

# Delaware Pathways








**A MEMBER OF THE  
PATHWAYS TO PROSPERITY NETWORK**



# Labor Market

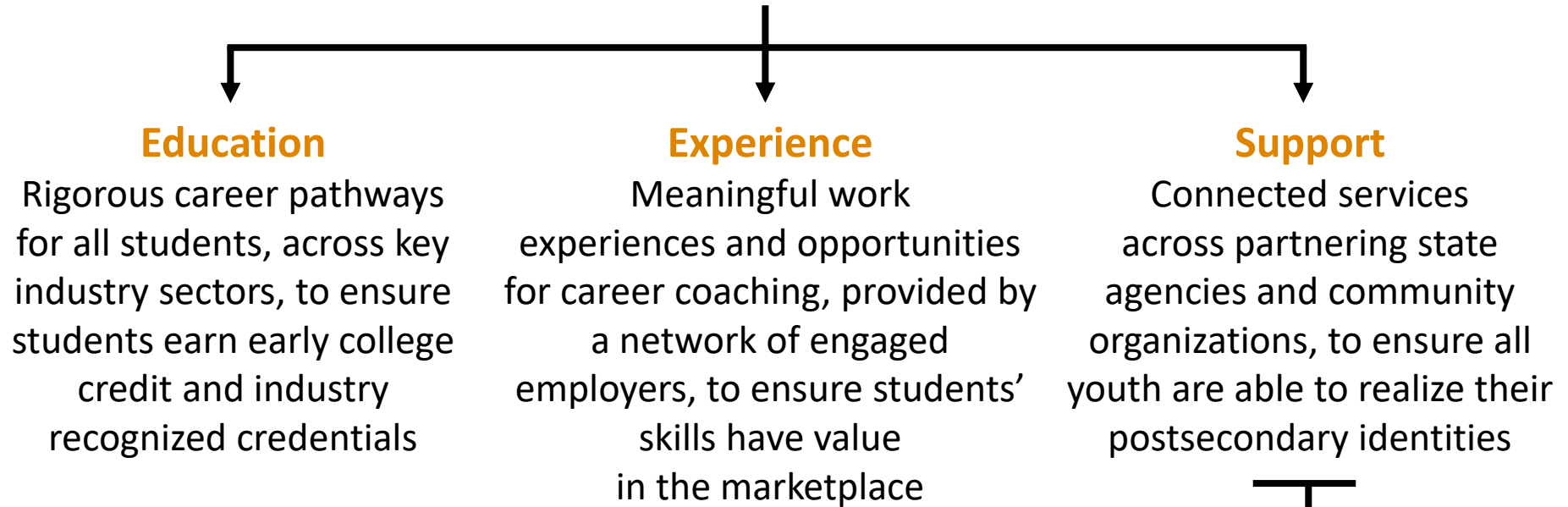
Cluster	% of Middle Skill Jobs	% of High Skill Jobs	Growth Rate	Avg. Wage
<b>All Delaware</b>	<b>33%</b>	<b>29%</b>	<b>8.1%</b>	<b>\$49,520</b>
Health Science	37%	49%	15.4%	\$63,320
Information Technology	25%	75%	13.2%	\$86,953
Human Services	24%	42%	13.1%	\$34,850
Architecture & Construction	52%	10%	12.7%	\$48,452
Education & Training	7%	93%	10.2%	\$55,372
Finance	36%	50%	9.2%	\$72,418
Hospitality & Tourism	35%	<5%	8.9%	\$23,957

Delaware Pathways  
(14 total)

-  Allied Health
-  Computer Science
-  Nurse Assistant
-  Engineering
-  Teacher Academy
-  Finance
-  Culinary & Hospitality

# Systems Model

## Delaware's Career Pathways System



### Opportunities for all Students

Acquiring both academic and technical skills in combination with meaningful work experience gives students the freedom to choose their life's path

# Computer Science Pathway



**Course 1**



## **Exploring Computer Science (ECS)**

Students are introduced to computers and algorithmic problem-solving including the exploration and examination of instances, design, coding, testing, and verification.



**Course 2**



## **AP Computer Science Principles (CSP)**

Students write programs in Javascript, build web applications, and gain an understanding of the nature and structure of complex data sets.



**Course 3**

## **AP Computer Science A (CSA)**

Students design strategies and methodologies to organize data structures, develop approaches to processing data (algorithms) and the analysis of potential solutions, and discuss the ethical and social implications of computing.

# Cisco Networking Pathway



## Course 1



### **IT Essentials**

Students learn the fundamentals of computer hardware and software and advanced concepts such as security and networking.



## Course 2



### **NDG Linux Essentials**

Students learn the fundamentals of the Linux operating system, command line, and open source concepts, and work with the Linux virtual machine.



## Course 3

### **CCNA: Introduction to Networks**

Students gain an understanding of how networks operate, specifically architecture, structure, functions and components of the Internet and other computer networks.

# Cisco Networking Pathway



**Course 4**



## **CCNA: Routing and Switching Essentials**

Students to operationalize routers and switches in a small network, and configure a router and switch for basic functionality.



**Course 5**



## **CCNA: Scaling Networks**

Students operationalize routers and switches in large, complex networks, as well as configure and troubleshoot routing and switching technologies and protocols.



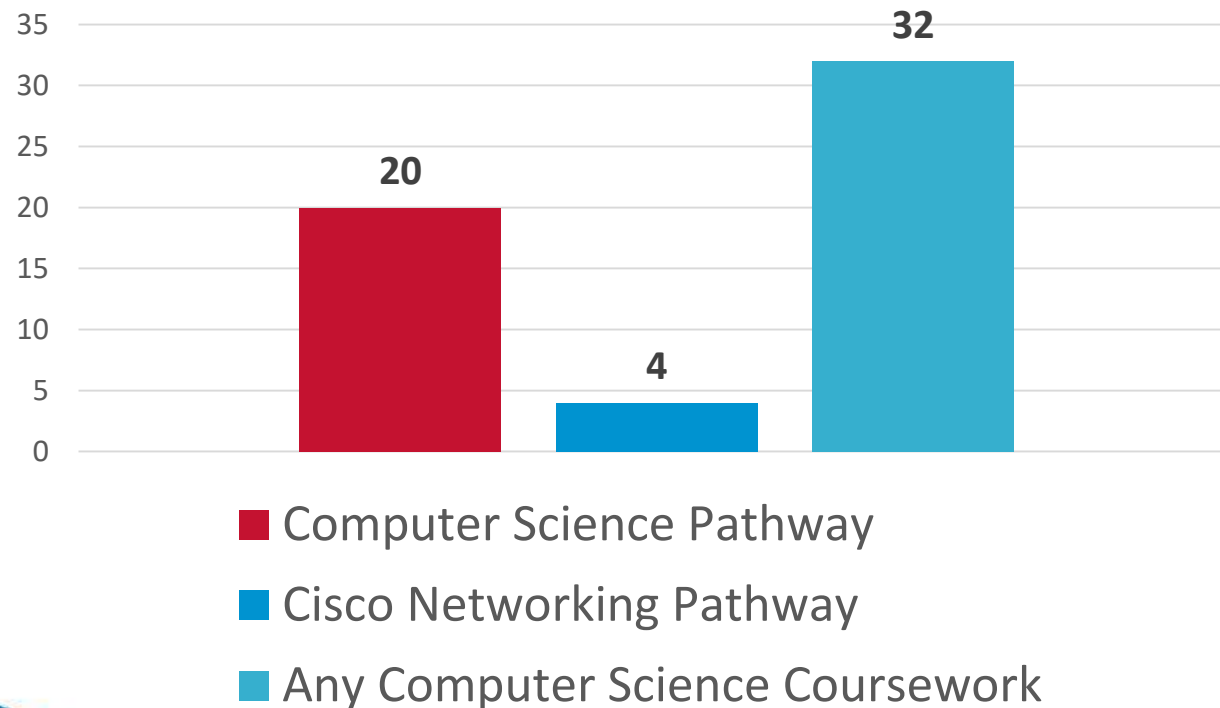
**Course 6**

## **CCNA: Connecting Networks**

Students learn WAN technologies and network services employed by converged applications in a complex network, as well as configure and troubleshoot network devices and implement virtual private networks.

# Quick Facts

**Number of Delaware Schools Offering  
Computer Science Coursework, 2016-17**



Total Number of High School Students  
enrolled in courses defined as  
“Computer Science” (2016-17) =

**2,376**

Total Number of High School Students  
enrolled in Computer Science  
Pathway (2016-17) =

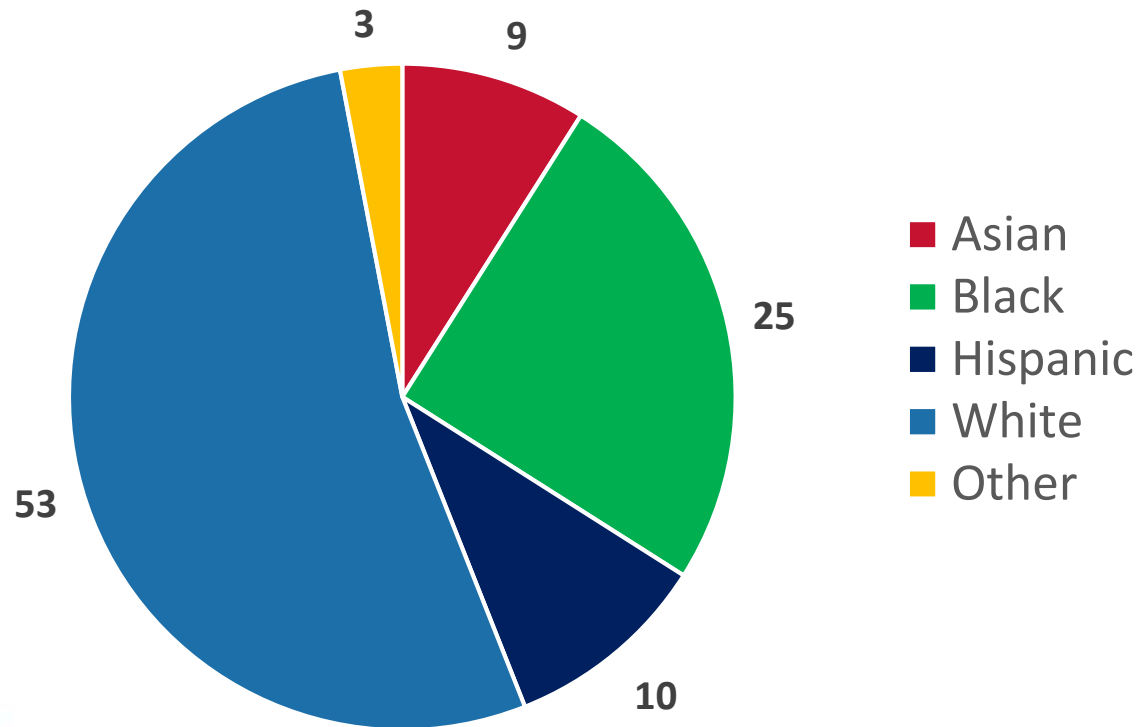
**1,128**

Total Number of High School Students  
enrolled in Cisco Networking  
Pathway (2016-17) =

**93**

# Quick Facts

Percent of Students enrolled in Exploring Computer Science Course by Race/Ethnicity, 2016-17



Additional Information for Exploring Computer Science, 2016-17

Percent of Male Students =

**77%**

Percent of Female Students =

**23%**

Percent of Low-Income Students =

**19%**

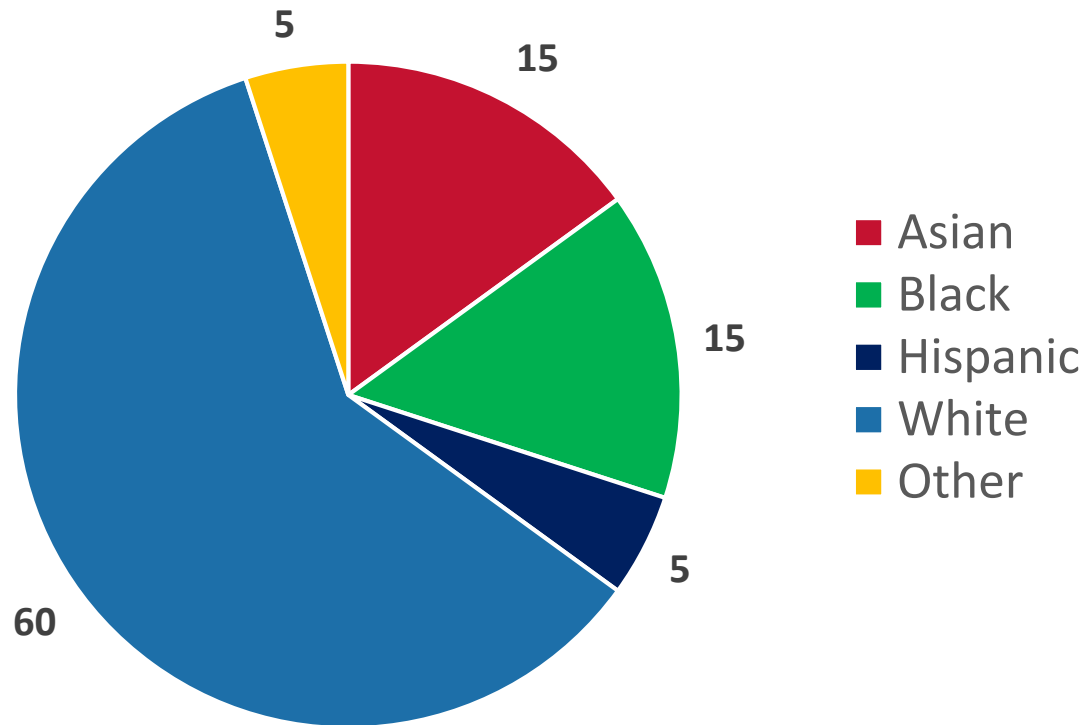
Percent of Special Education Students =

**11%**



# Quick Facts

Percent of Students enrolled in Computer Science Principles (AP) Course by Race/Ethnicity, 2016-17



Additional Information for Computer Science Principles (AP), 2016-17

Percent of Male Students =

**87%**

Percent of Female Students =

**13%**

Percent of Low-Income Students =

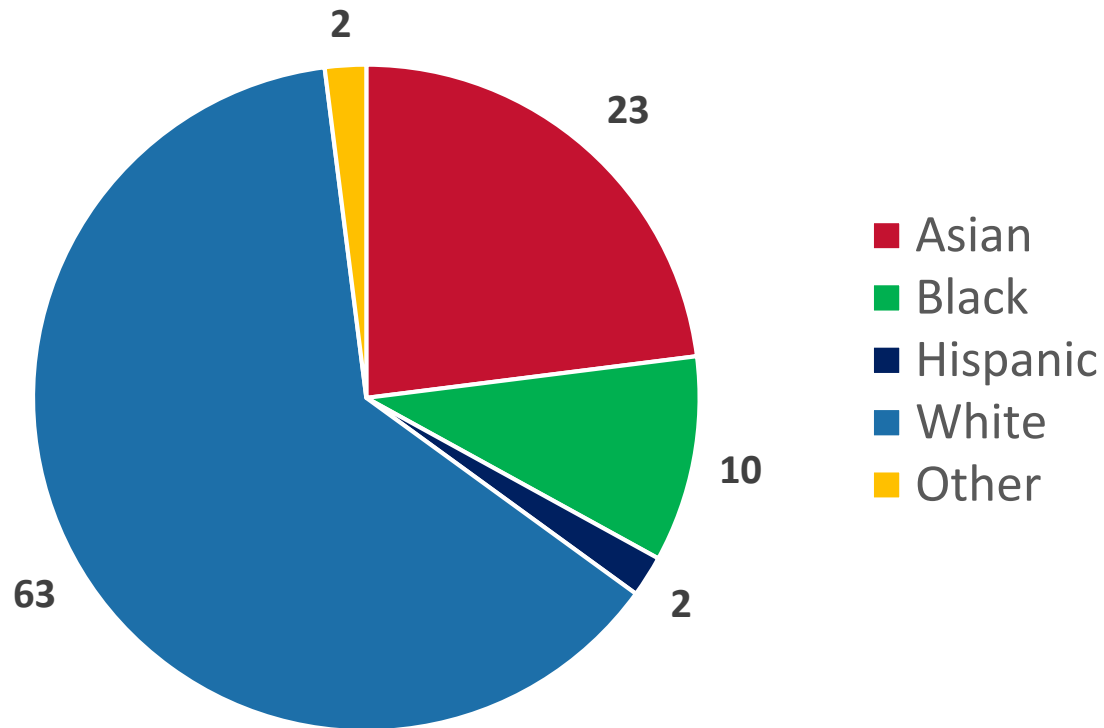
**8%**

Percent of Special Education Students =

**3%**

# Quick Facts

Percent of Students enrolled in AP Computer Science A Course by Race/Ethnicity, 2016-17



Additional Information for AP Computer Science A, 2016-17

Percent of Male Students =

**80%**

Percent of Female Students =

**20%**

Percent of Low-Income Students =

**10%**

Percent of Special Education Students =

**2%**

## Next Steps

- Continue to expand the Computer Science Pathway and Cisco Networking Pathway;
- Expand Edhesive’s Massive Open Online Course (MOOC) option for students interested in AP Computer Science A coursework (no cost to the student);
- Support school districts as they develop and expand Computer Science coursework at the elementary and middle school levels;
- Support school districts and other educational partners to increase the number of underrepresented students who are enrolled in Computer Science coursework; and
- Support state standards development in Computer Science to guide coursework.

# Contact Information

Luke Rhine

CTE and STEM Workgroup  
Delaware Department of Education

[luke.rhine@doe.k12.de.us](mailto:luke.rhine@doe.k12.de.us)

April McCrae

CTE and STEM Workgroup  
Delaware Department of Education

[april.mccrae@doe.k12.de.us](mailto:april.mccrae@doe.k12.de.us)

[www.delawarepathways.org](http://www.delawarepathways.org)

