

1 MR. CASTEEN: Dr. Vaitukaitis.

2 DR. VAITUKAITIS: I didn't take any chances. I have
3 overheads as backup. Actually, Senator Johnston set up my
4 presentation quite nicely because my presentation is going to
5 focus on the have-not states and a congressional initiative or
6 earmark however you choose to label it.

7 The EPSCoR program at NIH is referred to as the
8 Institutional Development Award program. The program was
9 authorized by Congress in 1993. It is comparable to the NSF
10 EPSCoR program, which stands for Experimental Programs to
11 Stimulate Competitiveness in Research. I have asked them whether
12 they were going to change the "E" because it has been in place
13 for over 20 years. But they are still refining it, as we are
14 with our program.

15 There are seven participating federal agencies that
16 have comparable programs. And this effort was in response to
17 Congress' intent to enhance geographical distribution of federal
18 research funds.

19 This slide shows the budgets of the seven participating
20 agencies. The blue bar is for last year, and the purple bar for
21 the President's budget request for fiscal year '02. One can
22 readily see that NSF to the far left, and NIH to the far right,
23 have the largest contributions to this kind of program.

24 NSF has had a longer experience with it than NIH has.

25 Picking up on Senator Johnston's comment, Congress was
26 concerned because this is an example of the distribution of funds
27 from NIH awards, which the line represents the cumulative awards
28 to the 50 states and Puerto Rico.

29 The vertical red line is a line drawn at the 50 percent
30 point, show that five states, California, Massachusetts, New
31 York, Pennsylvania, Maryland, account for a 50 percent of all of
32 the awards in dollars from the National Institutes of Health.
33 And that's predominately based on their population. The more
34 densely populated the state is, usually the more universities
35 there are. So there is a relationship.

36 But these states, the IDeA states are those that are
37 indicated in red. I doubt you can read them, but just to show
38 where it is. Those states collectively only receive about 5 to 7

1 percent of the NIH funding annually. And the same holds for the
2 other federal agencies.

3 This shows the number of grant awards to institutions
4 within the IDeA eligible states through regular competition, so
5 that in the fiscal year 2000, they received \$869 million, and
6 that independent of these other programs.

7 How is eligibility determined? Well, by two criteria,
8 basically. The success rate for obtaining the NIH grant awards,
9 having a success rate of at least 20 percent, combined with
10 receiving on average \$14 million a year over five years. So if
11 you meet one or both of those criteria, you are included. And so
12 out of the 23 states listed, and Puerto Rico is also eligible,
13 based on those two criteria.

14 Why did these states receive so few dollars
15 proportionately? Well, basically it is like the lotto. Unless
16 you play, you don't win. Not to say that the peer review process
17 is a lotto game. The application rate for the 23 IDeA states and
18 Puerto Rico in 1998, if I understand it, for 2001, it would
19 essentially show the same thing; that those investigators from
20 the 23 IDeA states and Puerto Rico submitted only 2,367 grants
21 out of about a total of about 28,000 or 29,000. So that's about
22 8.5 percent of the pool. And for that year, they received about
23 5 to 6 percent of the whole NIH budget.

24 But look at their success rate. It is 24 percent with
25 a range of 0 to 47 percent. The zero is for one state that
26 submitted no grants to NIH in that particular year. But the 47
27 percent is higher than the highest state among the non-IdeA, or
28 the have states, at 38 percent.

29 There is tremendous overlap between the two. But the
30 major difference is that there just aren't applications submitted
31 from these states through NIH, and to NSF and the other agencies.

32 The problem basically is there are not enough trained
33 investigators in health-related research, and that's why they
34 don't submit applications to NIH.

35 In response to that recognition, and discussions with
36 representatives from those states, including presidents of
37 universities and investigators, they, to a person, pointed out
38 that they didn't want any earmarks. They wanted to get grants on

1 their own. They want to be trained in terms of how to get
2 grants, how to do research, and be competitive. But just doing
3 the research, itself, is only one part. But you need the tools,
4 you need the laboratories and the instrumentation, and the
5 coaching through established investigators. So those are really
6 the nuts and bolts of the IDeA program. Competitiveness is key.

7 And in initially discussing the problems of
8 universities in the have-not states, the high level
9 administrators recurrently pointed out, when one of my
10 investigators gets an RO-1 -- that's the right of passage to
11 another state, and another university -- where I can work with a
12 critical mass, they could not build a critical mass of
13 investigators. They kept losing the good young people and the
14 older established ones who would get peer-reviewed funding.

15 So they said, "What we need is a multiple disciplinary
16 center so that if we lose one person, the center still survives
17 and we can replace that cog in the wheel.

18 And basically that's the approach that we took after we
19 had enough money in the system.

20 And I say that because the budget through NIH for the
21 institutions developing an award program, was abysmal between
22 1993 when the program started through essentially the late
23 1990's. And only in the year 2000, were we able to start a
24 significant program to start addressing these problems.

25 In the beginning there were just a couple of awards per
26 year, not enough to make a difference. And we knew that, but we
27 had to do something.

28 But probably the most important thing that we attained
29 in the first couple of years in this program was to help them
30 learn how to write grant applications, how to think, how to put
31 their applications together in a hypothesis testing mode, and
32 other apparent modes.

33 The COBRA program was the first major program that
34 addressed the needs that the high level administrators and
35 investigators identified. And again, the investigators wanted to
36 have peer reviewed support.

37 The COBRA program, or Centers of Biomedical Research
38 Excellence, was an extension of other programs that we had

1 developed over many years to try to jump start some of the
2 minority-serving institutions. We learned that we were giving
3 them enough money, we thought. But in retrospect, it was just
4 enough money to fail so that once we withdrew our support, they
5 had no way to keep going on because we had not built adequate
6 infrastructure. And we didn't want to make that mistake here.

7 And so we put together a program to build their
8 research infrastructure facilities, provide them the training,
9 equip their laboratories with first-rate instrumentation, build
10 core research facilities that they identified, and help them
11 develop a critical mass of investigators with complementary
12 expertise in a comprehensive center that they decided what the
13 research focus was to be. And we provided them \$1.5 million per
14 year in direct costs for this program with a lot of flexibility.
15 And we have to provide even more flexibility.

16 No matching funds were required, and there had to be
17 evidence of institution commitment. We didn't require any
18 institution-matching because many of the states in this cohort
19 have legislatures that meet every other year, so it put these
20 states at a marked disadvantage in terms of coming up with
21 matching funds. And some of the states just don't have the
22 wherewithal to come up with a few million dollars to match any
23 award that NIH or NSF would give them.

24 The other EPSCOR-like programs generally require a
25 match, but we wanted to create a level playing field.

26 So the first COBRA was awarded about a little bit over
27 a year ago so we are still in the formative stage of using that
28 mechanism.

29 But in fiscal year 2000, we received 45 applications
30 from the 23 states and Puerto Rico, we initially made 19 awards,
31 and then funded two additional applications the following year
32 out of 2001 money. So at the overall success rate in that first
33 effort was 47 percent.

34 This past fiscal year we again allowed a cohort of
35 states to apply, and there were 26 applications and 9 awards, for
36 a 35 percent award rate. This is peer-reviewed funding.

37 Well, this isn't really why I was invited to present.
38 It was because of this article of September 21st science magazine

1 referring to a controversial idea to shrink the biomedical gap
2 written by Jeffrey Mervis. I think he did a superb job in
3 presenting a balanced description.

4 After we made the COBRA awards, we realized that there
5 are institutions in the states that were not developed very far
6 along. Moreover in some of these states, there are serious
7 problems with the quality of science taught at undergraduate
8 universities, including community colleges. And there were
9 special problems with tribal community colleges, as well, that we
10 wanted to help address.

11 So we started another program. This is a separate
12 program which is part of IDeA, COBRA is actually for more
13 advanced research, and is research intensive. The biomedical
14 research infrastructure network, or BRIN, is a program that
15 actually reaches down to the socks, if you will, of the state,
16 and allows them to build a cohort of institutions that includes
17 undergraduate schools, as well as graduate schools. And most of
18 the applications really have networked with multiple institutions
19 within the state to try to enhance the quality of science taught,
20 and to create a pipeline for that state.

21 We provide a lot of flexibility because no two states
22 and no two networks are the same.

23 In doing this, we realized that some of these states
24 need a lot more help, and we made a conscious decision to fund
25 all the 23 states and Puerto Rico to give them the funds through
26 BRIN. It was peer reviewed, even though we funded everyone.
27 There were about five or six applications that were a little bit
28 off the mark that we had them go back to their drawing board
29 before we funded them to fix the problems administratively to
30 give them the jumpstart to start building their infrastructure.
31 They don't have the flexible funds that many other institutions
32 have for fixing up their research facilities. They don't have
33 much in the way of investigators. So we have to work with them
34 in carrying this out.

35 So basically this is a program that if the
36 investigators wish to be funded by peer review, but the BRIN that
37 we funded, we funded all of them because we want to jumpstart the
38 states in this since we had the wherewithal to help jumpstart

1 them.

2 This approach was presented at an advisory committee to
3 the director of NIH and some members of the panel were dismayed.
4 In fairness to them, they didn't have the entire background of
5 the IDeA program, and made a statement to the effect, "Well, if
6 you are not funding through a peer-reviewed mechanism, then you
7 can't be funding good science."

8 Well, we can't even get to the science in some of these
9 institutions yet. We have to build the infrastructure, get the
10 right faculty imported, recruited, and in place to help jumpstart
11 it.

12 So that's my saga for Louisiana, which is one of our
13 IDeA states. And for us, it has been an interesting exercise,
14 because the have states are have states because there are one to
15 three universities in that state that bring up the collective
16 average of NIH grants or NSF grants in those states. So they are
17 not a have-not state.

18 The interesting thing was there were a couple of states
19 on the borderline. They kept checking with us. They didn't want
20 to become an IDeA state or an EPSCOR state. And so I don't know
21 what they could do about it. It is something we are trying to do
22 to help them, not to hamper them.

23 Thank you.

24 I actually have some questions that I could put up
25 there. Is the IDeA program an earmark, a bad idea, or is it a
26 congressional initiative? I think it's a congressional
27 initiative and it's a good idea. But if Congress mandated that a
28 quarter of all the awards went to the IDeA program, of all of the
29 NIH awards, I would consider that undue advantage and an earmark.

30 The next question that is a general one, is mandating
31 geographical distribution of federal awards earmarking?

32 Well, I consider it would be if one disregards merit,
33 and I am a strong advocate of peer review. You may not agree
34 with me, but that's where I stand. And is a set-aside of a major
35 competitive program for IDEA an earmark? I think that it would
36 be viewed as an earmark.

37 I put in an innocent here to show, is providing a
38 student from a needy family a college scholarship an earmark? It

1 probably is, but it is a good earmark. Not all earmarks are bad
2 things.

3 Thank you.

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