The background of the slide is a composite image. On the left, there is a green circuit board with intricate white traces. On the right, a dark, high-contrast image of a microprocessor chip is visible, showing its pins and internal structure. The entire slide is framed by a green border with diagonal stripes.

Microprocessor Manufacturing

Elijah Dusute & Kian Leach | SEWD 2

What do microprocessor manufacturers do?

Solve

Solve the issue - What is your circuit's purpose? What problem is it solving? Is it improving an earlier design, or is it creating a new solution to a problem?

Design

Design the board - Create a design that maps out the chip's layout and allocates the resources necessary to use it.

Manufacture and test

Manufacture and test the board. Does it work? If it does, then you've done your job

What education is necessary?

Education for microprocessor manufacturing varies by role, with a high school diploma sufficient for some technician positions, while engineering and design roles require at least a bachelor's degree

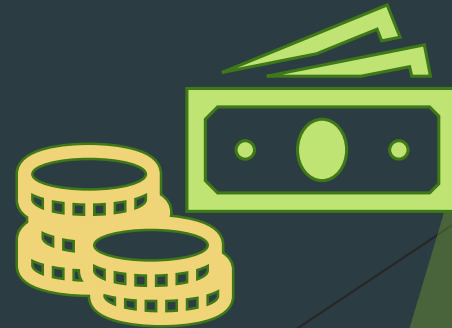
Salary Snapshot

average annual salaries for engineers

around \$155,020 per year

Entry averages at \$85,430

Senior averages at \$223,820



Job Outlook

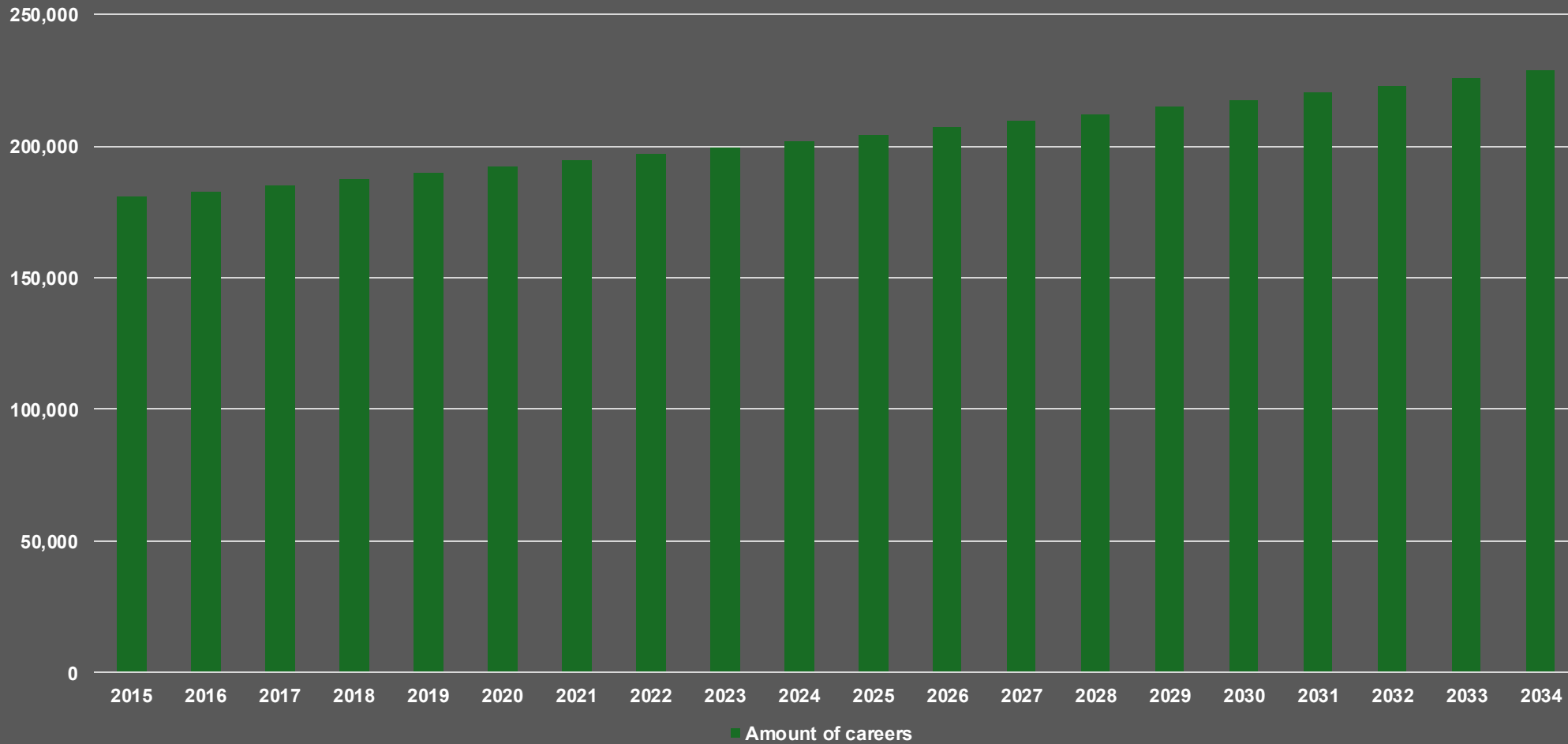
- ▶ The job outlook for microprocessor manufacturing is positive, with a projected growth much faster than average, driven by the increasing demand for electronics, AI, and electric vehicles.
- ▶ Employment for semiconductor processing technicians is projected to grow 11% from 2024 to 2034.

Coursework Connection

- ▶ The connection of microprocessor manufacturing to our coursework is more related to how software interacts with hardware.
- ▶ In order to understand how hardware works, it is absolutely necessary to understand how the software works, otherwise you only have half the understanding to a computer.

Job growth over time

Estimated job growth (2015 - 2034)



References

1. www.bls.gov - Average Salary / Job Information