



This material is based upon work supported by the National Science Foundation under Grant #2054724..

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CYBERSECURITY PROGRAM CODING

Appendices

Appendix A

Classification and Framework Code Structures

Table 1. Classification and Framework Code Structure/Classification/Framework	Name	Organization	Object of Classification	Scope	Structure	Family Indicator	Number of Families
CIP	Classification of Instructional Programs	National Center for Education Statistics	Instructional Programs	All US postsecondary programs	XX.XXXX	First 2 digits	50
SOC	Standard Occupational Classification	Bureau of Labor Statistics	Occupations	US Workforce	XX-XXXX.XX	First 2 digits	23
NICE	National Initiative on Cybersecurity Education	National Institute of Standards and Technology	Work Roles	US Cybersecurity Workforce	AA-AAA-XXX	First 2 letters	7
DCWF	Defense Cybersecurity Workforce Framework	Department of Defense	Work Roles	DOD Cybersecurity Workforce	XXX	N/A	7

Appendix "B"

CAE-Designated Institutions Survey

Section I: Contact Information

- 1) What is the name of the institution for which you are filling this out?
- 2) Please provide a primary point of contact for the cybersecurity program at your institution. Be sure to include the name, email, phone number, and department name.

Primary Contact Name: _____
Email: _____
Department Name: _____
Phone Number: _____

Section II: Institution Information

- 3) How would you categorize your academic institution? Please select one option. [For more information on how to classify your institution, click here](#)

- Doctorate-Granting University
- Master's College/University
- Baccalaureate College
- Associate College
- Special Focus Institution
- Tribal College
- Other - Write In: _____

- 4) What is the CAE designation assigned to your institution? Please select all that apply.

- CAE-CD
- CAE-O
- CAE-R
- Validated but not designated
- None of the above

- 5) How many **cybersecurity** programs does your institution have?*: _____

Section III: Program Details

Note: this section was completed for each cybersecurity program based on the number entered in Q5

6) Please provide the following information for your **cybersecurity** program*:

- Program Name*: _____
- What is the six-digit CIP (Classification of Instructional Program) code of this program?
[For more information on CIP codes, click here](#)*: _____
- What type of degree is awarded at the completion of your program?* Please select all that apply.
 - Certificate of Completion
 - AS - Associate of Science
 - AAS - Associate of Applied Science
 - BS - Bachelor of Science
 - MS - Master of Science
 - PhD - Doctorate
 - Other - Write In: _____
- Each branch of the military uses its own taxonomy for what is generally known as a Military Occupational Specialty (MOS) code. Does your institution grant credit for prior learning to military veterans based on their military occupational specialty (MOS) in this **cybersecurity** program? Please select one. [For more details on MOS, click here](#) *
 - Yes
 - No

If selected "Yes" to Q6-d above

7) What MOS credit(s) does this program provide? Please describe.

Section IV: Program Transfer Pathways

NCyTE supports efforts by its member community colleges to develop *transfer pathways*. When two-year colleges make such agreements with four-year institutions, students graduating with an associate degree for transfer are able to transition smoothly into a related university program leading to a bachelor's degree. [For more details on transfers and accreditation, click here.](#)

8) Does your institution have a two-year college to four-year institution agreement for **cybersecurity** program transfer credit in your state? Please select one.

- Yes
- No

If selected "Yes" to Q8 above

9) If yes, how many two-year college to four-year institution agreements does your institution have for **cybersecurity** program transfer credit? _____

10) Does your institution currently have AP articulation agreements for **cybersecurity** program transfer credit with high schools in your state?

- Yes
- No

If selected "Yes" to Q10 above

11) If yes, how many high schools do you have AP articulation agreements with for **cybersecurity** program transfer credit? _____

Appendix "C"

Non-CAE-Designated Institutions Selection Methodology

Obtaining Cyber Security Related CIP Codes

Researchers first identified CIP codes used by CAE-designated institutions from responses to the survey shown in Appendix A. A CIP code frequency distribution was then created to evaluate how often a CIP code was used by programs with clear cybersecurity content validated by the CAE designation. This frequency distribution was used to inform data collection for non-CAE-designated programs, assuming that non-CAE cybersecurity programs use CIP codes similar to those of CAE-designated programs.

This list was augmented by a careful review of the entire CIP code classification to identify other codes that were not reported in survey responses but could still be relevant to cybersecurity programs. For example, instructional programs preparing students for a career in public service and the military can be found in a handful of specialty institutions and are naturally scarce. As a result, survey responses from these programs were scant and did not represent the full variety of CIP codes used.

The research team then queried the IPEDS database using the abovementioned CIP codes. The database provided a wide range of data points for each 6-digit CIP code, including the institution name, the 2-digit CIP code family name, and each credential offered. Using the list of CIP codes above, the research team identified 15,448 unique, credentialed programs offered under these identified CIP codes in the United States.¹

However, the IPEDS database does not provide specific program-level information. Thus, there is no way to determine whether a specific credential offered under an identified CIP code was a cyber security program using IPEDS data alone. To make this determination, the research team needed to obtain program-level data.

Obtaining Cyber Security Program-Level Data

The research team identified six state databases providing individual program and credential-level data organized by CIP codes: Georgia, Illinois, Michigan, Texas, and Virginia, while California's databases provided data only for community college programs. Each database was queried using the CIP codes identified above.

The results were then exported, compiled, and sorted by institution, program name, and credential. From these six states, 4,208 individual programs, from one-year certifications to doctoral research degrees, were identified under the queried CIP codes.

After compiling the program-level data from state databases, the research team then supplemented these data with CIP code data from other states, where some individual institutions sometimes make CIP code-level program information available. This approach produced

¹ IPEDs CIP codes listed as double degree awards and programs with no credential-level data were excluded.

program-level data for an additional 422 programs, resulting in 4,630 programs organized by institution, CIP code, and individual credentials.

The compiled program-level data from the states was then merged into the original IPEDS CIP code data and sorted by institution, CIP code, and individual program name. Each program listed, whether cyber security or otherwise, was reviewed to ensure that the institution, CIP code, and credential listed on the IPEDs database matched those on the state database.

This allowed the research team to verify which programs listed on the IPEDs database were cyber security programs and which were not. This approach also allowed the team to capture cyber security credentials not listed on the IPEDs data.

Out of the original 15,448 unique programs listed under the identified CIP codes on the IPEDs database, the research team identified 399 cyber security programs, 217 of which were listed on the IPED database and 181 of which were not.

Researchers then leveraged the same classification methodology used for CAE-designated programs to sort non-designated programs according to their content and identify discrepancies between CIP code use and program content. It is important to note that while program titles and learning objectives were available for CAE-designated programs, researchers could only access program titles for non-CAE-designated programs and used these as a proxy for program content.

Appendix'D

Common'CAE-Designated'Program'CIP'Codes¹³

CIP Code	Title and Description
11.1003	Computer and Information Systems Security/Auditing/Information Assurance
	A program that prepares individuals to assess the security needs of computer and network systems, recommend safeguard solutions, and manage the implementation, auditing, and maintenance of security devices, systems, and procedures. Includes instruction in computer architecture, programming, and systems analysis; networking; telecommunications; cryptography; security system auditing and design; applicable law and regulations; risk assessment and policy analysis; contingency planning; user access issues; investigation techniques; and troubleshooting.
11.0701	Computer Science
	A program that focuses on computer theory, computing problems and solutions, and the design of computer systems and user interfaces from a scientific perspective. Includes instruction in the principles of computational science, computer development and programming, and applications to a variety of end-use situations.
43.0404	Cybersecurity Defense Strategy/Policy
	A program that focuses on the study of strategy, policy, and standards regarding the security of and operations in cyberspace. Includes instruction in incident response, information assurance, recovery policies, vulnerability reduction, deterrence, threat reduction, and resiliency.
11.0101	Computer and Information Sciences, General
	A general program that focuses on computing, computer science, and information science and systems. Such programs are undifferentiated as to title and content and are not to be confused with specific programs in computer science, information science, or related support services.
43.0403	Cyber/Computer Forensics and Counterterrorism
	A program focusing on the principles and techniques used to identify, search, seize and analyze digital media and to conduct cyber investigations against criminal and terrorist activity. Includes instruction in computer boot processes and drives, jumper setting, file access and reconstruction, hacking, network systems, cryptography, programming, investigative techniques, forensic imagery, web-based investigation methods, cyberterrorism, and applicable laws and administrative procedures.
29.0207	Cyber/Electronic Operations and Warfare

CIP Code	Title and Description
	<p>A program that focuses on the technological and operation aspects of information warfare, including cyber attack and cyber defense. Includes instruction in computer and network security, cryptography, computer forensics, systems security engineering, software applications, threat and vulnerability assessment, wireless networks and satellite communications, tactical and strategic planning, legal and ethical issues, and cyber warfare systems development and acquisition.</p>
11.0103	Information Technology
	<p>A program that focuses on the design of technological information systems, including computing systems, as solutions to business and research data and communications support needs. Includes instruction in the principles of computer hardware and software components, algorithms, databases, telecommunications, user tactics, application testing, and human interface design.</p>
11.0901	Computer Systems Networking and Telecommunications
	<p>A program that focuses on the design, implementation, and management of linked systems of computers, peripherals, and associated software to maximize efficiency and productivity, and that prepares individuals to function as network specialists and managers at various levels. Includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting.</p>

Appendix 'E'

NICE Work Roles

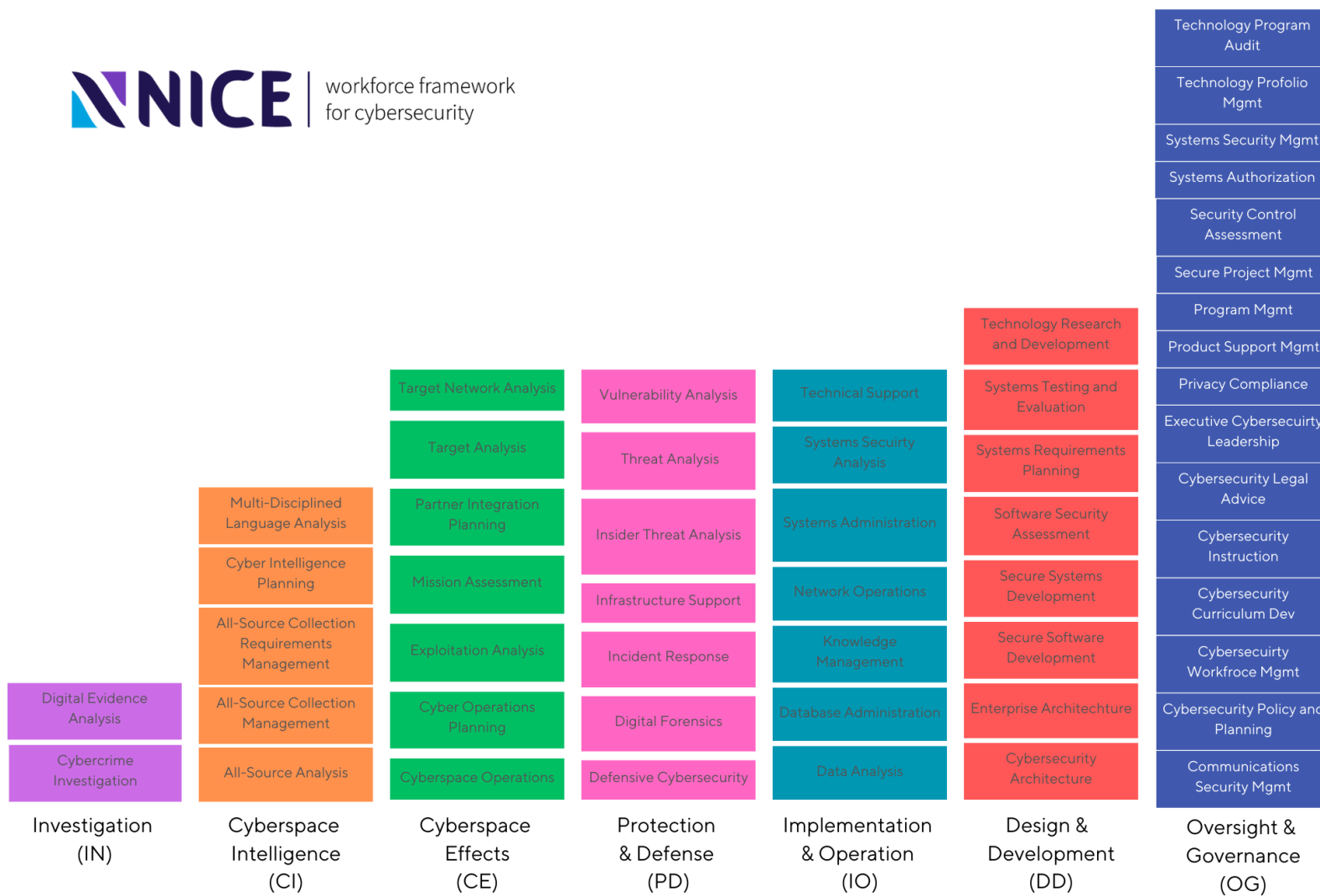


Figure 1. NICE Work Roles

Appendix F

DCWF Work Roles

Table 2. DCWF Work Roles

IT (Cyberspace)						
Personnel who design, build, configure, operate, and maintain IT, networks, and capabilities. This includes actions to prioritize implement, evaluate, and dispose of IT as well as information resource management; and the management, storage, transmission, and display of data and information.						
(421) Database Administrator	(431) Knowledge Manager	(661) Research & Development Specialist	(451) Systems Administrator	(641) Systems Requirements Planner		
(651) Enterprise Architect	(441) Network Operations Specialist		(671) System Testing & Evaluation Specialist (632) Systems Developer	(411) Technical Support Specialist		
Cybersecurity						
Personnel who secure, defend, and preserve data, networks, net-centric capabilities, and other designated systems by ensuring appropriate security controls and measures are in place, and taking internal defense actions. This includes access to system controls, monitoring, administration, and integration of cybersecurity into all aspects of engineering and acquisition of cyberspace capabilities.						
(611) Authorizing Official Designating Representative	(212) Cyber Defense Forensics Analyst	(521) Cyber Defense Infrastructure Support Specialist	(631) Information Systems Security Developer	(622) Secure Software Assessor	(612) Security Control Assessor	(541) Vulnerability Assessment Analyst
(732) COMSEC Manager	(511) Cyber Defense Analyst	(531) Cyber Defense Incident Responder	(722) Information Systems Security Manager	(652) Security Architect	(462) Control Systems Security Specialist	
Cyberspace Effects						
Personnel who plan, support, and execute cyberspace capabilities where the primary purpose is to externally defend or conduct force projection in or through cyberspace.						
(121) Exploitation Analyst	(131) Joint Targeting Analyst	(442) Network Technician	(443) Network Analyst			
(122) Digital Network Exploitation Analyst	(132) Target Digital Network Analyst	(133) Target Analyst Reporter	(322) Cyberspace Operator (463) Host Analyst			

Intelligence (Cyberspace)

Personnel who collect, process, analyze, and disseminate information from all sources of intelligence on foreign actors' cyberspace programs, intentions, capabilities, research and development, and operational activities.

(111) All-Source Analyst	(312) All-Source Collection Requirements Manager	(151) Multi-Disciplined Language Analyst	
(311) All-Source Collection Manager	(331) Cyber Intelligence Planner		

Cyberspace Enablers

Personnel who perform work roles to support or facilitate the functions of cyber IT, cybersecurity, cyberspace effects, or intelligence workforce (cyberspace) work roles. This includes actions to support acquisition, training and leadership activities.

<u>Acquisition</u>	<u>Acquisition</u>	<u>Leadership</u>	<u>Leadership</u>	<u>Legal & Law Enf.</u>	<u>Legal & Law Enf.</u>	<u>Training & Education</u>
(804) IT Investment Portfolio Manager	(803) Product Support Manager	(752) Cyber Policy and Strategy Planner	(901) Executive Cyber Leader	(731) Legal Advisor	(211) Forensic Analyst	(711) Curriculum Developer
(805) IT Program Auditor	(801) Program Manager	(751) Cyber Workforce Developer and Manager	(732) Privacy Compliance Manager	(221) Cyber Crime Investigator		(712) Cyber Instructor
(802) IT Project Manager						

Software Engineering

(627) DevSecOps Specialist	(806) Product manager	(628) Software Cloud Architect	(673) Software Test & Evaluation Specialist	
(625) Product Designer User Interface (UI)	(626) Service Designer User Experience (UX)	(621) Software Developer	(461) Systems Security Analyst	

Data/AI

(753) AI Adoption Specialist	(672) AI Test & Evaluation Specialist	(422) Data Analyst	(624) Data Operations Specialist	(424) Data Steward	
(902) AI Innovation Leader	(623) AL/ML Specialist	(653) Data Architect	(423) Data Scientist		
		(903) Data Officer			

(733) AI Risk & Ethics Specialist					
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Appendix G

NICE Framework Roles with an Exact Match in SOC Classification

NICE Work Category	NICE Work Role ID	NICE Work Role	2018 SOC Code	2018 SOC Title
Investigation	IN-WRL-001	Cybercrime Investigation	15-1299.06	Digital Forensics Analysts
Protection & Defense	PD-WRL-004	Infrastructure Support	15-1231	Computer Network Support Specialists
	PD-WRL-007	Vulnerability Analysis	15-1299.04	Penetration Testers
Implementation & Operations	IO-WRL-001	Data Analysis	15-2051	Data Scientists
	IO-WRL-002	Database Administration	15-1242	Database Administrators
	IO-WRL-004	Network Operations	15-1231	Computer Network Support Specialists
	IO-WRL-005	Systems Administration	15-1244	Network and Computer Systems Administrators
Design & Development	DD-WRL-003	Secure Software Development	15-1252	Software Developers
	DD-WRL-005	Software Security Assessment	15-1253	Software Quality Assurance Analysts and Testers
	DD-WRL-006	Systems Requirements Planning	11-3021	Computer and Information Systems Managers
	DD-WRL-008	Technology Research and Development	15-1221	Computer and Information Research Scientists
Oversight & Governance	OG-WRL-011	Secure Project Management	15-1299.09	Information Technology Project Managers
	OG-WRL-013	Systems Authorization	11-3021	Computer and Information Systems Managers

Appendix H

DCWF Roles with an Exact Match in SOC Classification

DCWF Category	DCWF Code	DCWF Work Role	2018 SOC Code	2018 SOC Title
IT Cyberspace	421	Database Administrator	15-1242	Database Administrators
Cybersecurity	521	Cyber Defense Infrastructure Support Specialist	15-1231	Computer Network Support Specialists
	541	Vulnerability Assessment Analyst	15-1299.04	Penetration Testers
	611	Authorizing Official/Designating Representative	11-3021	Computer and Information Systems Managers
	622	Secure Software Assessor	15-1253	Software Quality Assurance Analysts and Testers
Cyberspace Effects	442	Network Technician	15-1231	Computer Network Support Specialists
Cyberspace Enablers	211	Forensics Analyst	15-1299.06	Digital Forensics Analysts
	802	IT Project Manager	15-1299.09	Information Technology Project Managers
Data/AI	422	Data Analyst	15-2051	Data Scientists
	423	Data Scientist	15-2051	Data Scientists
	424	Data Steward	11-3021	Computer and Information Systems Managers
	441	Network Operations Specialist	15-1231	Computer Network Support Specialists
	451	System Administrator	15-1244	Network and Computer Systems Administrators
	621	Software Developer	15-1252	Software Developers
	624	Data Operations Specialist	15-1243	Database Architects
	641	Systems Requirements Planner	11-3021	Computer and Information Systems Managers
	653	Data Architect	15-1243	Database Architects
	661	Research & Development Specialist	15-1221	Computer and Information Research Scientists
	673	Software Test & Evaluation Specialist	15-1253	Software Quality Assurance Analysts and Testers
903	Data Officer	15-1243.00	Database Architects	



Appendix I

NICE Framework Roles with Multiple Matches

NICE Category Title	NICE Work Role ID	NICE Work Role	2018 SOC Code	2018 SOC Title
Investigation	IN-WRL-002	Digital Evidence Analysis	11-3021	Computer and Information Systems Managers
			15-1212	Information Security Analysts
			15-1299	Computer Occupations, All Other
			15-1299.06	Digital Forensics Analysts
Cyberspace Intelligence	CI-WRL-001	All-Source Analysis	15-1212	Information Security Analysts
			19-2099.01	Remote Sensing Scientists and Technologists
			33-3021.06	Intelligence Analysts
	CI-WRL-002	All-Source Collection Management	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			55-1015	Command and Control Center Officers
	CI-WRL-003	All-Source Collection Requirements Management	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			55-1015	Command and Control Center Officers
	CI-WRL-004	Cyber Intelligence Planning	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
			55-1015	Command and Control Center Officers
	CI-WRL-005	Multi-Disciplined Language Analysis	15-1221	Computer and Information Research Scientists
			27-3091	Interpreters and Translators
33-3021.06			Intelligence Analysts	
Cyberspace Effects	CE-WRL-005	Partner Integration Planning	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
	CE-WRL-006	Target Analysis	15-1212	Information Security Analysts

NICE Category Title	NICE Work Role ID	NICE Work Role	2018 SOC Code	2018 SOC Title
			33-3021.06	Intelligence Analysts
			55-1015	Command and Control Center Officers
			55-3015	Command and Control Center Specialists
	CE-WRL-007	Target Network Analysis	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
			55-1015	Command and Control Center Officers
			55-3015	Command and Control Center Specialists
Protection And Defense	PD-WRL-001	Defensive Cybersecurity	15-1212	Information Security Analysts
			15-1299.06	Digital Forensics Analysts
	PD-WRL-002	Digital Forensics	15-1212	Information Security Analysts
			15-1299.06	Digital Forensics Analysts
	PD-WRL-003	Incident Response	15-1212	Information Security Analysts
			15-1299	Computer Occupations, All Other
			15-1299.06	Digital Forensics Analysts
	PD-WRL-005	Insider Threat Analysis	15-1299	Computer Occupations, All Other
			33-3021.06	Intelligence Analysts
	PD-WRL-006	Threat Analysis	15-1299	Computer Occupations, All Other
		33-3021.06	Intelligence Analysts	
Implementation And Operation	IO-WRL-003	Knowledge Management	11-3021	Computer and Information Systems Managers
			15-1299	Computer Occupations, All Other
	IO-WRL-006	Systems Security Analysis	15-1211	Computer Systems Analysts
			15-1212	Information Security Analysts
	IO-WRL-007	Technical Support	15-1231	Computer Network Support Specialists
		15-1232	Computer User Support Specialists	
Design And Development	DD-WRL-001	Cybersecurity Architecture	15-1241	Computer Network Architects
			15-1299	Computer Occupations, All Other
	DD-WRL-002	Enterprise Architecture	15-1241	Computer Network Architects

NICE Category Title	NICE Work Role ID	NICE Work Role	2018 SOC Code	2018 SOC Title
			15-1243	Database Architects
	DD-WRL-004	Secure Systems Development	11-3021	Computer and Information Systems Managers
			15-1252	Software Developers
	DD-WRL-007	Systems Testing and Evaluation	15-1211	Computer Systems Analysts
			15-1212	Information Security Analysts
			15-1253	Software Quality Assurance Analysts and Testers
			15-1299	Computer Occupations, All Other
Oversight And Governance	OG-WRL-001	Communications Security (COMSEC) Management	11-3013.00	Facilities Managers
			11-3021	Computer and Information Systems Managers
			15-1299	Computer Occupations, All Other
	OG-WRL-004	Cybersecurity Curriculum Development	15-1299	Computer Occupations, All Other
			25-1021	Computer Science Teachers, Postsecondary
	OG-WRL-005	Cybersecurity Instruction	15-1299	Computer Occupations, All Other
			25-1021	Computer Science Teachers, Postsecondary
	OG-WRL-006	Cybersecurity Legal Advice	15-1299	Computer Occupations, All Other
			23-1011	Lawyers
	OG-WRL-002	Cybersecurity Policy and Planning	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
			15-1299.09	Information Technology Project Managers
	OG-WRL-003	Cybersecurity Workforce Management	11-3121	Human Resources Managers
			11-3131	Training and Development Managers
			11-9199	Managers, All Other
			13-1071	Human Resources Specialists
			15-1299.09	Information Technology Project Managers
	OG-WRL-007	Executive Cybersecurity Leadership	11-1011	Chief Executives
			11-9199	Managers, All Other



NICE Category Title	NICE Work Role ID	NICE Work Role	2018 SOC Code	2018 SOC Title
	OG-WRL-008	Privacy Compliance	11-9199.01	Regulatory Affairs Managers
			11-9199.02	Compliance Managers
	OG-WRL-009	Product Support Management	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
			15-1299.09	Information Technology Project Managers
	OG-WRL-010	Program Management	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
	OG-WRL-012	Security Control Assessment	15-1253	Software Quality Assurance Analysts and Testers
			15-1299	Computer Occupations, All Other
	OG-WRL-014	Systems Security Management	11-3021	Computer and Information Systems Managers
			15-1299	Computer Occupations, All Other
	OG-WRL-015	Technology Portfolio Management	11-3021	Computer and Information Systems Managers
			15-1299.09	Information Technology Project Managers
	OG-WRL-016	Technology Program Auditing	15-1211	Computer Systems Analysts
			15-1212	Information Security Analysts
			15-1299	Computer Occupations, All Other



Appendix"J

DCWF Framework Roles with Multiple Matches

DCWF Category	DCWF Code	DCWF Work Role	2018 SOC Code	2018 SOC Title	
IT (Cyberspace)	411	Technical Support Specialist	15-1231	Computer Network Support Specialists	
			15-1232	Computer User Support Specialists	
	431	Knowledge Manager	11-3021	Computer and Information Systems Managers	
			15-1299	Computer Occupations, All Other	
	632	Systems Developer	11-3021	Computer and Information Systems Managers	
			15-1252	Software Developers	
	651	Enterprise Architect	15-1241	Computer Network Architects	
			15-1243	Database Architects	
	671	System Testing & Evaluation Specialist	15-1211	Computer Systems Analysts	
			15-1212	Information Security Analysts	
			15-1253	Software Quality Assurance Analysts and Testers	
			15-1299	Computer Occupations, All Other	
	Cybersecurity	212	Cyber Defense Forensics Analyst	15-1212	Information Security Analysts
				15-1299.06	Digital Forensics Analysts
462		Control Systems Security Specialist	15-1211	Computer Systems Analysts	
			15-1212	Information Security Analysts	
511		Cyber Defense Analyst	15-1212	Information Security Analysts	
			15-1299.06	Digital Forensics Analysts	
531		Cyber Defense Incident Responder	15-1212	Information Security Analysts	
			15-1299	Computer Occupations, All Other	
			15-1299.06	Digital Forensics Analysts	
612		Security Control Assessor	15-1253	Software Quality Assurance Analysts and Testers	
	15-1299		Computer Occupations, All Other		
631		11-3021	Computer and Information Systems Managers		

	Information Systems Security Developer	15-1212	Information Security Analysts	
		15-1241	Computer Network Architects	
		15-1299	Computer Occupations, All Other	
652	Security Architect	15-1241	Computer Network Architects	
		15-1299	Computer Occupations, All Other	
722	Information Systems Security Manager	11-3021	Computer and Information Systems Managers	
		15-1299	Computer Occupations, All Other	
723	ComSec Manager	11-3013.00	Facilities Managers	
		11-3021	Computer and Information Systems Managers	
		15-1299	Computer Occupations, All Other	
Cyberspace Effects	121	Exploitation Analyst	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
	122	Digital Network Exploitation Analyst	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
	131	Joint Targeting Analyst	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
			55-1015	Command and Control Center Officers
			55-3015	Command and Control Center Specialists
	132	Target Digital Network Analyst	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
			55-1015	Command and Control Center Officers
			55-3015	Command and Control Center Specialists
	133	Target Analyst Reporter	15-1212	Information Security Analysts
			33-3021.06	Intelligence Analysts
			55-1015	Command and Control Center Officers
			55-3015	Command and Control Center Specialists
	322	Cyberspace Operator	15-1212	Information Security Analysts
			15-1299.06	Digital Forensics Analysts

			55-3015	Command and Control Center Specialists
443	Network Analyst		15-1212	Information Security Analysts
			15-1231	Computer Network Support Specialists
463	Host Analyst		15-1211	Computer Systems Analysts
			15-1212	Information Security Analysts
Cyberspace Enablers	221	Cyber Crime Investigator	11-3021	Computer and Information Systems Managers
			15-1212	Information Security Analysts
			15-1299	Computer Occupations, All Other
			15-1299.06	Digital Forensics Analysts
711	Cyber Instructional Curriculum Developer		15-1299	Computer Occupations, All Other
			25-1021	Computer Science Teachers, Postsecondary
712	Cyber Instructor		15-1299	Computer Occupations, All Other
			25-1021	Computer Science Teachers, Postsecondary
731	Cyber Legal Advisor		15-1299	Computer Occupations, All Other
			23-1011	Lawyers
732	Privacy Compliance Manager		11-9199.01	Regulatory Affairs Managers
			11-9199.02	Compliance Managers
751	Cyber Workforce Developer And Manager		11-3121	Human Resources Managers
			11-3131	Training and Development Managers
			11-9199	Managers, All Other
			13-1071	Human Resources Specialists
			15-1299.09	Information Technology Project Managers
752	Cyber Policy And Strategy Planner		11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
			15-1299.09	Information Technology Project Managers
801	Program Manager		11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other

		15-1299	Computer Occupations, All Other	
803	Product Support Manager	11-3021	Computer and Information Systems Managers	
		11-9199	Managers, All Other	
		15-1299	Computer Occupations, All Other	
		15-1299.09	Information Technology Project Managers	
804	IT Investment/Portfolio Manager	11-3021	Computer and Information Systems Managers	
		15-1299.09	Information Technology Project Managers	
805	IT Program Auditor	15-1211	Computer Systems Analysts	
		15-1212	Information Security Analysts	
		15-1299	Computer Occupations, All Other	
901	Executive Cyber Leader	11-1011	Chief Executives	
		11-9199	Managers, All Other	
Intelligence (Cyberspace)	111	All-Source Analyst	15-1212	Information Security Analysts
			19-2099.01	Remote Sensing Scientists and Technologists
			33-3021.06	Intelligence Analysts
	151	Multi-Disciplined Language Analyst	15-1221	Computer and Information Research Scientists
			27-3091	Interpreters and Translators
			33-3021.06	Intelligence Analysts
	311	All-Source Collection Manager	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			55-1015	Command and Control Center Officers
	312	All-Source Collection Requirements Manager	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			55-1015	Command and Control Center Officers
	331	Cyber Intelligence Planner	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other
		55-1015	Command and Control Center Officers	

Software Engineering	461	Systems Security Analyst	15-1211	Computer Systems Analysts
			15-1212	Information Security Analysts
	625	Product Designer User Interface (UI)	15-1254	Web Developers
			15-1255	Web and Digital Interface Designers
			27-1014	Special Effects Artists and Animators
			27-1024	Graphic Designers
	626	Service Designer User Experience (UX)	15-1254	Web Developers
			15-1255	Web and Digital Interface Designers
			27-1014	Special Effects Artists and Animators
			27-1024	Graphic Designers
	627	DevSecOps Specialist	15-1252	Software Developers
			15-1299	Computer Occupations, All Other
	628	Software/Cloud Architect	15-1241	Computer Network Architects
			15-1252	Software Developers
806	Product Manager	11-3021	Computer and Information Systems Managers	
		11-9199	Managers, All Other	
		15-1299	Computer Occupations, All Other	
		15-1299.09	Information Technology Project Managers	
Data/AI	623	AI/ML Specialist	15-1221	Computer and Information Research Scientists
			15-2051	Data Scientists
	672	AI Test & Evaluation Specialist	11-9121	Natural Sciences Managers
			15-1221	Computer and Information Research Scientists
			15-2051	Data Scientists
			11-9199	Managers, All Other
	733	AI Risk & Ethics Specialist	23-1011	Lawyers
			11-3021	Computer and Information Systems Managers
	753	AI Adoption Specialist	13-1199	Business Operations Specialists, All Other
			15-1299	Computer Occupations, All Other



			15-1299.09	Information Technology Project Managers
	902	AI Innovation Leader	11-3021	Computer and Information Systems Managers
			13-1199	Business Operations Specialists, All Other
			15-1299	Computer Occupations, All Other
			15-1299.09	Information Technology Project Managers
Retired	333	Partner Integration Planner	11-3021	Computer and Information Systems Managers
			11-9199	Managers, All Other
			15-1299	Computer Occupations, All Other