

1 (A short break was taken.)

2 MR. CASTEEN: I should tell you before we start the
3 second session that I overheard in the men's room while washing
4 my hands one person say to another that he thought that in
5 another hour we should have this thing settled, so this is our
6 chance.

7 The first panel was asked to address questions of
8 definition and to try to explore the range of differences in the
9 use of definitions of earmarking in this context.

10 This panel has been asked to look at policy questions,
11 which are obviously embedded in all of the discussions today.

12 But in any event, the title of the panel is
13 Interpretations and Implications of Earmarking. Three panelists,
14 former U.S. Senator J. Bennett Johnston, a Democrat from
15 Louisiana. Judith Vaitukaitis; Dr. Vaitukaitis is the Director
16 of the National Center for Research Resources at NIH. And
17 Raymond E. Bye, Jr., the Vice President for Research with Florida
18 State University.

19 I am going to ask Senator Johnston to begin.

20 MR. JOHNSTON: Thank you very much, John.

21 One of the most important and pleasurable jobs I had in
22 the United States Senate was my chairmanship of the Energy and
23 Water Appropriations subcommittee.

24 We had the largest science jurisdiction of any
25 committee in Congress. We had jurisdiction over the national
26 labs, fusion, atomics physics, high-energy physics, all the DOE
27 programs and renewables, large discretionary programs, everything
28 from education in science to some medical applications at
29 universities. And over the years I really had more contact with
30 scientists in the scientific method and that sort of thing than I
31 guess most any member of Congress. I have spoken to more
32 scientific forums than most scientists have. And I must say it
33 has really been the capstone of my career. I loved it. I loved
34 the scientists with whom I dealt, many Nobel laureates. And I
35 love scientific methods.

36 As a matter of fact, I sponsored in the United States
37 Senate, legislation to require the government agencies in
38 rulemaking to use the scientific method, particularly in risk

1 analysis. I passed it twice in the Senate, but couldn't get it
2 through the House for various reasons. But it is still alive and
3 well.

4 In that very first Congress, back in 1977, when I first
5 got the chairmanship of Energy and Water -- by the way, for 20
6 years, I held the chairmanship or the ranking minority position
7 on that committee -- I had occasion that very first year to speak
8 to a Nobel laureate whose name will be nameless in this speech,
9 but whom you would know very well if I mentioned it. And I was
10 greatly impressed with the responsibility with which I was
11 endowed in that committee.

12 And I said, "You know, I wonder if I ought to appoint a
13 scientist to help me screen these various priorities in nuclear
14 fusion and high-energy physics and all of these things. Without
15 a great scientific background, should I have a scientific
16 screening committee?"

17 And he smiled and said, "No, Senator. That would be
18 the worst mistake you could make."

19 I said, "Why is that?"

20 He said, "Because when you get scientists, if they are
21 high-energy physicists, they believe in high-energy physics,
22 generally to the exclusion of other things. The same thing is
23 true of fusion. The same thing is true of medicine, and right
24 through the various disciplines."

25 It's not always true, of course. But I found, in my 20
26 years on that committee, that that is very, very true.

27 I also found that the judgments that I had to make on
28 that committee in choosing among the various programs, were
29 mainly not scientific judgments. They were more a question of
30 determining the value of a technology, rather than an
31 appreciation of exactly how that technology works.

32 I will give you a little example. A scientist came to
33 us with a technology called Ocean Environmental Conversion, which
34 was to get, simply put, a pipe deep in the sea water in places
35 like Hawaii and Puerto Rico. And the differential would allow you
36 to generate electricity through the conversion of that
37 differential.

38 There were some problems with that, but we were asked

1 to do that. And we had all of the deep scientific discussions
2 about whether it would work and that sort of thing and then I
3 said, "Well, first if this works, how many places can you deploy
4 it?"

5 He said, "Well, Puerto Rico, Hawaii, and we might have
6 ships that we can use."

7 And the point is, they really hadn't thought about the
8 fact that if we developed the technology at great cost, it's
9 application could not be that wide.

10 Those were the kinds of judgments that we constantly
11 had to make. The value of the technology if it works, and to
12 determine its economic feasibility.

13 I mean, this machine you've got -- and by the way, I am
14 still involved with a lot of the technology start-ups. And the
15 scientists come in to my office now. We are able, in the office,
16 to frequently help guide people who are a lot smarter than we are
17 in technology.

18 But the impressions that they have about cost and
19 feasibility and risk and interest and competition and all of
20 those kinds of things. And also we had to determine budget
21 allocations. You know, how much budget allocation do you have in
22 your subcommittee, and how many other priorities do you have? So
23 those are the kinds of things that we had to determine.

24 Let me say that those who oppose peer review, as well
25 as those who oppose non-peer review are going on false premise.
26 That unspoken premise that if you do away with non-peer review
27 projects, that that money would come over to peer reviewed
28 projects.

29 In the case of members of AAU, which has most of the
30 top peer-review money, that money would, the assumption is, come
31 back to you.

32 That, I can tell you, is a false premise. I remember
33 when I was promoting the Superconducting Super Collider, and that
34 is a very interesting story unto itself, and we should have,
35 believe me, should have finished that.

36 Nevertheless, there were some material scientists and
37 material physicists who came up and testified against it. They
38 were just salivating, knowing that if we stopped the

1 Superconducting Super Collider they were going to get all of that
2 money for their area of expertise.

3 And guess what, they were successful. I don't know how
4 much impact they had; they had some. Mainly it was a question of
5 -- that's when everybody was talking balanced budget and they
6 didn't want to cut anything else like Social Security or Medicare
7 or the things that really had the money in them that it was so
8 easy to cut Superconducting Super Collider. Nobody understood
9 what forced electrons were, or positrons, so cut that; it's easy.

10 Anyway they succeeded, and you probably know the story.
11 Not only did they take that money, not only did it not go to any
12 other party at the time, but the whole scientific budget in the
13 ensuing years came down. Because of what we did, we cannibalized
14 and decimated the scientific community, of which the high-energy
15 physicists were very great in numbers.

16 So I can tell you that that would happen here if you
17 did away with these projects. I am a great lover of science,
18 scientists, and the scientific method. But I can tell you this,
19 scientists can be very political and I think in many instances
20 more narrowly political than politicians.

21 Let me give you an example on that. If you know about
22 low-level radiation and the so-called straight line theory, I
23 have studied that a lot. And you have all of these scientists
24 who come in and say, "There is no threshold level of radiation
25 that does harm." And it is just not true. I mean, I am willing
26 to debate that as a non-scientists with anybody who will try to
27 defend it because I have read all of the studies on it.

28 But it is political what they say about it. I had one
29 thing on Yucca Mountain where they were proposing one level of
30 limitation on Carbon 14 which would eliminate one millionth of
31 background at a cost of \$1.5 billion. I mean, there is just no
32 common sense, no scientific method, all politics.

33 They can also be, impractical, spending huge amounts of
34 money. I could give you other examples of this out the kazoo.

35 So while I love them, and I love the scientific method,
36 you know, there is something to be said for politicians who have
37 a constituency out there and a very active, over active press,
38 who look out after them.

1 I can also tell you that peer review can be very
2 personalized. Just because people are in science does not mean
3 you have repealed their quotient of human nature. And it is
4 human nature to go with people you know and people you have done
5 business with.

6 But I do lobbying now. And one reason I am able to be
7 fairly successful is that now I know people and I have
8 relationships with them, and so do the peers. Don't ever think
9 they don't.

10 I can also tell you that there were more Proxmire
11 Golden Fleece Awards for peer reviewed science than there were
12 for congressional earmarks. I have got a list of those, too, if
13 you are interested in those.

14 So I would submit to you that a vigilant press
15 overlooking earmarks is just as solid an indication of the fact
16 that you are going to get a good result as not.

17 And by the way, what's the scope of this problem? OMB
18 did a study that is printed in the budget of the United States
19 for 2002, where they studied this problem. They said that there
20 were some \$44 billion in grants. Of those, \$24 billion were peer
21 reviewed, \$17 billion were generated by the government, itself.
22 You know, like DOE will have a grant, which is not peer reviewed,
23 but is analyzed by the agency. By the way, OMB asked the
24 agencies if that was a problem, not being peer reviewed. They
25 said, "Oh, no. We've got plenty of expertise in-house."

26 But of the \$44 billion only \$2 billion was earmarked by
27 the Congress.

28 Finally, let me say, you all know the figures about,
29 what is it, 50 percent of R&D goes to only five or six states,
30 and a majority of that, only to 20 or 30 institutions, all AAU
31 institutions. And I am sure that they are worthy. But, my
32 friends, let me tell you, it is a political matter where you
33 distribute the largesse that is generated by the tax dollars of
34 the United States. It is a political matter.

35 And it matters a lot where you spend this money in
36 terms of not only jobs, or in the scientific base, but also the
37 economic base of a community. And the Congress has a very
38 legitimate right, and duty, I believe, to say that at least part

1 of that money for science ought to recognize a little
2 distribution. Maybe \$2 billion out of \$44 billion, for God's
3 sake. It ought to be a lot more than that in my judgment. And
4 in my judgment, that \$2 billion is as well spent and as well
5 allocated as the peer-reviewed money.

6 Let me just tell you, it is an old, old battle about
7 earmarks, and you ain't gonna win. And I would say that now that
8 I am not the one doing the earmarking. But if you did win, it
9 would be like the SSC. You would just be taking money away from
10 science and you wouldn't be putting it in your peer-reviewed
11 projects. You would just be taking it away from science. But in
12 the process, you would be stifling the enthusiasm of a lot of
13 Members of Congress who would now think about the scientific
14 capability of their university, and about how it would be nice to
15 put such and such a project at that university, and increases the
16 whole pot of scientific expenditure.

17 We don't spend enough on science in this country. We
18 don't invest enough in our scientific infrastructure as it is.
19 So let's not do anything that tends to hurt that process.

20 My advice is we all ought to promote scientific
21 spending, the best science we can get, because there is not
22 enough of it right now.

23 Thank you.

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