

Career Paper

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In the evolving field of cybersecurity, the role of government agencies is critical in safeguarding national security, infrastructure, and sensitive information. Government cybersecurity agencies are responsible for the digital defense against sophisticated threats. Government cybersecurity professionals are tasked with more than just protecting data; They are the overseers of national security. This paper will analyze the relationship between Cybersecurity careers in government agencies and social science research. By discussing the specific examples in the perspective of social science, we are able to anticipate and respond to cyber threats efficiently.

Social science research provides critical insights into the psychology of cyber threats. Cybersecurity professionals in government agencies are increasingly turning to social science research to enhance their understanding of the human factors influencing cybersecurity. A thorough understanding of social science and cybersecurity interdependence is predominant for professionals safeguarding national interests. By bringing together these insights from psychology, political science, and sociology; government experts are able to operate the complexities of cyberspace with a refined approach that acknowledges the relationship between human behavior and technology. Political science influences the formulation of government policies. This process involves societal needs and responding to political dynamics. Government agencies are dependent on political decisions that shape policies. These policies must have collaboration between agencies and follow the same path as government objectives. The need for powerful cybersecurity measures with the protection of citizens' privacy and civil liberties is a complex challenge. Cybersecurity measures often involve the collection and analysis of large amounts of data. Transparency in government actions relating to cyber security is essential for gaining public trust. However, too much transparency could also create more challenges for

security. Government agencies should operate the tension between monitoring and protecting against potential threats and respecting citizens' rights. This perspective not only strengthens defensive mechanisms but also makes them very adaptive and empowers protective strategies in the evolving field of cybersecurity. Heidi L. Huhn stated in an article that "The national security implications of protecting the United States' critical infrastructure are a challenge because of the difficulty to hire and retain a talented selection of cybersecurity skilled employees to protect critical infrastructure." (Huhn, 2020, p.3) One major challenge in this field is the difficulty in recruiting and retaining a skilled workforce. The scarcity of talented cybersecurity professionals poses a major complication to the effective protection of infrastructure assets. Adriane C. Estes stated in an article that "The workforce development lifecycle begins with identifying the needs of the workforce, and its remainder is devoted to training and employee retention. Regardless of their existing skill set." (Estes, 2018, p.6)

In an article published by Kimberly Amadeo, she stated that "Laissez-faire economics is a theory that restricts government intervention in the economy. It holds that the economy is strongest when all the government does is protect individual rights." (Amadeo, 2021)

Government agencies would have a limited role. This theory emphasizes allowing the market to determine its own price and minimizing the need for regulatory government oversight. In a Laissez-faire system, government agencies are responsible for market regulation and oversight would be more of a hands-off approach. The role that the government plays will be limited to ensuring contracts are enforced and preventing fraud; other than controlling market supply prices. Government agencies would focus more on ensuring protection and enforcement to maintain the rule of law and disputes, rather than engaging in economic planning. Bug bounty programs and government agencies can be related in the context of cybersecurity and

information assurance. Government agencies handle sensitive data and infrastructure that are attractive to hackers. Bug bounty can help identify and fix vulnerabilities before hackers can exploit them. Bug bounty programs also allow government agencies to recruit the expertise of security researchers who may have diverse skills and perspectives. This type of recruitment could help identify vulnerabilities that current researchers may have overlooked. Government agencies often have a division of labor where employees have specific roles and responsibilities. Structural functionalisms suggest that this contributes to the efficiency of an organization. Careers within government agencies may involve individuals specializing in areas such as policy analysis, program management, and legal affairs. Careers within government agencies contribute to the maintenance of societal stability and the adaptation to changing circumstances with the principles of structural functionalism. Conflict theory highlights the unequal distribution of power in society. In government agencies, power dynamics are in hierarchical structures. Careers within government agencies may involve individuals in positions of authority that hold influence over policy decisions and resource allocation. Stereotypes and biases about the capabilities and interests of certain groups can influence hiring decisions. For example, women may face stereotypes suggesting they are less suited for technical roles. Marginalized groups may face hardship in accessing quality education and training programs that are critical for entering in the field of cybersecurity. Lack of resources and limited exposure to technology can interrupt individuals from pursuing cybersecurity careers. Networking is also critical for career advancement in this field, but marginalized groups may face challenges in building professional networks due to exclusionary practices and lack of representation in leadership roles.

The dynamic interactions between society and government agencies are complex and reflect the complicated of governance and societal needs. Public opinions play a critical role in

government policies. Government agencies need to have diverse perspectives within society. They must consider the interests of all groups and balance demands while formulating policies. The success of all government agencies relies on public trust. Maintaining this trust requires transparency, accountability, and quick responses to public concerns. Issues among government agencies occur when they fail to communicate or deal with issues of corruption. They are usually the ones that people call when they are in need or emergency situations. The response to unpredictable events requires the agency to adapt quickly and make a timely decision.

In conclusion, the field of cybersecurity within government agencies is not only for safeguarding national security but also deeply entwined with issues of public display. The Perspective of social science research adds a valuable view to understanding and addressing factors influencing cybersecurity. As this field continues to endlessly evolve, enforcing these insights from social science will strengthen defensive mechanisms and empower protective strategies.

## References

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