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Building the S&E Workforce for 2040
Challenges Facing the Department of Defense

Today, the National Defense University's Center for Technology and National Security Policy (CTNSP) released a report on the DOD science and engineering (S&E) workforce and challenges facing the Department of Defense in the future.

Written by Dr. Timothy Coffey, a Distinguished Research Fellow at the National Defense University and a former Director of Research of the U. S. Naval Research Laboratory from 1982 to 2001, the report argues that a continuation of past and current trends will result in a DOD civilian S&E workforce that is unable to accomplish the mission for which it exists.

Historically, the Nation has maintained within the Federal Government, and in quasi-government organizations, a highly competent cadre of scientists and engineers who would act as trusted advisors, and were of sufficient numbers and stature to adjudicate among the often conflicting advice and proposals from the larger community on emerging science and technology. However, the future viability of the model is in doubt. Indications of this are manifest in the increasing number of new weapon systems that are experiencing serious technical difficulties, many of which should have been anticipated before the programs were approved. A scientific and technical accountability gap has emerged. It appears that the government is not maintaining adequate/appropriate technical competence and/or is not making proper use of the competence that it has maintained.

This report examines some of the trends that have led to this situation and states that these trends have led to the emergence of a "shadow workforce" in the private sector to compensate for the government workforce drawdown. The report projects that the shadow workforce will soon dominate the government workforce, which raises questions about whether or not the government is in charge of its own program.

If the DOD civilian S&E workforce continues to decline relative to the national workforce, a point will be reached where it becomes irrelevant. It will not be able to renew itself. It will not be able to maintain competence in newly developing fields of science and technology while at the same time maintaining competence in the traditional fields that will continue to be important to DOD. This could result in the government not being able to distinguish a good R&D proposal from a bad one or to competently oversee R&D work that has been funded.

The report can be found at:

http://www.ndu.edu/ctnsp/Def_Tech/DTP%2049%20BuildingtheS&EWorkforcefor2040.pdf

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