



FROM
cashier
to CTO

How retail prepares workers for careers in tech.

NRF NATIONAL
RETAIL
FEDERATION

| **Emsi**




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This report was made possible through
the tools and data provided by Emsi.

Retail prepares workers *for* careers *in* tech

Everyone shops. Whether it's online or in-store, weekly grocery trips or holiday spending sprees, we're all intimately acquainted with retail as consumers.

But what many might not realize is that retail represents a broad, complex ecosystem of jobs that goes beyond the cashiers, shelf stockers and sales associates who help customers in stores. Behind the frontlines of every successful retailer is an indispensable trove of people in marketing, logistics, supply chain, user experience, technology and more.

According to official government statistics, the retail industry includes more than 15 million individuals — but this figure only captures employees who work in the store or in the same building as the store. It does not count non-store employees who might work in marketing, logistics, technology, innovation and corporate jobs that exist in headquarters or regional offices across the country.

These government statistics also might not accurately track the career trajectories of people working in retail. Contrary to popular belief, retail jobs are full of opportunity. Data shows retail workers earn foundational skills that support their professional growth in a variety of industries.

This report is the first in a series examining careers in retail and how foundational retail skills can help grow a career in a variety of industries. In this paper, we'll focus on retail and the technology industry, largely on the compatibility between frontline retail roles and computer and technology positions defined as follows:

RETAIL

Cashier
Retail Sales Worker
Sales Manager
Telemarketer
First-line Supervisor of Retail Sales Workers

TECHNOLOGY

Computer Network Support Specialist
Computer Systems Analyst
Software Developer, Systems Software
Software Developer, Applications
Web Developer



Executive Summary



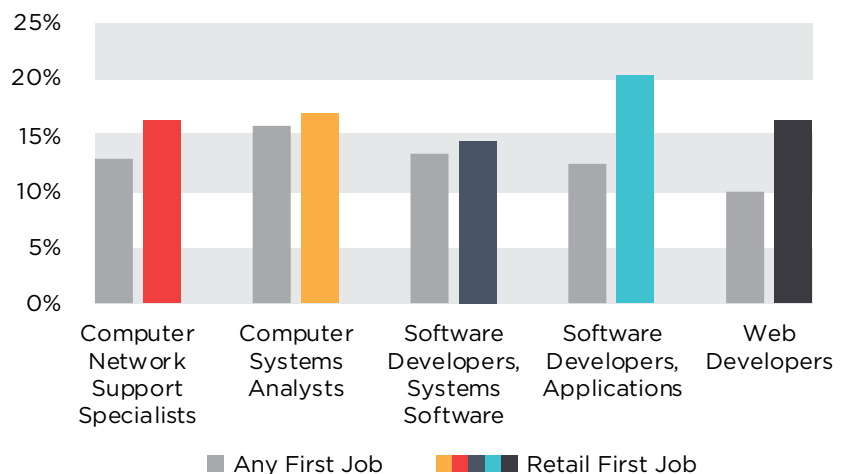
Firmly refuting the idea that retail is irrelevant in an increasingly tech-driven economy, the data drive home two key messages:

- Frontline retail careers increasingly overlap with technology roles
- Working in retail can fast-track a career in technology

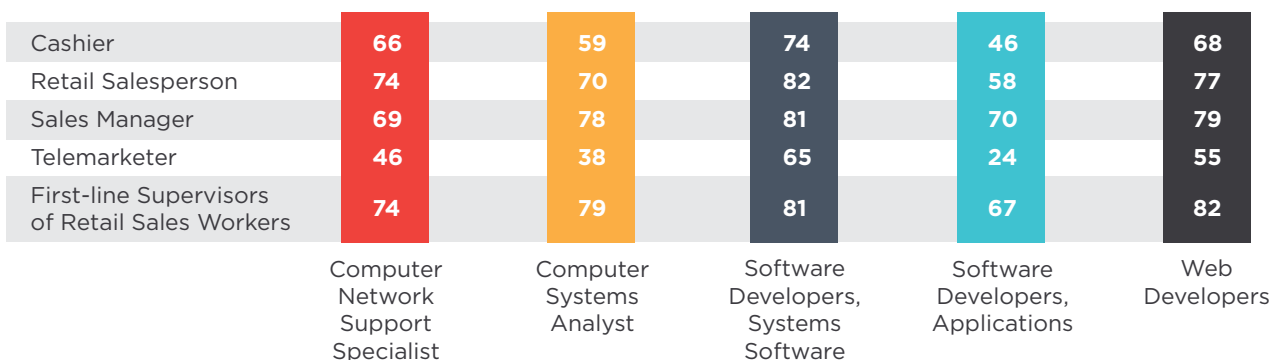
As workforce and talent needs evolve, retail jobs will continue to be pivotal to new careers in the U.S. economy. This report demonstrates that not only do positions in retail foster critical common or “soft” skills that cannot be automated, they provide a fast track to technology career advancement.

Furthermore, the common skills gained in frontline retail roles are highly compatible with the skills needed to succeed in technology jobs. On Emsi’s compatibility job index, retail careers and technology jobs have more overlap than expected, largely driven by the importance of common skills:

PROMOTED AFTER ONE JOB CHANGE



COMPATABILITY INDEX (0-100 SCALE)



Retail Foundational Skills

RETAIL JOBS PROVIDE FOUNDATIONAL SKILLS

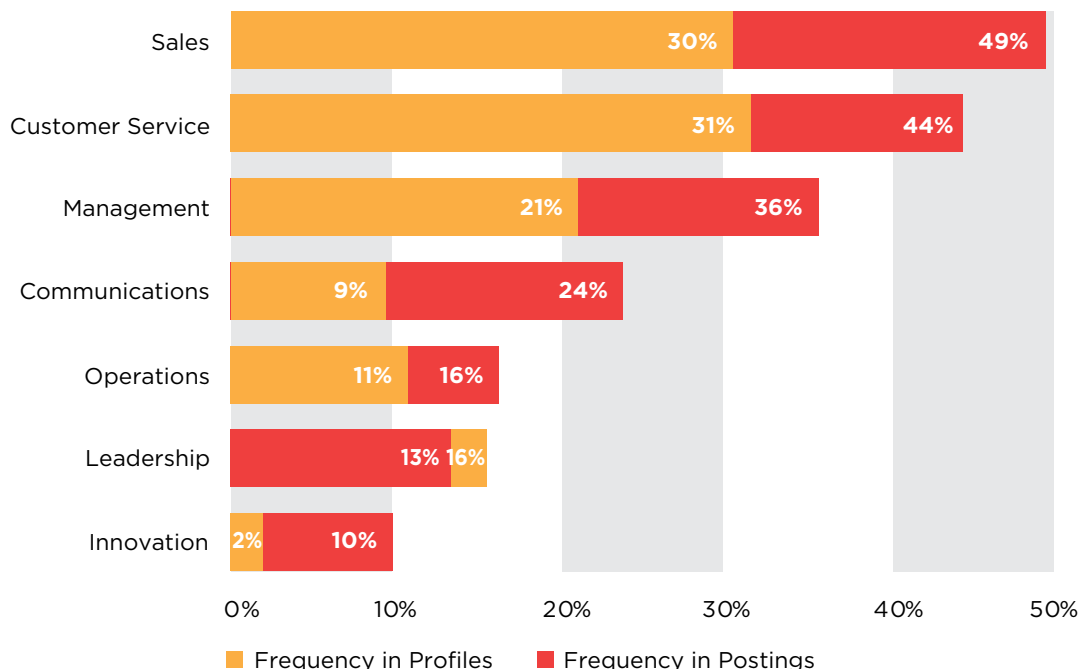
Employers are increasingly recognizing the value of soft, or “human,” skills — in fact, **human skills like leadership, communication and problem solving are among the most in-demand skills in the labor market right now.** To learn more visit economicmodeling.com/robot-ready-reports/. After all, it's often easier to teach an employee a new coding language than it is to teach them how to communicate well.

What soft skills do retail workers have these days? We looked at Emsi's job postings data to find which skills retail employers are looking for and which skills retail workers list on their resumes and profiles.

Many of the top in-demand human skills mentioned earlier are included in the list below. It's also interesting to note the disparity between employer demand (left side) and employee supply (right side), particularly regarding management and communications.

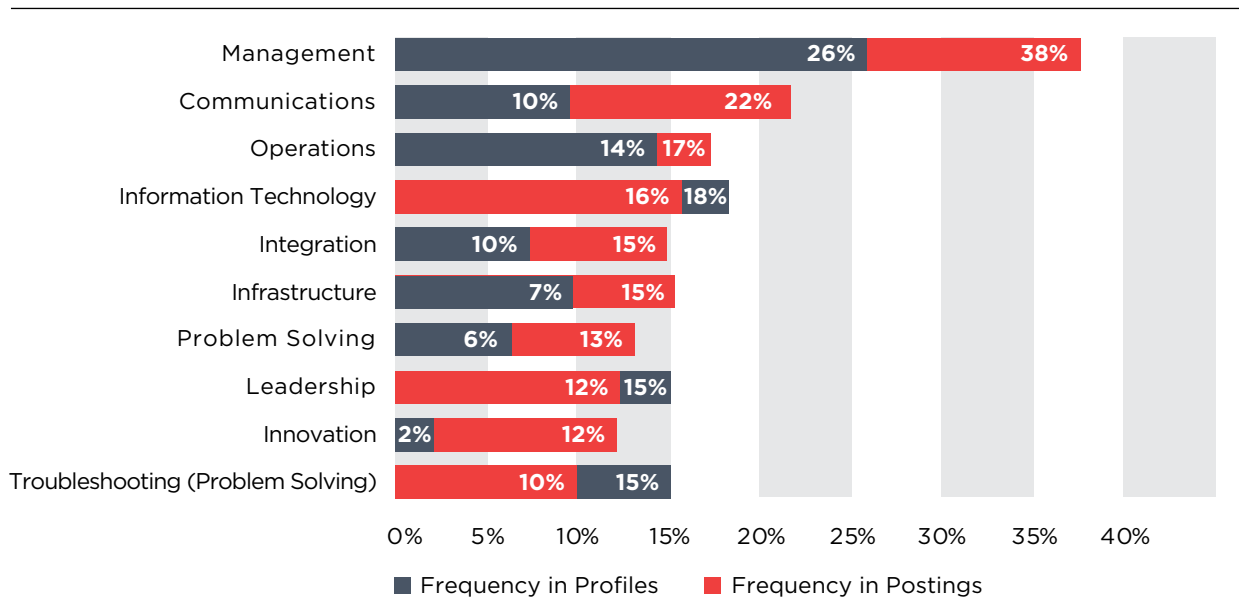


TOP COMMON SKILLS IN RETAIL JOB POSTINGS



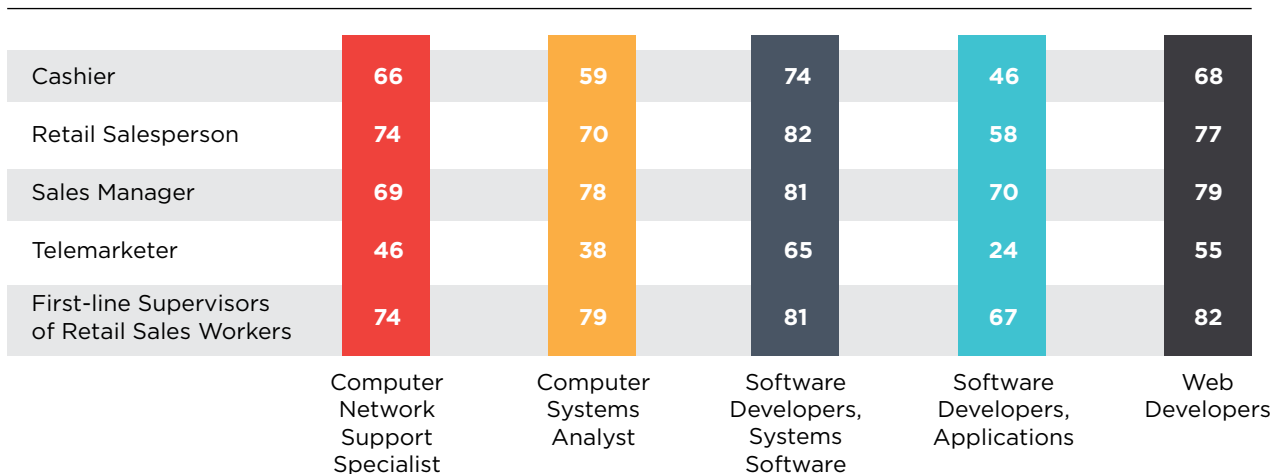
Retail Foundational Skills *Continued*

TOP COMMON SKILLS IN TECHNOLOGY JOB POSTINGS



The top three common skills requested in technology job postings are management, communications and operations. Both sectors (retail and technology) are requesting the same skill sets, and the roles overall are compatible. Using Emsi's compatibility index (driven by Department of Labor O*NET data), we see that entry level retail roles and technology careers have significant compatibility driven by the importance of common or soft skills prevalent in retail careers:

COMPATABILITY INDEX (0-100 SCALE)



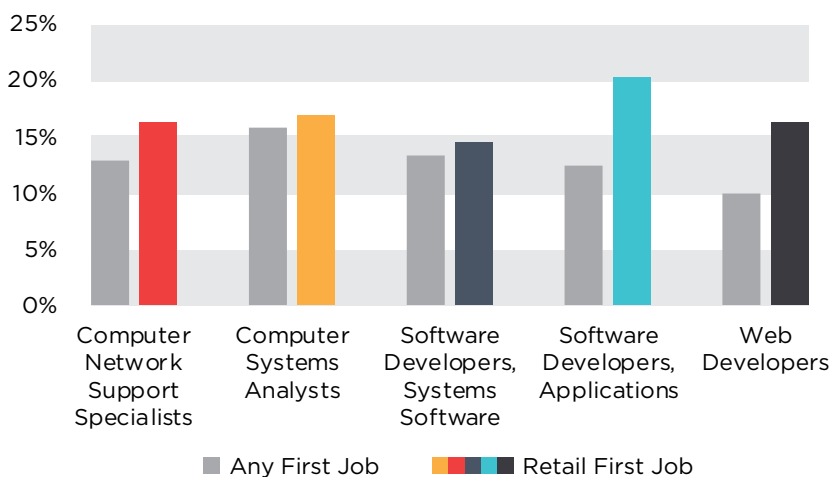
Tech Advancement *with* Retail Foundational Skills

RETAIL JOBS HELP WORKERS ADVANCE FASTER

Retail jobs provide solid foundational skills that can be used in tech jobs; they also help workers advance into managerial roles faster. For example, a software developer with a background in retail is nearly 8 percent more likely to be promoted to a managerial role than a developer without a retail background. Web developers with a retail background are more than 6 percent likely to be promoted to a managerial role than those with a non-retail background.

The chart below demonstrates how a frontline retail background affects the likelihood of promotion to a managerial role for different technology jobs.

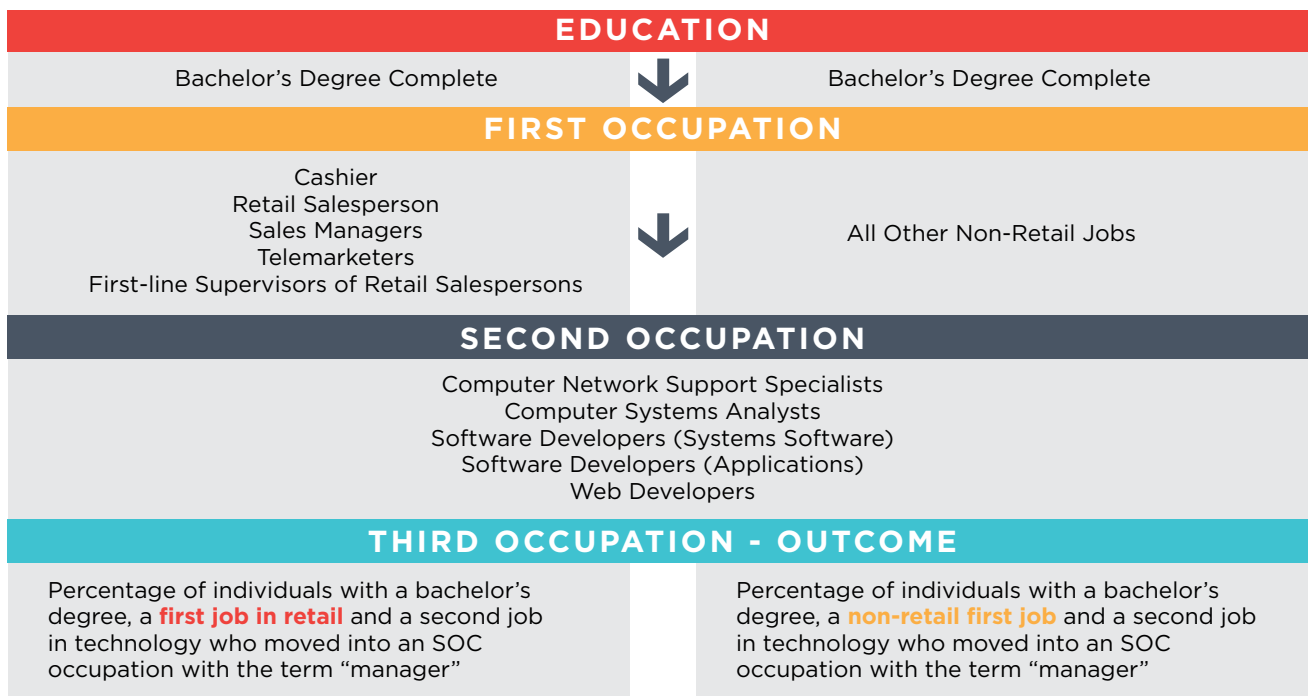
PROMOTED AFTER ONE JOB CHANGE



Look to the following charts for a deeper dive on each technology career.

DATA AND METHODOLOGY — HOW CAN A RETAIL BACKGROUND HELP YOU ADVANCE IN TECHNOLOGY?

To demonstrate how a retail background can help workers advance in technology, the analysis used the following approach. More information on specific roles can be found on the following pages.



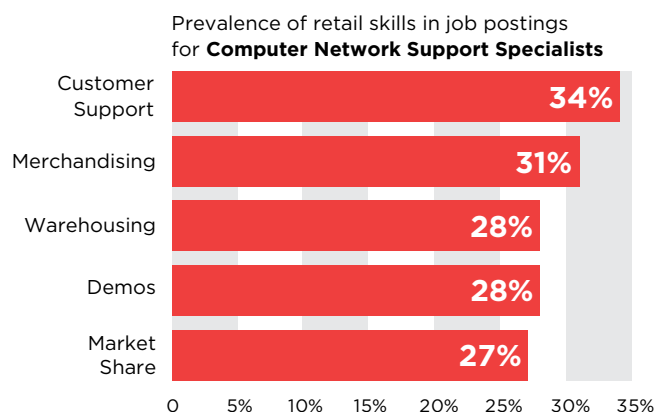
COMPUTER NETWORK SUPPORT SPECIALIST

Position description: Analyze, test, troubleshoot and evaluate existing network systems, such as local area network (LAN), wide area network (WAN) and internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption. (O*NET Online)

2018 Salary: **\$62,405**

2018-2023 Job Growth: **6%**

Average compatibility with retail frontline roles: **65.8**



How does a retail background impact promotion to a managerial role?

Promotion rate after one job change for former retail employees:

16.4%

Promotion rate after one job change for non-retail former employees:

13.0%

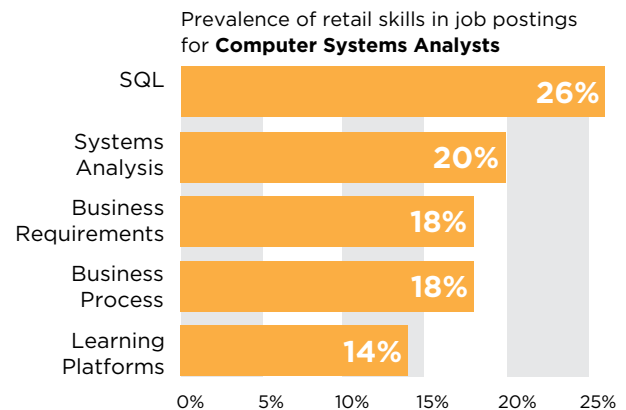
COMPUTER SYSTEMS ANALYSTS

Position description: Analyze science, engineering, business and other data processing problems to implement and improve computer systems. Analyze user requirements, procedures and problems to automate or improve existing systems and review computer system capabilities, workflow and scheduling limitations. May analyze or recommend commercially available software. (O*NET Online)

2018 Salary: **\$87,143**

2018-2023 Job Growth: **7%**

Average compatibility with retail frontline roles: **64.8**



How does a retail background impact promotion to a managerial role?

Promotion rate after one job change for former retail employees:

17.1%

Promotion rate after one job change for non-retail former employees:

16.0%

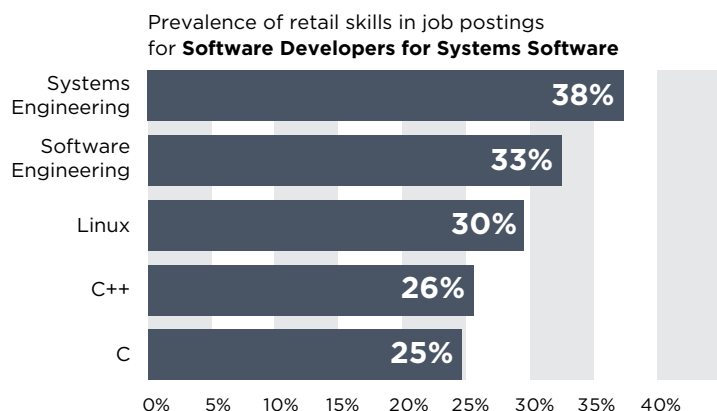
SOFTWARE DEVELOPERS, SYSTEMS SOFTWARE

Position description: Research, design, develop and test operating systems-level software, compilers and network distribution software for medical, industrial, military, communications, aerospace, business, scientific and general computing applications. Set operational specifications and formulate and analyze software requirements. May design embedded systems software. (O*NET Online)

2018 Salary: **\$106,653**

2018-2023 Job Growth: **8%**

Average compatibility with retail frontline roles: **64.8**



How does a retail background impact promotion to a managerial role?

Promotion rate after one job change for former retail employees:

14.6%

Promotion rate after one job change for non-retail former employees:

13.3%

SOFTWARE DEVELOPERS, APPLICATIONS

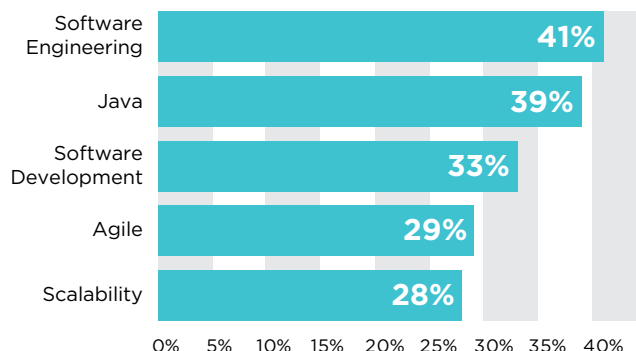
Position description: Develop, create, and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. May supervise computer programmers. (O*NET Online)

2018 Salary: **\$102,768**

2018-2023 Job Growth: **14%**

Average compatibility with retail frontline roles: **53**

Prevalence of retail skills in job postings for **Software Developers for Applications**



How does a retail background impact promotion to a managerial role?

Promotion rate after one job change for former retail employees:

20.4%

Promotion rate after one job change for non-retail former employees:

12.5%

WEB DEVELOPERS

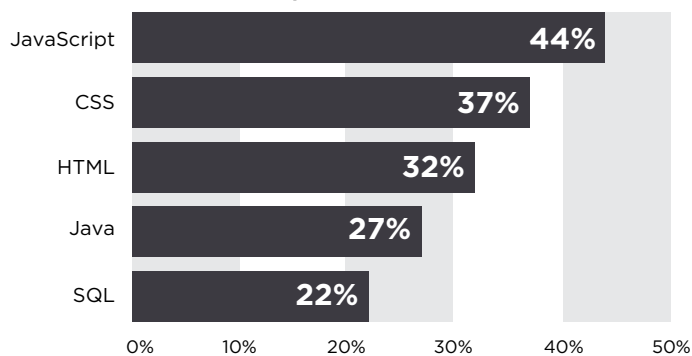
Position description: Design, create and modify websites. Analyze user needs to implement website content, graphics, performance and capacity. May integrate websites with other computer applications. May convert written, graphic, audio and video components to compatible web formats by using software designed to facilitate the creation of web and multimedia content. (O*NET Online)

2018 Salary: **\$58,409**

2018-2023 Job Growth: **10%**

Average compatibility with retail frontline roles: **64.8**

Prevalence of retail skills in job postings for **Web Developers**



How does a retail background impact promotion to a managerial role?

Promotion rate after one job change for former retail employees:

16.4%

Promotion rate after one job change for non-retail former employees:

10.1%

Conclusion

Despite the false narratives that frontline retail jobs lack opportunity for advancement or that innovative technology careers are concentrated only in Silicon Valley, the data shows a different story. Results from Emsi resume and labor market data demonstrate that retail workers learn valuable skills that can be applied in countless industries. Retail experience also enables employees in the tech sector to move up the ladder faster than workers with non-retail backgrounds.

The data also shows a strong, tangible connection between retail jobs and technology jobs.

With the right education or upskilling, retail workers can supplement their on-the-job experience to also be successful in the technology industry.



Methodology *and* Sources

METHODOLOGY APPENDIX

To answer the central question of how a retail career can help workers advance in technology careers, workers' resumes were analyzed to track employees across their career growth. The analysis relies on a robust database of resumes to track the career progressions of professionals. The Emsi database contains more than 100 million resumes that can be filtered by company, job title, industry, skills and more. Converting a text-based resume into common terms and data points allows for tracking career growth across occupation and educational changes.

This report shows the findings of an assessment of technology professionals that did and did not have

a retail frontline job as their first post-bachelor's degree job. The hypothesis examined in this report is that — with a firm grounding in retail professional skills — retail-trained technologists were able to more quickly advance into managerial roles compared with peers that had a different first job. We recognize there are a variety of ways to grow and advance in a career that do not involve moving into a management role. However, moving from a team member to manager is certainly one way to demonstrate career growth.

Other data contained in this report is derived from the Emsi Developer platform.
To learn more about Emsi data and sources, please visit economicmodeling.com.

