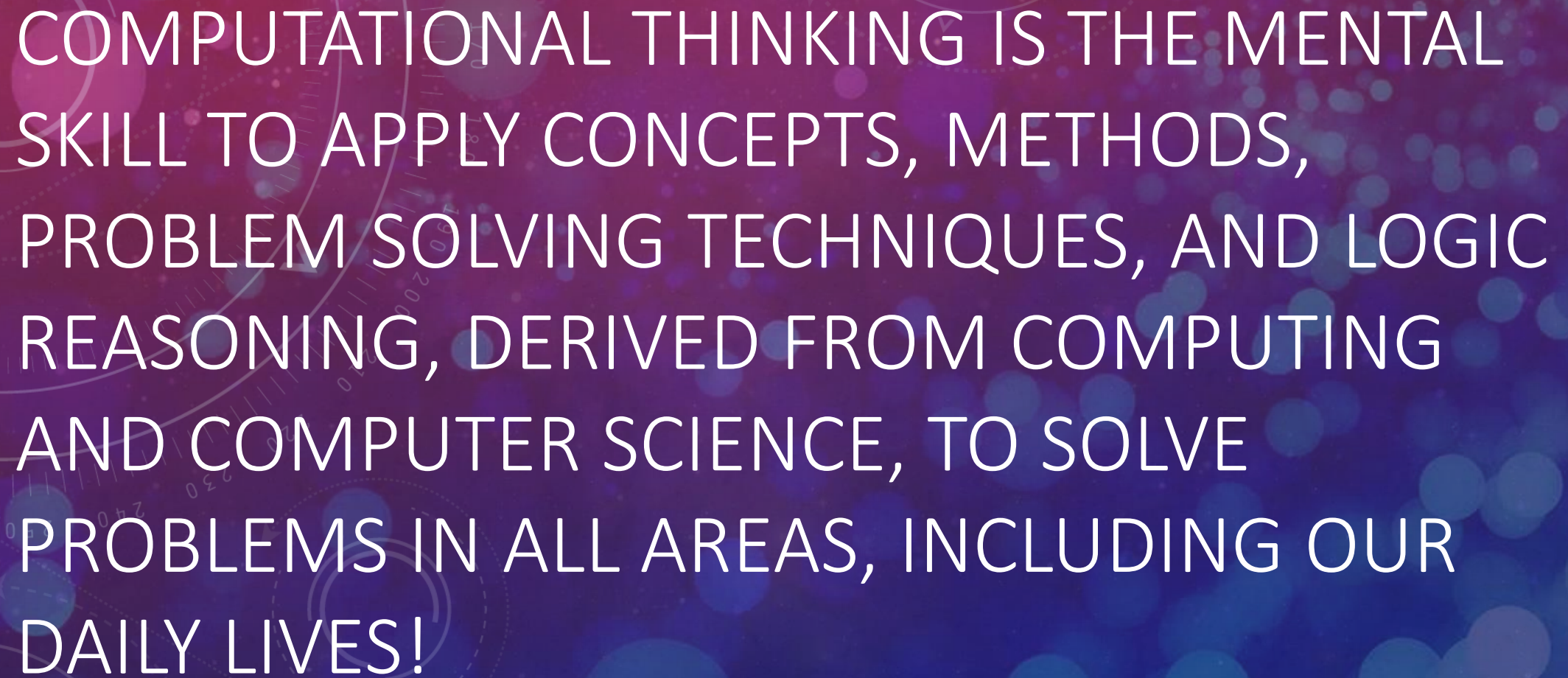
- The standard course of study shall include the requirement that students complete a high school level computer science course.
- Subsection (b) of G.S. 115C-81.90, as enacted by this section, becomes effective July 1, 2025, and applies beginning with the 2025-2026 school year. The remainder of this section is effective when it becomes law and applies to students entering grade nine in the 2024-2025 school year. (7th graders)



COMPUTER SCIENCE

- **Domestic and Foreign ‘hacking’ every day**
- **Artificial Intelligence**
- **The rise of ChatGBT**
- **Code.Org and the Friday Center at NC State**
- **Additional course to be identified by July 1, 2023**





COMPUTATIONAL THINKING IS THE MENTAL SKILL TO APPLY CONCEPTS, METHODS, PROBLEM SOLVING TECHNIQUES, AND LOGIC REASONING, DERIVED FROM COMPUTING AND COMPUTER SCIENCE, TO SOLVE PROBLEMS IN ALL AREAS, INCLUDING OUR DAILY LIVES!



THANK YOU!