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# Workforce Needs For Maryland

**Catalog of professional workforce needs for the State of Maryland that align to the skills and knowledge of The University of Maryland's College of Information graduates.**

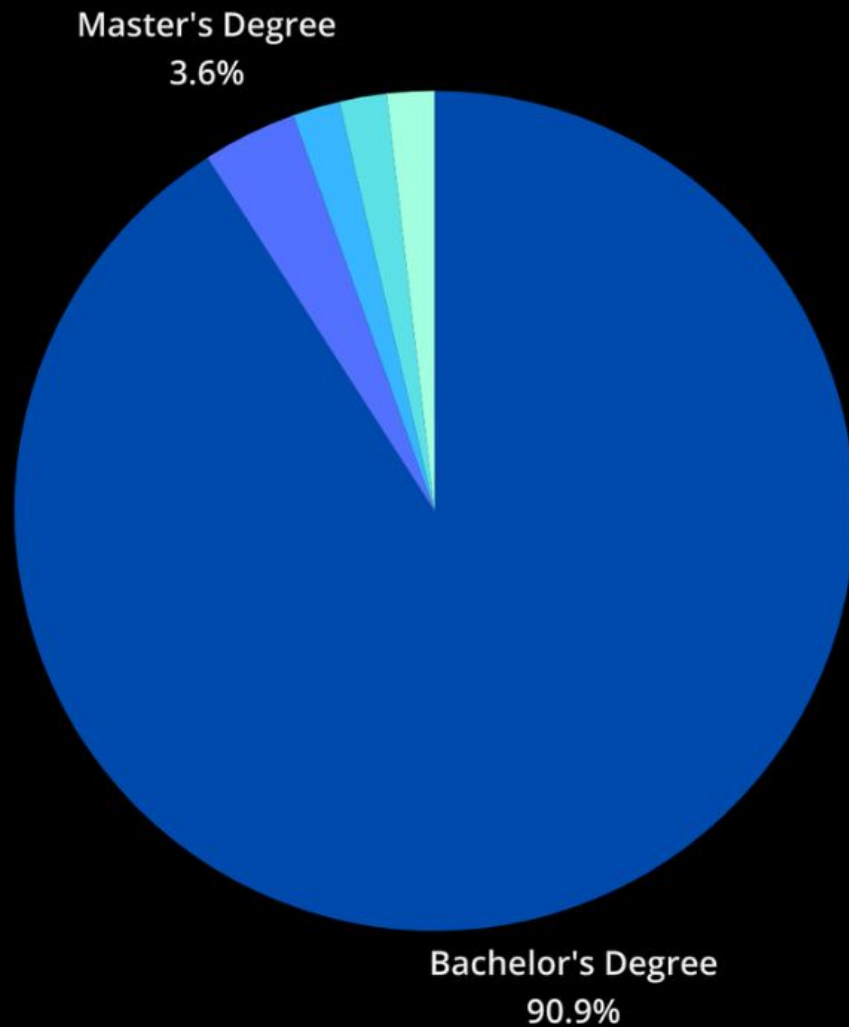


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### Key Findings

- ➔ **Fastest growing occupation in Maryland short term (2022-2025) is Data Scientist. Projected growth of 10.67%.**
- ➔ **Fastest growing related occupations in Maryland long term (2025-2032) are Data Scientist and Information Security Analyst. Projected growth of 39.32% and 38.81% respectively.**
- ➔ **UMD's Information Science program directly prepares students for these occupations through specialized courses in programming, data science, statistics, information assurance, and cybersecurity policy, aligning academic training with Maryland's fastest growing tech occupations.**

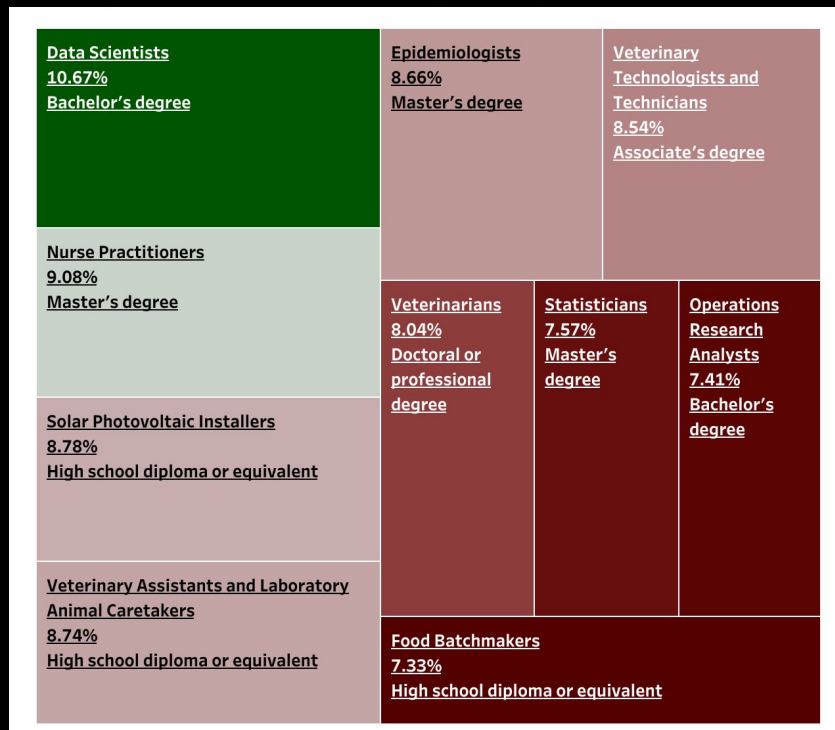


Current Info-related job listings are seeking more people who hold

**BACHELOR'S DEGREES**

## Short Term Occupational Projections (2022-2025)

Top 10 Growing Occupations with Educational Value Short Term (2022-2025)



# Short Term Occupational Projections (2023-2025)

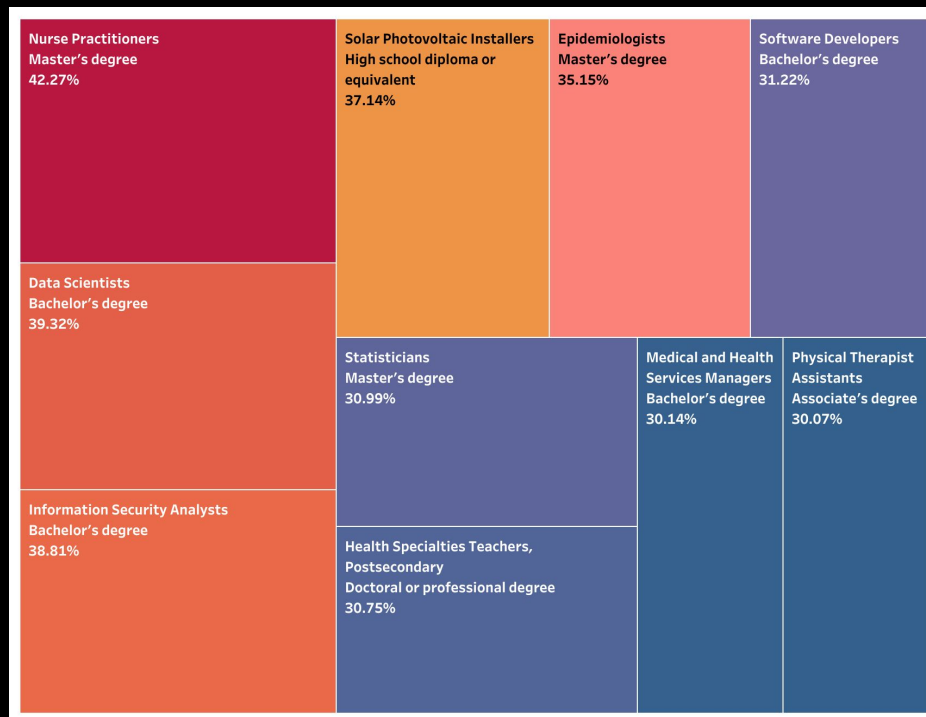
## Relevant Employment Projection

SOC Title	Base Employment	Projection Employment	Numeric Change	Percent Change	Replacement(..	Total Openings
Computer and Information Research Sci..	2,333	2,835	502	21.52%	1,609	2,111
Computer and Information Systems Ma..	15,066	17,927	2,861	18.99%	10,527	13,388
Computer and Mathematical Occupatio..	153,172	185,292	32,120	20.97%	99,055	131,175
Computer Hardware Engineers	2,755	2,958	203	7.37%	1,530	1,733
Computer Network Architects	7,677	8,417	740	9.64%	4,216	4,956
Computer Network Support Specialists	9,848	11,221	1,373	13.94%	6,911	8,284
Computer Numerically Controlled Tool ..	2,095	1,897	-198	-9.45%	1,801	1,603
Computer Numerically Controlled Tool ..	313	365	52	16.61%	306	358
Computer Occupations	142,870	171,904	29,034	20.32%	92,092	121,126
Computer Occupations, All Other	22,759	26,979	4,220	18.54%	15,374	19,594
Computer Programmers	3,604	3,347	-257	-7.13%	2,093	1,836
Computer Science Teachers, Postsecon..	1,042	1,204	162	15.55%	874	1,036
Computer Systems Analysts	15,524	17,983	2,459	15.84%	9,762	12,221
Computer User Support Specialists	12,183	13,480	1,297	10.65%	8,418	9,715
Computer, Automated Teller, and Offic..	1,726	1,578	-148	-8.57%	1,587	1,439
Electronics Engineers, Except Computer	3,259	3,473	214	6.57%	1,779	1,993
Network and Computer Systems Admin..	9,131	9,954	823	9.01%	5,271	6,094
Office Machine Operators, Except Comp..	338	302	-36	-10.65%	429	393
Data Entry Keyers	2,127	1,664	-463	-21.77%	2,191	1,728
Data Scientists	2,396	3,338	942	39.32%	1,694	2,636
Database Administrators	2,119	2,373	254	11.99%	1,289	1,543
Database Architects	777	876	99	12.74%	474	573
Computer and Information Research Sci..	2,333	2,835	502	21.52%	1,609	2,111
Computer and Information Systems Ma..	15,066	17,927	2,861	18.99%	10,527	13,388
Health Information Technologists and ..	1,728	2,077	349	20.20%	1,145	1,494
Information and Record Clerks	90,318	89,067	-1,251	-1.39%	115,314	114,063
Information and Record Clerks, All Other	3,065	3,238	173	5.64%	3,558	3,731
Information Security Analysts	9,291	12,897	3,606	38.81%	6,492	10,098
Receptionists and Information Clerks	18,574	19,199	625	3.36%	25,079	25,704

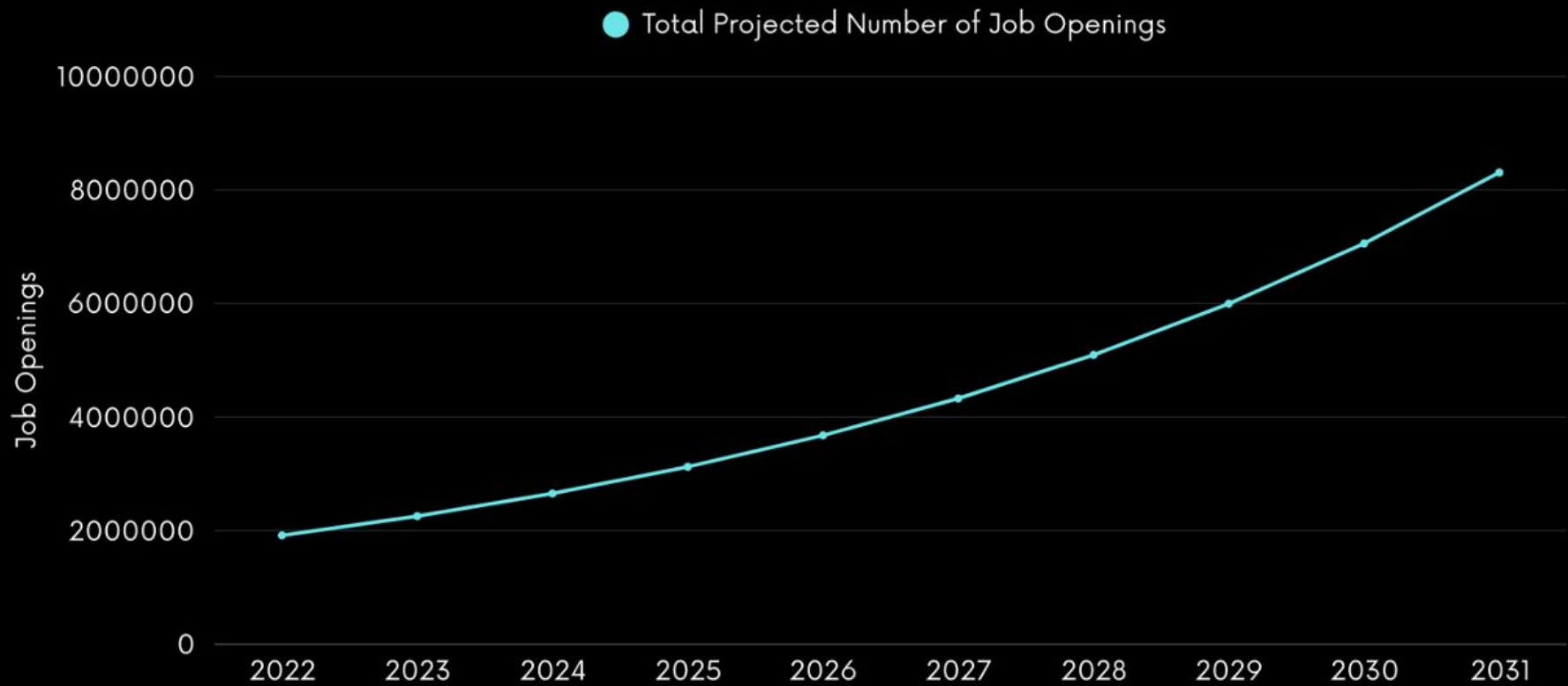
([labor.maryland.gov/lmi/iandoproj/](http://labor.maryland.gov/lmi/iandoproj/))

# Long Term Occupational Projections (2023-2032)

Top 10 Growing Occupations with Educational Value Long Term (2022-2032)



Job openings in the state of Maryland are projected to increase by an average of **10.7% each year beyond 2024.**



## Data Scientists Workforce Needs

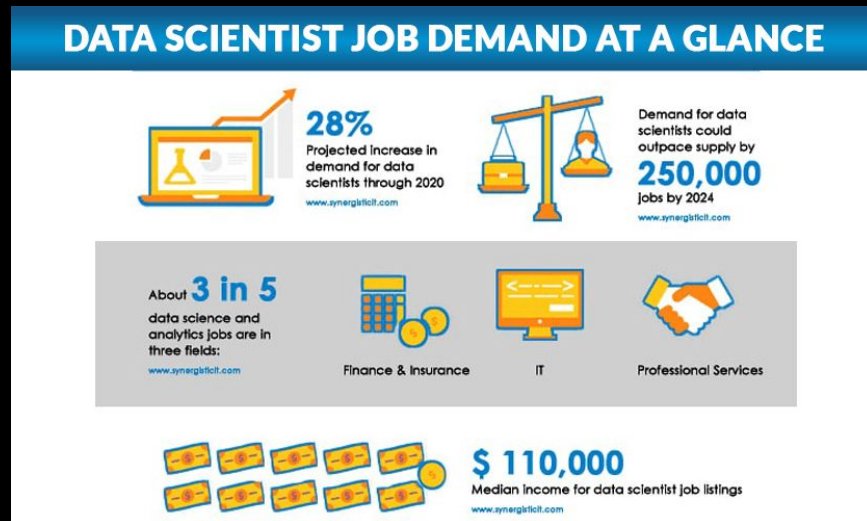
**Short-Term Growth (2023–2025):** Data Scientists are the fastest-growing occupation.

**Long-Term Growth (2022–2032):** Sustained demand in **data analytics, big data, and business intelligence.**

### INFO Skills Match:

- Python for data analysis
- Statistical analysis and spreadsheet modeling
- Database Systems, Data Management
- Data visualization, bias recognition, and practical projects

Courses that offer these skills: INST126, INST127, INST314, INST326, INST327, INST354, INST414, INST447, INST452, INST462



### Target Job Titles:

- Data Analyst
- Business Intelligence Analyst
- Data Scientist
- Data Engineer



# Cybersecurity & Information Security Workforce Needs

## Workforce Need:

- Top Long-Term Need: Information Security Analysts
- Consistent demand across public sector, healthcare, and finance

## INFO Skills Match:

- Risk assessment, threat modeling, intrusion detection
- Hands-on with tools like VPNs, firewalls, encryption methods
- Courses emphasizing governance, compliance, and policy writing
- Security labs, ethical hacking, and real-world security simulations

Courses that offer these skills: INST126, INST127, INST326, INST346, INST364, INST366, INST455, INST456, INST464, INST467

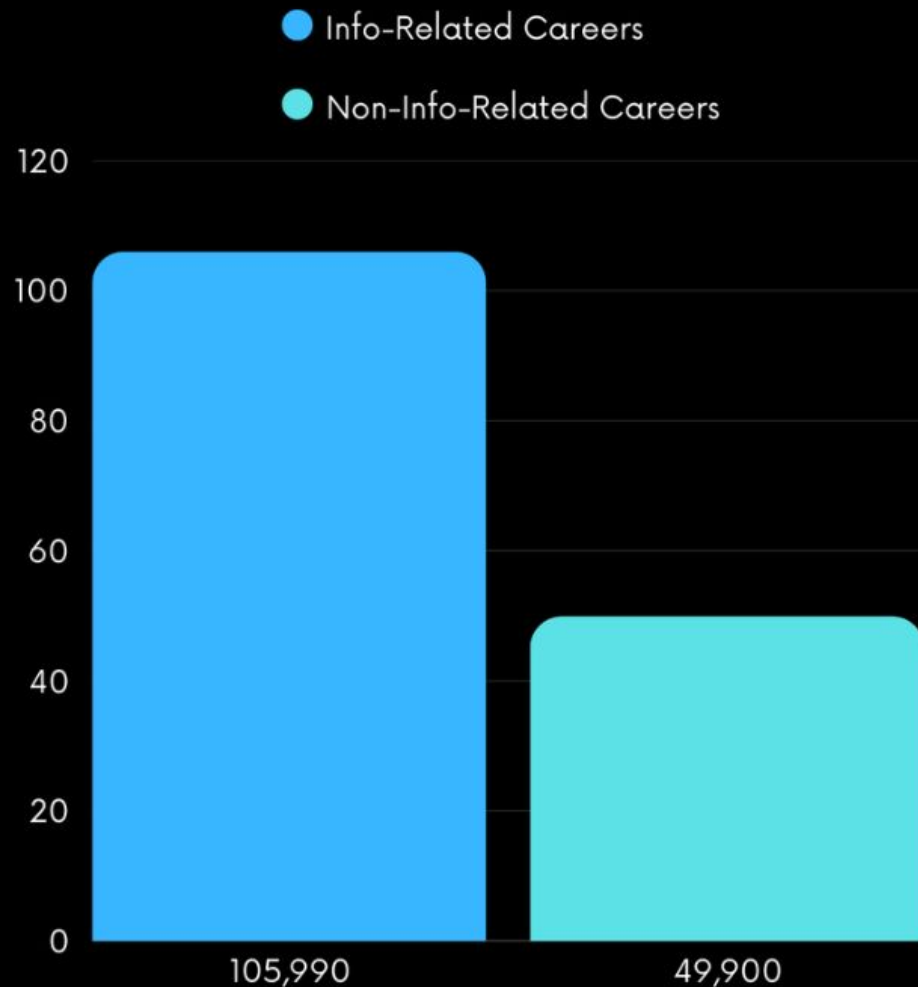


## Target Job Titles:

- Cybersecurity Analyst
- Information Security Officer
- SOC Analyst
- Governance, Risk, & Compliance (GRC) Specialist

In 2024 alone, people working in  
Info and IT-related careers  
earned an average median  
wage of

**OVER DOUBLE**  
that of non-Info careers.



# TOP TEN MARYLAND INFO CAREERS BASED ON **TOTAL JOB OPENINGS** (2021 - 2023)

Business Operations Specialists	182,933
Information and Record Clerks	114,063
General and Operations Managers	88,519
Operations Specialties Managers	50,533
Financial Specialists	47,633
Financial Clerks	45,786
Business Operations Specialists, All Other	43,154
Sales Representatives, Services	40,124
Software Developers	32,316

# TOP TEN MARYLAND INFO CAREERS BASED ON **GROWTH POTENTIAL** (2021 - 2023)

Data Scientists	39.32%
Information Security Analysts	38.81%
Software Developers	31.22%
Statisticians	30.99%
Operations Research Analysts	26.67%
Software Quality Assurance Analysts and Testers	25.32%
Computer and Information Research Scientists	21.52%
Web Developers	21.11%
Web and Digital Interface Designers	19.18%



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