

1. Record Nr.	UNINA9910220106003321
Titolo	Sustaining U.S. nuclear submarine design capabilities // John F. Schank ... [et al.]
Pubbl/distr/stampa	Santa Monica, CA, : RAND Corp., 2007
ISBN	1-281-18116-1 9786611181161 0-8330-4276-9
Edizione	[1st ed.]
Descrizione fisica	1 online resource (235 p.)
Altri autori (Persone)	SchankJohn F <1946-> (John Frederic)
Disciplina	359.9/3
Soggetti	Nuclear submarines - United States - Design and construction - 21st century Shipbuilding industry - Employees - United States - 21st century Navy-yards and naval stations - United States
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 199-201).
Nota di contenuto	Cover; Preface; Contents; Figures; Tables; Summary; Acknowledgments; Abbreviations; Chapter One - Introduction; Problem and Objectives; Analytical Approach; Organization of This Monograph; Chapter Two - The Submarine Design Process; Evolution of the Nuclear Submarine Force; Submarine Design Phases; Mix of Skills Required to Design a Nuclear Submarine; Chapter Three - Framing the Analysis; Methodology for Analyzing Workforce Management Strategies; Estimating the Future Demand for Submarine Design Resources; Alternative Demand Assumptions Managing the Submarine Design Workforce Requires a Long-Range View Modeling Workforce Management Strategies; Summary; Chapter Four - Effect of Different Options for Managing Design Resources; Analyzing the Base Case; Impact of Different Design Start Dates; Implications of a Longer Design Duration; Implications of Splitting the Workload Between EB and NGNN; Sensitivity to Workforce Input Variables; Qualitative Impacts of the "Do Nothing" Option; Options for Sustaining Submarine Design Resources2; Summary and Conclusions; Chapter Five - Critical Skills

How Many People in Each Skill Category Should Be Maintained? Factors to Consider When Deciding How Many of Each Skill Category to Sustain; Summary; Chapter Six - Suppliers; Introduction; Research Approach; Survey Results; Options to Address Vendor Risk; Observations; Chapter Seven - The Navy's Roles and Responsibilities in Submarine Design; Defining the Navy's Submarine-Related Roles; Program Authority Versus Technical Authority; Navy Design Resources; Summary; Chapter Eight - Effect of a Design Gap on the Navy's Technical Community; Effects of the Design Gap on NAVSEA Effects of the Design Gap on the Naval Warfare Centers Effects of a Stretched Design Program on Navy Technical Resources; Summary; Chapter Nine - Conclusions and Recommendations; Appendix A - Workforce Simulation Model; Appendix B - Survey Instrument for Electric Boat and Northrop Grumman Newport News; Appendix C - Survey Instrument Provided to Vendors; Appendix D - U.S. Navy's Technical Warrant Holders; Appendix E - Net Present Value Analysis; Bibliography

Sommario/riassunto

For the first time since the design of the first nuclear submarine, the U. S. Navy has no nuclear submarine design program under way, which raises the possibility that design capability could be lost. Such a loss could result in higher costs and delays when the next submarine design is undertaken, as well as risks to system performance and safety. The authors estimate and compare the costs and delays of letting design capability erode vs. those of alternative means of managing the workload and workforce over the gap in design demand and beyond. The authors recommend that the Navy consider stret
