

DASNR Faculty Council Meeting Minutes
April 18, 2003

Members Present: Brian Adam, Dwayne Cartmell, Nurham Dunford, Steve Hallgren, Joyce Jones, Mike Kizer, Clint Krehbiel, Mark Longtine, Dennis Martin, Tom Royer, Marcia Tilley, and Nathan Walker.

Members Absent: Nick Basta, Greg Bell and Steve Cooper.

Non-members Present: Mary Anne Gularte, Don Murray and Tom Peeper.

Ex-officio Members Present: Sam Curl, Dean & Director.

1. Call to Order: 8:04am call to order by Brian Adam, no additional agenda items were added and the agenda was approved.

2. Approval of Minutes: Minutes of the February 21, 2003 AFC meeting were accepted as they appeared at www.afc.okstate.edu.

3. Announcements:

Brian Adam announced that this meeting was the last regularly scheduled meeting of the spring semester. He would be sending out suggested dates for the first fall meeting during the summer months so the AFC members could appropriately plan.

4. Committee Reports:

a. Reappointment, Promotion & Tenure Committee

Marcia Tilley, AFC-RPT Committee Chair, stated that there was no report to provide as the committee had not met since the last AFC meeting.

b. CASNR Curriculum & Academic Standards Committee

Dwayne Cartmell, Liaison to the Curriculum and Academic Standards Committee of CASNR, stated that the committee had met and that there was a push to set degree program hours to a maximum of 120 for graduation. The committee moved that the hours necessary for graduation remain the same as what they are currently.

c. OSU Faculty Council

Don Murray announced that Tom Phillips and Bob Terry were selected as new DASNR representatives to University Faculty Council. Current representatives include Tom Phillips, Bob Terry, Brad Morgan, John Damicone and Don Murray.

A summary of points presented by Don Murray regarding the most recent Univ. Faculty Council meeting follows.

President Schmidly stated that the plan with Northern Oklahoma College would proceed as planned.

Block tuition at OSU will likely become a reality. It will probably occur in fall of 2004. He stated that questions have been raised regarding what happens when student enrolls in a section, the section then fills to capacity, and later students drop the section and section enrollment drops below the maximum, this may cause problems with replacement enrollment if the deadline for drop and add has passed. Also, there have been questions raised regarding how the issue of conflicting classes can be resolved in the case where there are only four years to complete a degree program and both classes are required for graduation.

Steve Hallgren asked Don Murray if there are other Univ. examples of successfully using the "Block" system. - Don indicated that Dr. Schmidly had given several examples of other universities who successfully used the block system, but he could not specifically recall one. None were Oklahoma institutions.

Don reported that another question that could be raised is whether calculations have been made about income declining for the University, due to dorm rooms being rented for less time.

Joyce Jones asked if it was known why students were taking lighter class loads. Don Murray responded that it is not known specifically why they are taking fewer hours unless it was to maintain a higher GPA or they needed more time to work out side of class. Joyce asked if there is consideration of OSU having a faculty senate. Don Murray responded that there was a general faculty meeting recently concerning the possibility of a senate, but that he was unable to attend this meeting.

Don Murray's oral report was approved by the AFC.

Chair Brian Adam thanked Don Murray for his service as AFC representative to Univ. Faculty Council.

5. Old Business:

a. Update from Dean's office on position descriptions

Dean Curl reported that due to the current budget situation, the Dean's office has put the Position Description issue on the back burner. Perhaps in the future it will be discussed once the budget situation is fully understood.

6. New Business

a. Consideration of Bylaws change to permit earlier election of departmental representatives

Brian Adam presented the suggested AFC Bylaw changes and justifications (listed below) for the changes to the AFC for consideration. The AFC voted to support sending the changes to a vote of the faculty for approval.

The suggested changes consist of the following:

1. Allowing Departments to hold their elections to elect an incoming representative to AFC by September 1 (rather than during September).

2. Moving the deadline from Sept 1 to August 1 for Department Administrators to submit a count of the number of full-time faculty present in a department to the AFC Chair person.

3. Clarifying which representatives at the first fall semester AFC meeting have voting privileges.

Justification for the proposed changes:

1. The bylaws currently state that departments must elect their new representatives in the month of September. However, some departments may wish to elect their AFC representative earlier in the calendar year (perhaps in the spring before summer vacations start or in August shortly after faculty members return from vacations or time off) so that incoming members can receive adequate notice of their new assignment and be present with all current and outgoing members at the September AFC meeting. Additionally, for those faculty that are evaluated based on April-March, it allows incoming reps to work the AFC assignment into their plans of work for the upcoming year. Note, there is no change to when the incoming or outgoing representatives start or finish their terms.

2. To be consistent with that proposed change, the department administrator should submit a list of faculty members to the AFC chair by August 1 (rather than September 1) to determine the number of eligible faculty reps that a department can send to the AFC.

3. Considering that both incoming and outgoing AFC reps are present in the first meeting of the fall semester, it should be specified who has voting privileges during this meeting.

b. Questions for the Dean:

Question #1

Would it be possible to have Ag Grants & Contracts help us with the EAR/ITAR regulations? Rather than letting these new regulations add further impediments to grant writing, it would be advantageous to have help from that office to: (1) determine whether our proposed grant is subject to its provisions, and (2) if it is subject, provide assistance with complying. This is especially appropriate if the Division and University are going to seek more grant dollars.

Response by Dean Curl and D.C. Coston:

Management of requirements in grant processing concerning EAR/ITAR requirements is still evolving. The short answer is that the Agriculture Sponsored Programs Office will be assisting faculty in compliance with these requirements.

The longer answer is as follows:

1. EAR/ITAR compliance is a “post-award” function, ie. after you receive notification of a grant award. OSU is working on drafts of forms that will become part of all award routings to be used for compliance. The first of these will include a set of eight questions that address whether or not further processing for EAR/ITAR will be needed. The Agriculture Sponsored Programs Office will be completing these eight questions. If all answers are “no”, then no further processing will be required.

2. If one (or more) of the answers is/are “yes” then the investigators will have to become involved to identify the appropriate field(s) of science and complete the remainder of the forms.
3. Jan Madole expects that 80-90% of our awards will not require anything beyond the eight questions. She expects that NSF, NIH, USDA, state agency, commodity organization, and consolidated awards will have “no” answers to the questions.
4. Agencies from whom we might receive awards that could likely have restrictive clauses in their documents and thus trigger “yes” answers include: Department of Defense, NASA, EPA, DOE, and some private companies.

The forms are still drafts. Jan Madole expects that they should be finalized within the next month to 6 weeks (drafts were sent to departments on March 19 – there have already been some modifications to these drafts).

As noted above, none of these review steps are required at the proposal routing and submission time. However, if faculty are submitting to one of the sponsors listed above (note 4) that may have restrictive contract clauses, then it would be advantageous to them to classify their research shortly after they submit the proposal to determine if it involves technologies that are covered by EAR / ITAR. This will help the faculty member to be prepared to address these issues when the award is received and to avoid delays in initiating the project. This is especially true if the faculty member thinks that he or she may have foreign nationals working on the project, or it could provide them with information to consider when making hiring decisions. Furthermore, projects that are found to fall under EAR/ITAR controls and to require a license could be delayed as this process is time-consuming. Again, starting before the award is received would help reduce the delay.

When this review procedure is initiated at the University level, Jan will distribute the information to the departments and will be available to answer questions. Jan’s office will be prepared to handle the eight questions as noted above. If faculty need assistance with the second part of the review, they may contact Kay Ellis in the Office of University Research for one-on-one assistance.

As we all become more familiar with these requirements, Jan and the Agriculture Sponsored Programs Office will become more familiar with the procedures, and will be able over time to improve processes.

Question #2

During President Schmidly’s speech on March 21 he said (in discussing his goal to increase federal grant dollars) that Oklahoma pays more in federal taxes than it receives. Do you know the source of his information? The statement is inconsistent with data published by the Tax Foundation (<http://taxfoundation.org/pr-fedtaxspendingratio99.html>) and by the Census Bureau (<http://www.census.gov/prod/2001pubs/cffr-00.pdf>). The Tax Foundation website states that the ratio of Federal Expenditures/Federal Taxes Paid for Oklahoma was

	1989	1999
OK	1.27	1.43
U.S. rank	17	11

This appears to show that Oklahoma is above the average nationally, and from 1989 to 1999 has increased its ratio as well as its rank in the U.S. for federal revenues received to taxes paid.

Response by Dean Curl:

President Schmidly's statement, as I understood it and as was suggested in the question itself, was that Oklahoma does not receive its fair share of federal grant dollars sent to universities, medical schools, and other research agencies for support of research. The U.S. Census data to which the question refers has to do with all federal expenditures (including government payments of various kinds, social security, military expenditures, etc.) in relation to federal taxes paid (see attached Appendices A & B).

Question #3

I have noticed recently that the DASNR website has a new triangular symbol on the banner of the home page. Is this a new symbol of our 3-pronged land grant mission that is intended for general use by Extension, the Experiment Station and CASNR, or is this something developed strictly for use on the website?

Response by Mary Ann Gualarte and Dean Curl:

Over the past few months, the webpage design for the Division, CASNR, OAES, OCES, Agricultural Communications Services (ACS), and SUNUP has been updated. The new design includes several graphic elements including a triangular icon. (see website <http://www1.dasnr.okstate.edu/>) The webpage design will be refined over the next few months. Once the webpage design is finalized, it will be made available for use by interested departments/units on- and off-campus. We plan to incorporate many of the graphic elements seen in the new webpage design (including the triangle) into other media as they are updated. The triangle is a graphic element and is not intended to be used as a logo. An assortment of updated graphic elements will be made available to departments/units this summer.

Question #4

What is Dean Curl's **realistic** vision for extension given the impending budget crisis it faces? We in extension do not want wishes, ifs, or nice-sounding or feel-good platitudes. Where will extension *really* be in 1 year, or 3 years? What is the outlook for those of us who derive our livelihood from OCES? We are gutting one of the best delivery methods – Sunup – and about to gut another – the area specialist system. Will Oklahoma learn what many other states learned years ago – that we cannot rely on the traditional structure to deliver effective programs?

Response by Dean Curl:

In responding to this statement, let me focus on the two questions it poses:

(1) What is Dean Curl's realistic vision for extension given the impending budget crisis it faces?

We do not know yet how great our additional reduction for FY 04 will be. We are currently at minus 8.25% for FY 03 compared with FY 02. The FY 04 figure currently being discussed in the Oklahoma Senate would reduce our budget by another 2 to 3% and the House figure currently under discussion would reduce our budget by another 5 to 6%. I hasten to emphasize that these figures are only tentative at this point and are subject to much change.

Given the divergence between the House and Senate scenarios for FY 04 funding of higher education (as much as \$600,000 apart with respect to the OCES budget), we cannot yet formulate precise plans for dealing with the budget shortfall in OCES. That uncertainty notwithstanding, the following ideals or guiding principles capture the essence of our vision for extension and will guide us as we deal with the budget crisis:

- Target programs to address priority needs of established clientele groups
- Maintain the quality of the programs we deliver by focusing our efforts in priority areas.
- Attempt to maintain a base staff of two educators and one secretary in every county.
- Work with local leadership to help our clientele understand, value, and support the mission of their land-grant university. Promote full engagement with the broad –based leadership in each county.
- Invest in the technology and human resources needed to take full advantage of web-based program delivery.

(2) Where will Extension really be in 1 year, or 3 years?

OCES is committed to a strong grassroots presence in all 77 counties, excellence in the educational programs it offers, and full engagement with the people it serves. The OCES administration will adjust to ongoing budget difficulties as quickly as the amounts of our reductions are known in order to continue to adhere to our guiding principles and stated goals. We are doing, and will continue to do, the very best we can in dealing with an unprecedented budgetary situation.

Question #5

Would it be possible to send at least a monthly update on the budget situation for Extension? An early retirement program is expected, area/district staff will likely be re-assigned, and county staffing will likely change. Some of the stress surrounding this uncertainty could be relieved, I think, by regular, official communication. Even if the communication did not have answers, at least people would know that the administration is doing its best to take care of the employees by keeping them as informed as possible. It is not that I think administration is not taking care of employees. I am simply suggesting a method of further assisting employees by letting them know they will receive regular updates. An email once a month seems a reasonable plan.

Response by Dean Curl:

Dave Foster has made a practice of sharing budget information as new information becomes available. We appreciate the need for regular updates and will provide them. During the remainder of the fiscal year, bi-weekly budget updates will appear in the *Extension News*. We will also continue to send special updates via e-mail.

Question #6

Does the Dean's office have a response to the Ag Faculty Council's recommendation (February 21, 2003) on the proposal to rewrite Position Descriptions?

Response by Dean Curl:

The Associate Dean/Directors and I appreciate the Council's study of the position descriptions issue and the recommendations you provided to us. Partly due to the priority we have, of necessity, assigned to budget reduction planning and implementation this spring, we have not as yet brought this topic back to the table for discussion. As you know, we have for some time been indicating in letters of offer to new faculty the expectation that during their first few months on the job, they will, in conjunction with their Department Head, prepare a more specific description of their duties than that contained in a general position announcement.

Question #7

In Dr. Foster's April 7 memorandum regarding the probable 10-11% additional budget cut in FY04 for Extension he mentioned realignment and elimination of programs as possible cost-cutting measures. Has the DASNR administration discussed any possible cost-cutting measures? Has the DASNR administration discussed any contingency plans in this regard? Does this mean all extension specialists in an academic department or all educators in a specific program area such as horticulture or rural development will be laid-off?

Response by Dean Curl:

First, we need to set the record straight with respect to the likelihood of further budget reductions in the neighborhood of 10-11%. Dr. Foster's memo of April 7 does not suggest that cuts of that magnitude are **probable**, only that we have been advised to **plan** for that contingency. I can assure you that we have been engaged in a great deal of contingency planning.

It should also be noted that CASNR and OAES were also advised to plan for an additional 10% reduction. Moreover, the budget reversions for all three programs to date are approximately equivalent. Both OAES and OCES have lost 8.25% of their state funding; CASNR has lost 8.1%. It appears now that the total reduction from FY 02, including the 8.25% we are already down in OAES and OCES might be in the neighborhood of 11%. We are told that that may be a best case scenario.

We are engaged in continuing discussions regarding the budget situation. Although a variety of options, including those mentioned by Dr. Foster, are available to us, their implications for all three mission areas must be weighed carefully. Because of the level of integration between teaching, research, and extension, many aspects of budget management must be handled at the Division level, as would be the case with either horticulture or rural development.

Although we continue to discuss a variety of contingencies, no contingency plans for dealing with the budget shortfall can be finalized until (1) the FY 04 budget and the amount of any tuition offset for OCES and OAES is known, and (2) in the case of extension, the number of people who are going to take advantage of the retirement incentive opportunity.

c. Budget update from Dean Curl and Associate Deans

Due to the same topic being present in question #7 to the Dean, the discussion for these topics appears under Question #7 for the Dean (above).

6. Adjournment:

Meeting adjourned at 9:20 a.m.

Respectfully Submitted

Dennis Martin
AFC Secretary

Appendix A

**Table # 462. Excerpted from
“Federal Government Finances and Employment Section. 2002 Statistical
Abstract of the United States. U.S. Census Bureau. p. 313.”**

No. 462. Per Capita Federal Balance of Payments by State: 1990 to 1999

[In dollars, except rank. For year ending Sept. 30. Represents federal spending within the borders of the 50 states, including defense and excluding interest payments on the federal debt. Each state runs a balance of payments surplus or deficit with the federal government. Put another way, each state indirectly subsidizes or is being subsidized by the other states]

State	Balance of payments			1999						
	1990	1995	1998	Balance of payments	Rank	Federal taxes	Federal spending in the state			
							Total ¹	Defense	Non-defense	Social Security
Alabama	1,948	1,629	1,863	2,091	9	4,519	6,610	1,320	1,964	1,802
Alaska	1,025	1,063	2,155	2,777	6	4,872	7,649	2,194	3,786	657
Arizona	1,163	853	493	904	20	4,713	5,617	1,361	1,689	1,474
Arkansas	1,163	1,057	1,534	1,633	13	4,238	5,871	595	1,772	1,932
California	-481	-255	-600	-685	39	5,593	4,909	943	1,439	1,195
Colorado	960	-233	-444	-620	38	5,923	5,303	1,408	1,884	1,143
Connecticut	-1,898	-2,466	-2,432	-2,840	50	8,064	5,224	1,046	1,156	1,543
Delaware	-1,861	-1,415	-1,050	-1,025	43	5,876	4,851	615	1,458	1,578
District of Columbia	28,482	33,259	37,804	42,514	(X)	7,451	49,965	6,295	39,471	1,242
Florida	57	258	128	47	31	6,074	6,121	1,058	1,392	2,025
Georgia	-218	85	-111	-29	32	5,523	5,493	1,322	1,626	1,360
Hawaii	1,056	908	1,981	1,982	10	3,955	5,937	2,391	1,441	1,107
Idaho	1,342	552	817	829	21	4,349	5,178	1,166	1,616	1,412
Illinois	-1,588	-1,687	-1,535	-1,669	47	6,260	4,592	354	1,442	1,501
Indiana	-478	-789	-374	-399	35	5,085	4,686	493	1,318	1,663
Iowa	366	53	548	750	22	5,071	5,820	325	2,409	1,837
Kansas	318	46	187	373	25	5,459	5,832	898	2,083	1,646
Kentucky	1,192	1,363	2,073	1,595	14	4,516	6,111	970	1,702	1,858
Louisiana	1,147	1,439	1,312	1,576	15	4,432	6,008	788	1,815	1,597
Maine	821	1,262	1,668	1,324	16	4,215	5,539	1,110	1,399	1,589
Maryland	1,306	1,731	2,148	1,770	12	6,564	8,334	1,895	3,768	1,322
Massachusetts	89	-304	-793	-895	42	6,256	5,361	836	1,528	1,415
Michigan	-1,070	-1,411	-1,231	-1,042	44	5,724	4,682	265	1,197	1,742
Minnesota	-680	-1,454	-1,568	-1,294	45	6,069	4,775	432	1,713	1,455
Mississippi	2,364	2,409	2,351	2,684	7	3,905	6,589	1,285	1,877	1,776
Missouri	1,633	1,457	1,269	1,187	18	5,358	6,544	1,293	1,966	1,776
Montana	1,764	1,774	2,454	3,109	2	4,279	7,389	596	3,939	1,624
Nebraska	587	-166	125	320	27	5,304	5,624	657	2,177	1,614
Nevada	-991	-1,420	-1,802	-1,583	46	5,938	4,355	944	1,172	1,349
New Hampshire	-1,644	-1,430	-1,565	-1,787	48	5,854	4,067	576	1,189	1,358
New Jersey	-2,404	-2,079	-2,054	-2,342	49	6,705	4,362	504	1,097	1,452
New Mexico	3,906	3,651	3,778	3,944	1	4,048	7,992	2,655	2,678	1,387
New York	-1,068	-943	-854	-890	41	5,834	4,944	305	1,370	1,473
North Carolina	-179	-41	66	146	30	5,141	5,287	898	1,415	1,666
North Dakota	2,167	1,870	2,568	3,043	4	4,647	7,690	1,005	3,745	1,624
Ohio	-186	-438	-369	-344	34	5,171	4,827	514	1,275	1,660
Oklahoma	1,028	1,233	1,755	1,866	11	4,332	6,198	1,255	1,864	1,685
Oregon	-25	-436	-441	-483	36	5,235	4,752	354	1,564	1,571
Pennsylvania	-222	166	218	256	28	5,275	5,531	563	1,450	1,812
Rhode Island	141	495	754	528	23	4,976	5,504	824	1,409	1,624
South Carolina	1,592	1,119	1,159	1,265	17	4,546	5,810	1,438	1,346	1,682
South Dakota	1,682	1,053	1,838	2,327	8	4,949	7,276	638	3,720	1,678
Tennessee	700	742	1,000	961	19	5,110	6,071	686	2,029	1,722
Texas	-100	-54	-252	-189	33	5,566	5,377	1,037	1,801	1,278
Utah	1,503	734	9	230	29	4,094	4,324	725	1,854	989
Vermont	-623	18	167	343	26	4,719	5,061	587	1,690	1,491
Virginia	2,454	2,970	2,969	3,069	3	5,756	8,825	3,685	2,851	1,382
Washington	264	-31	-355	-533	37	5,872	5,339	1,377	1,490	1,325
West Virginia	1,627	2,415	2,710	2,808	5	3,916	6,724	419	2,036	2,332
Wisconsin	-715	-1,149	-886	-887	40	5,409	4,521	284	1,333	1,688
Wyoming	836	294	243	386	24	5,951	6,338	769	3,062	1,472

X Not applicable. ¹ Includes categories of spending, not shown separately.

Source: Jay H. Walder and Herman B. Leonard, Tauber Center for State and Local Government and John F. Kennedy School of Government, Harvard University, *The Federal Budget and the States*, annual.

Appendix B

**Table # 755. Excerpted from
“Science and Technology Section. 2002 Statistical Abstract of the United
States. U.S. Census Bureau. p. 503.”**

No. 755. Performance Sector of R&D Expenditures by State: 1998

[In millions of dollars (226,872 represents \$226,872,000,000). Industry R&D data refer to calendar years; other R&D data refer to fiscal years but may serve as approximation to calendar year data]

State	Industry					Universities and colleges						Other non-profit institutions funded by federal government ⁵
	Funded by—					Funded by—						
	Total R&D ¹	Federal government ²	Total	Federal government ³	Industry ⁴	Total	Federal government	Non-federal government	Industry	U&Cs	Non-profits	
U.S. . .	226,872	17,403	169,180	24,164	145,016	26,547	15,533	1,993	1,933	5,166	1,923	3,236
AL.	1,926	753	707	180	527	442	282	7	30	82	40	24
AK.	(D)	44	(D)	(D)	9	76	32	4	16	24	-	4
AZ.	2,318	138	1,727	490	1,237	406	210	12	22	147	15	8
AR.	283	46	118	(D)	(D)	117	41	33	8	27	7	2
CA.	43,919	1,595	35,568	3,803	31,764	3,345	2,009	146	213	702	274	519
CO.	4,565	202	3,565	1,237	2,329	489	332	26	27	68	36	55
CT.	3,559	18	3,113	179	2,935	404	262	13	26	67	35	24
DE.	2,556	4	2,476	13	2,463	73	36	5	4	19	9	3
DC.	2,606	1,718	503	90	413	233	166	2	19	26	19	150
FL.	4,773	750	3,300	889	2,411	713	356	81	52	184	40	11
GA.	2,492	236	1,444	86	1,358	802	370	70	86	246	30	10
HI.	242	55	17	(D)	(D)	148	87	37	11	13	-	22
ID.	1,127	25	1,028	(D)	(D)	72	25	22	8	16	1	1
IL.	8,830	72	6,892	136	6,755	1,046	587	57	60	262	81	62
IN.	3,089	38	2,622	(D)	(D)	425	214	26	40	126	19	3
IA.	1,054	33	634	(D)	(D)	358	167	53	31	89	18	4
KS.	1,518	25	1,279	(D)	(D)	213	80	47	12	56	17	1
KY.	645	7	427	(D)	(D)	210	80	15	19	86	9	2
LA.	542	84	102	14	87	352	144	78	23	87	20	4
ME.	159	11	82	(D)	(D)	35	14	2	7	11	1	31
MD.	8,019	4,766	1,744	655	1,089	1,330	1,014	63	42	143	69	179
MA.	13,382	301	10,604	2,419	8,185	1,343	987	32	107	99	118	707
MI.	13,655	111	12,648	(D)	(D)	878	472	56	59	221	69	18
MN.	3,818	38	3,321	334	2,986	365	206	48	25	56	29	94
MS.	366	133	73	17	57	153	80	29	10	31	2	8
MO.	1,868	49	1,313	(D)	(D)	484	278	24	30	109	43	22
MT.	191	33	82	(D)	(D)	72	36	14	8	13	1	3
NE.	315	29	93	(D)	(D)	186	63	47	17	55	5	7
NV.	571	49	434	(D)	(D)	84	45	5	5	24	4	4
NH.	1,340	34	1,187	(D)	(D)	117	71	8	6	17	14	2
NJ.	11,368	393	10,415	134	10,282	485	228	40	27	150	39	17
NM.	3,032	396	1,205	(D)	(D)	229	152	13	13	46	5	15
NY.	13,731	192	11,176	2,216	8,960	1,925	1,224	82	96	286	236	221
NC.	4,560	236	3,362	12	3,350	899	516	129	121	96	36	64
ND.	119	27	34	-	34	57	23	1	4	26	4	1
OH.	6,970	698	5,338	605	4,732	808	444	74	88	152	49	125
OK.	513	51	245	2	243	209	84	37	13	60	15	8
OR.	1,910	88	1,492	26	1,467	310	203	33	10	38	25	21
PA.	8,762	133	7,083	485	6,598	1,342	873	44	156	199	70	174
RI.	1,677	222	1,320	(D)	(D)	112	78	3	2	26	3	23
SC.	989	45	695	(D)	(D)	246	113	27	11	83	11	3
SD.	60	28	5	-	5	25	12	8	-	3	2	2
TN.	2,503	38	2,040	(D)	(D)	346	208	37	20	54	28	28
TX.	10,774	597	8,408	223	8,185	1,698	910	179	140	290	179	69
UT.	1,495	135	1,109	181	928	249	165	18	14	43	10	1
VT.	175	4	112	32	80	58	31	3	6	12	6	1
VA.	4,934	1,480	2,707	1,614	1,093	491	289	49	46	77	30	44
WA.	8,466	184	7,476	(D)	(D)	534	384	13	42	77	19	122
WV.	421	97	225	(D)	(D)	63	25	3	5	27	4	1
WI.	2,501	38	1,919	(D)	(D)	536	300	44	20	111	61	8
WY.	65	12	2	-	2	49	18	5	3	21	1	3
Unknown.	12,119	912	5,709	8,092	34,452	905	507	89	73	183	65	301

- Represents zero. D Data withheld to avoid disclosing information about individual companies. ¹ Includes university and college Federally Funded Research and Development Centers (FFRDCs). Nonprofit FFRDCs not shown separately. ² For R&D funded by the federal government. ³ Includes performance at industry Federally Funded Research and Development Centers (FFRDCs). Nonprofit FFRDCs not shown separately. ⁴ Includes all nonfederal sources. ⁵ Data by state are for R&D funded by the federal government.

Source: U.S. National Science Foundation. Data derived from *Research and Development in Industry*, annual; *Academic Research and Development Expenditures*, annual; and *Federal Funds For Research and Development*, annual.