AMENDMENT TO H.R. 2225

OFFERED BY MR. FOSTER OF ILLINOIS

Page 58, strike line 12 and all that follows through page 59, line 20, and insert the following:

1   (d) ADVANCED COMPUTING.—

2   (1) COMPUTING NEEDS.—To gather informa-

3   tion about the computational needs of Foundation-

4   funded projects, the Director shall require grant pro-

5   posals submitted to the Foundation, as appropriate,

6   to include estimates of computational resource needs

7   for projects that require use of advanced computing.

8   The Director shall encourage and provide access to

9   tools that facilitate the inclusion of these measures,

10   including those identified in the 2016 Academies re-

11   port entitled ''Future Directions for NSF Advanced

12   Computing Infrastructure to Support U.S. Science

13   and Engineering in 2017–2020''.

14   (2) REPORTS.—The Director shall document

15   and publish every two years a summary of the

16   amount and types of advanced computing capabili-

17   ties that are needed to fully meet the Foundation's

18   project needs as identified under paragraph (1).

1 (3) ROADMAP.—To set priorities and guide
2 strategic decisions regarding investments in ad-
3 vanced computing capabilities, the Director shall de-
4 velop, publish, and regularly update a 5-year ad-
5 vanced computing roadmap that—

6 (A) describes the advanced computing re-
7 sources and capabilities that would fully meet
8 anticipated project needs, including through in-
9 vestments in the Mid-Scale Research Infra-
10 structure program and the Major Research
11 Equipment and Facilities Construction account;

12 (B) draws on community input, informa-
13 tion contained in research proposals, allocation
14 requests, insights from Foundation-funded
15 cyber-infrastructure operators, and Foundation-
16 wide information gathering regarding commu-
17 nity needs;

18 (C) considers computational needs of
19 planned major facilities;

20 (D) reflects anticipated technology trends;

21 (E) informs users and potential partners
22 about future facilities and services;

23 (F) addresses the needs of groups histori-
24 cally underrepresented in STEM and geo-

1   graphic regions with low availability and high
2   demand for advanced computing resources;

3   (G) considers how Foundation-supported
4   advanced computing capabilities can be lever-
5   aged for activities through the Directorate for
6   Science and Engineering Solutions; and

7   (H) provides an update to Congress about
8   the level of funding necessary to fully meet
9   computational resource needs for the research
10   community.

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