

**NATIONAL SCIENCE FOUNDATION
INDUSTRY/UNIVERSITY
COOPERATIVE RESEARCH CENTERS**

FINAL

**1991-92 PROCESS OUTCOME
SURVEY RESULTS**

**DESCRIPTIVE STATISTICS
COMPILED FROM
FACULTY AND INDUSTRY FORMS:
LONG AND SHORT VERSIONS**

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FINAL

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**NOTE: PLEASE DO NOT QUOTE OR CITE WITHOUT
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OVERVIEW**The Sample**

The final response rate: 35/42 "applicable" centers (83%).

Faculty Short: 157 cases	Industry Short: 217 cases
Faculty Long: 100 cases	Industry Long: 105 cases
Totals: 257 Faculty	322 Industry

Notes

All of the data included in the 1991 data set reflects respondent reports of activity for their center for 1991-92. The data are presented in the same order as they appear in their respective questionnaires (i.e., Faculty Long or Industry Long). Please note that the varying response rates are due to:

- a) Some questions are not included in the short form (See Appendices for cross-referencing and to determine which items are considered in both versions).
- b) Missing Data.

Also, please recall that the "Long" Version questionnaires are required after a center's first and third year of operation. Thus, the subsample responding to the "long form" will tend to be different (younger) than the total sample.

Five Industry Form questions (19A, 19B, 20A2, 25A, & 25B) warranted the reporting of means in two ways: 1) based on respondents who reported some activity only; and 2) based on all respondents (those reporting no ACTIVITY were treated as if they reported zero).

Please note that there has been a slight increase to several questions' "response rates" due to successful validation of previously excluded data. Recall that some data was selectively excluded from the pre-June meeting *Draft Version* of this report due to the possibility of coding error, especially as it pertained to "outliers." Center evaluators were requested to check the suspect data and validate by phone, mail, or in-person. This additional check has been implemented to the process outcome "data management" system in order to more accurately reflect the true means, medians, standard deviations, and percentages AND not allow questionable data to overly influence the validity of the information provided in this report.

1991-92 FACULTY RESULTS

		<u>N</u>	<u>%</u>						
1. In general, how much experience do you have working with industry?									
	A great deal	54	54						
	A moderate amount	29	29						
	A little	14	14						
	None at all	3	3						
2a. Academic Rank									
	Assistant	14	14						
	Associate	28	29						
	Full	43	44						
	Other	12	12						
2b. Is Respondent Tenured?									
	Tenured	68	69						
	Not Tenured	31	31						
Respondent in Tenure-Track Position?									
	No	15	50						
	Yes	15	50						
3. Percent Allocation of FTE:		<u>MEAN</u>	<u>SD</u>						
	Center-Funded Research	24%	20.4						
	Non-Center Research	19%	17.2						
	Teaching	31%	19.0						
	Administration	17%	19.2						
	Other	9%	17.1						
4. Extent of University Influence on Decisions Affecting the Center:									
				<i>No</i>	<i>Some</i>	<i>A lot of</i>		<i>Almost</i>	
				<i>Influence</i>	<i>Influence</i>	<i>Influence</i>		<i>Complete</i>	
				1	2	3		4	
	<u>MEAN</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Planning and Strategy	1.5	49	56	33	38	6	7	0	0
Project Selection	1.1	80	92	6	7	1	1	0	0
Conduct of Research	1.2	71	82	16	18	0	0	0	0
Evaluation of Research	1.2	68	79	18	21	0	0	0	0
Budget and Logistics	1.8	39	46	28	33	16	19	2	2
Appointments of Faculty	2.3	22	26	29	35	22	26	11	13

and Staff

4b. Extent of Center Director Influence on Decisions Affecting the Center:

	MEAN	<i>No Influence</i>		<i>Some Influence</i>		<i>A lot of Influence</i>		<i>Almost Complete Control</i>	
		1		2		3		4	
		N	%	N	%	N	%	N	%
Planning and Strategy	2.9	10	11	8	9	56	61	18	20
Project Selection	2.5	13	14	31	34	34	37	14	15
Conduct of Research	2.0	23	26	45	51	16	18	4	5
Evaluation of Research	2.4	11	13	36	41	36	41	5	6
Budget and Logistics	3.0	6	7	12	14	47	54	22	25
Appointments of Faculty and Staff	2.4	27	33	13	16	29	35	14	17

4c. Extent of Faculty Influence on Decisions Affecting the Center:

	MEAN	<i>No Influence</i>		<i>Some Influence</i>		<i>A lot of Influence</i>		<i>Almost Complete Control</i>	
		1		2		3		4	
		N	%	N	%	N	%	N	%
Plan.. and Strategy	2.2	18	21	44	50	18	21	8	9
Project Selection	2.1	26	29	39	44	15	17	9	10
Conduct of Research	3.2	10	11	7	8	28	30	47	51
Eval. of Research	2.3	21	24	27	30	31	35	10	11
Budget and Logistics	2.2	23	26	33	38	25	29	6	7
Appointments of Faculty and Staff	2.2	23	27	33	39	19	23	9	11

4d. Extent of Industry Advisory Board Influence on Decisions Affecting the Center:

	MEAN	<i>No Influence</i>		<i>Some Influence</i>		<i>A lot of Influence</i>		<i>Almost Complete Control</i>	
		N	%	N	%	N	%	N	%
Plan. and Strategy	2.7	9	10	24	26	48	52	12	13
Project Selection	3.1	8	9	10	11	41	45	33	36
Conduct of Research	2.0	23	26	49	54	14	16	4	4
Eval. of Research	2.9	10	11	15	17	41	45	25	28
Budget and Logistics	2.4	17	20	29	33	32	37	9	10
Appoint. of Faculty and Staff	1.5	58	68	19	22	4	5	4	5

4e. Extent of Student Influence on Decisions Affecting the Center:

	MEAN	<i>No Influence</i>		<i>Some Influence</i>		<i>A lot of Influence</i>		<i>Almost Complete Control</i>	
		N	%	N	%	N	%	N	%
Planning and Strategy	1.3	67	76	19	22	2	2	0	0
Project Selection	1.2	72	82	11	13	5	6	0	0
Conduct of Research	2.0	30	34	31	35	23	26	5	6
Eval. of Research	1.3	63	72	19	22	5	6	0	0
Budget and Logistics	1.1	77	90	7	8	2	2	0	0
Appoint. of Faculty and Staff	1.1	80	93	5	6	1	1	0	0

4f. Extent of Established University Procedures Influence on Decisions Affecting the Center:

	MEAN	<i>No Influence</i>		<i>Some Influence</i>		<i>A lot of Influence</i>		<i>Almost Complete Control</i>	
		N	%	N	%	N	%	N	%
Planning and Strategy	1.6	42	49	39	46	3	4	1	1
Project Selection	1.2	74	88	8	10	1	1	1	1
Conduct of Research	1.4	59	69	23	27	2	2	1	1
Evaluation of Research	1.2	70	84	12	15	0	0	1	1
Budget and Logistics	1.7	44	52	26	31	11	13	3	4
Appoint. of Faculty and Staff	1.8	43	52	20	24	12	15	7	9

5. During the past year how satisfied were you with the following features of the Center?

	MEAN	<i>Completely Satisfied</i>		<i>A Great Deal Satisfied</i>		<i>Somewhat Satisfied</i>		<i>Not At All Satisfied</i>	
		N	%	N	%	N	%	N	%
Technical quality of the research	3.1	79	32	126	51	39	16	4	2
Commun. between Staff and Industry	2.9	53	22	112	47	70	29	5	2
Center Administ. practices	2.8	58	24	106	44	58	24	21	9
Responsiveness to Industry needs	3.0	72	30	107	45	55	23	4	2
Innovative quality of research	3.0	64	26	122	49	57	23	5	2
Project selection process	2.8	54	22	115	47	58	24	19	8

6. How important to you are the following goals and outcomes of the Center?

	MEAN	<i>Extremely Important</i>		<i>Considerably Important</i>		<i>Somewhat Important</i>		<i>Not at all Important</i>	
		4		3		2		1	
		N	%	N	%	N	%	N	%
General expansion of knowledge in this technical area	3.6	69	70	26	26	3	3	1	1
Enhancement of graduate students' technical training	3.2	40	40	41	41	17	17	1	1
Enhancement of graduate students' understanding of industry	2.8	23	23	42	42	30	30	4	4
Redirection of university research toward industrial problems	2.9	30	30	35	35	27	27	7	7
Enhancement of quality of industrial research	2.9	29	30	38	39	26	27	5	5
Development of new research projects	2.7	24	25	31	32	31	32	11	11
Development of patentable products	2.0	6	6	24	25	32	33	36	37
Development of commercialized products	2.1	5	5	28	28	34	34	32	32

7. Compared to the research you typically conduct outside the Center, would you describe your Center-funded research as:

	MEAN	<i>More Basic</i>		<i>No Effect</i>				<i>More Applied</i>			
		1		2		3		4		5	
		N	%	N	%	N	%	N	%	N	%
Basic or Applied	3.6	1	1	06	6	37	39	41	43	11	12
		<i>Broader</i>				<i>Narrower</i>					
Broader or Narrower in Scope	3.1	3	3	25	26	33	34	26	27	9	9
		<i>Longer</i>				<i>Shorter</i>					
Time Frame	3.3	3	3	15	16	38	40	30	31	10	10

8. What effect has participation in the Center had for you in the following areas:

	MEAN	Negative Effect				No Effect				Positive Effect			
		N	1		2		N	3		4		5	
			N	%	N	%		N	%	N	%	N	%
Opportunities for Consulting	3.4	3	1	10	4	146	58	68	27	26	10		
Opportunities for Research Contracts	3.9	1	0	6	2	76	30	104	42	62	25		
Access to Equip	3.8	4	2	6	2	96	38	90	35	58	23		
Trust and Conf. in Industry	3.7	1	0	13	5	85	34	107	42	48	19		
Evaluation of the Quality of Industrial Research	3.6	2	1	14	6	96	38	104	41	36	14		
Chances for Promotion/ Tenure & Salary Increases	3.5	3	1	15	6	123	49	79	31	33	13		
Amount of Inter-action with Other Faculty	4.0	2	1	5	2	40	16	151	59	57	22		
Ability to Support Student Theses/ Dissertation Research	4.2	3	1	6	2	42	17	100	39	100	41		
Amt. of Autonomy in Conducting Research	3.6	4	2	31	12	85	34	86	34	47	19		
Ability to Publish in a Timely Fashion	3.5	3	1	30	12	108	43	74	29	39	15		

9. What effect has participation in the Center had for the university in the following areas?

	MEAN	Negative Effect				No Effect				Positive Effect	
		1		2		3		4		5	
		N	%	N	%	N	%	N	%	N	%
Knowledge Base	4.1	0	0	0	0	19	20	50	53	25	27
Student Recruit.	3.9	0	0	0	0	33	35	38	40	23	25
Faculty Recruit.	3.6	0	0	0	0	46	50	33	36	13	14
Qual. of Research Projects in the University	3.9	0	0	3	3	27	29	43	46	21	22
Res. Funds from Private Sources	3.9	1	1	0	0	30	32	36	38	28	30
Res. Funds from Public Sources	3.9	0	0	0	0	30	32	45	48	19	20
University Patent	3.2	0	0	4	4	67	72	19	20	3	3

10. Compared to other forms of research funding you have received in the past, how would you rate this Center on the following dimensions?

	MEAN	Compares Favorably		About the Same		Compares Unfavorably	
		1		2		3	
		N	%	N	%	N	%
Amount of work invested to obtain funding	1.8	40	42	35	37	20	21
Administrative time/effort invested in project	1.9	27	28	50	53	18	19
Likelihood funding will be avail. to support my long range goals	1.9	30	31	42	44	24	25
Amount of funding provided to conduct research	2.0	22	23	50	52	24	25
Budgetary flexibility	1.8	30	31	57	59	9	9

11a. During the past year, how many publications in the open literature have you had based on center research?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
	249	2.4	2	4.0
b. How many of these were with company scientists?				
	233	0.4	0	1.6
c. With students?				
	237	2.2	1	5.6

12a. During the past year, how many presentations have you made at conferences or professional meetings based on center research?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
	248	3.0	2	5.3
b. How many were with company scientists?				
	235	0.4	0	1.2
c. With students?				
	238	2.2	1	4.2

13a. During the past year, how many students theses/dissertations based on Center research were completed under your supervision?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
	241	0.8	0	1.7
b. How many of these are currently in progress?				
	245	1.8	1	2.4

14a. Excluding Center board/monitor meetings, how many times during the past year did you personally have contact with individuals from other companies?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
1. By phone?	250	17.4	10	24.9
2. In person?	249	9.2	4	16.9

b. During the last year, how many days have you spent visiting or working at member company laboratories?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
Number of Days	243	5.9	1	14.6

15. How long, on average, do you feel that it should take for a new Center research project to yield tangible results?

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>Std. Dev.</u>
Number of months	249	20.2	20	11.8

16. To what extent are you generally satisfied with the operation and activities of the Center?

<u>MEAN</u>	<i>Completely Satisfied</i>		<i>Considerably Satisfied</i>		<i>Somewhat Satisfied</i>		<i>Not at all Satisfied</i>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
3.0	64	25	138	55	42	17	9	4

INDUSTRY RESULTS FOLLOW

1991-92 INDUSTRY RESULTS

	<u>N</u>	<u>MEAN</u>	<u>MED.</u>	<u>SD</u>
1. How many years have you spent with the company?	105	15.6	15	9.5
2. How many years have you spent in R&D with the company?	105	11.1	9	9.2
3. How many years have you spent in industry in general?	105	21.4	21	9.4
4. How many years have you spent in R&D with industry?	105	13.8	12	10.1

5a. What is the highest degree you have received?	<u>N</u>	<u>%</u>
High School	11	11
AA/AS	14	14
BA/BS	30	29
MA/MS	29	28
Ph.D.	30	19

b. In what field?

Engineering	59	57
Physical Science	27	26
Social Science	0	0
Liberal Arts	2	2
Management	11	11
Other	4	4

6. Coursework from university where Center is located?

Yes	13	12
No	92	88

	<u>N</u>	<u>MEAN</u>	<u>SD</u>
7. How many years have you been a board member?	97	2.8	2.1
8. Were you a board member when your company joined the Center?	<u>N</u>		<u>%</u>
Yes	48		48
No	52		52

9. To what extent do you have scientific/technical expertise in the research areas being investigated within the Center?

Degree of technical expertise:

	<u>FREQ</u>	<u>%</u>
In (almost) no areas	4	4
In a few areas	27	26
About half	20	19
In most areas	48	46
In all areas	6	6

10. How involved were you in the establishment of the Center?

Not at all	67	64
A little	16	15
A modest amount	11	11
A great deal	10	10

11. How frequently do you disseminate Center technical reports and updates to the following groups?

	<u>MEAN</u>	<i>Never</i>		<i>1-2/year</i>		<i>3-4 year</i>		<i>5+/year</i>	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Technical staff in your group	2.9	11	4	110	36	96	31	92	32
Technical staff in your division	2.6	28	9	130	43	80	26	66	22
Technical staff in other divisions	2.2	69	23	139	46	57	19	38	13
Your immediate supervisor	2.4	65	21	122	40	67	22	54	18
Top corporate management	1.6	171	58	93	31	19	6	13	4

13. During the past year, how would you rate the overall research program in the Center compared to similar research programs in other U.S. universities?

	<u>MEAN</u>	<u>N</u>	<u>%</u>
Top 2% (4)	2.7	41	15
Top 10% (3)		117	42
Above average (2)		109	40
Below average (1)		9	3
Not comparable (9)		35	N/A

14. During the past year how satisfied were you with the following features of the Center?

	<u>MEAN</u>	A							
		<i>Completely Satisfied</i>		<i>Great Deal Satisfied</i>		<i>Somewhat Satisfied</i>		<i>Not at All Satisfied</i>	
		4	3	2	1	N	%	N	%
Technical quality of the research	3.0	68	21	196	62	52	16	3	1
Communication between Center staff and your company	3.0	95	30	149	47	67	21	7	2
Center administrative practices	3.0	97	31	142	45	68	22	7	2
Responsiveness of the Center to industry needs	2.9	75	24	146	46	82	26	15	5
Innovative quality of research	2.9	54	17	172	54	82	26	9	3
Proj. selection process	2.9	71	23	152	48	86	27	7	2

17. How important to you are the following goals and outcomes of the Center?

	MEAN	Extremely Important 4		Considerably Important 3		Somewhat Important 2		Not at all Important 1	
		N	%	N	%	N	%	N	%
Gen. expansion of knowledge in this tech. area	3.5	64	61	33	31	8	8	0	0
Enhancement of grad. student tech. training	2.7	20	19	41	39	37	35	7	7
Enhancement of grad. students' understanding of industry	2.9	27	26	44	42	27	26	7	7
Redirection of university res. towards indust. problems	3.3	48	46	39	37	16	15	2	2
Enhancement of quality of indust. research	3.2	45	43	40	38	15	14	5	5
Development of new company res. projects	2.7	22	21	41	39	28	27	13	13
Development of patentable products	1.9	5	5	13	12	50	48	37	35
Development of commercialized products	2.2	16	15	21	20	34	32	33	32

18. How long, on average, do you feel that it should take for a new Center research project to yield tangible results?

	N	MEAN	MEDIAN	SD
Number of months	302	22.9	24	14.1

19a. During the past year, approximately how many new research projects have been stimulated in your Division's research laboratories by Center activities?

NUMBER OF PROJECTS

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>
<i>entire sample</i>	281	1.0	1.0	1.2
<i>those responding at least 1</i>	149	1.9	2.0	1.1

b. RESEARCH DOLLARS (in thousands)

<i>entire sample</i>	262	121.2	0.0	385.2
<i>those responding at least 1</i>	128	247.4	100.0	523.0
<i>research dollars per project</i>	128	159.8	50	459.6

20a. During the past year, has participation in the Center activities stimulated additional research contracts with faculty?

	<u>N</u>	<u>%</u>
Yes	93	32
No	196	68

If yes, approximately how many research dollars (in thousands)?

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>
<i>entire sample</i>	112	86.4	17.5	475.1
<i>those responding "yes" to 20a</i>	76	127.3	35.5	574.1

b. During the past year, has participation in the Center activities stimulated research contracts with other laboratories or researchers?

	<u>N</u>	<u>%</u>
Yes	54	20
No	213	80

If yes, approximately how many research dollars (in thousands)?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
<i>entire sample</i>	262	20.4	0	91.8
<i>those responding "yes" to 20b</i>	42	108.4	50	169.2

21. During the past year, to what extent has the research conducted at the Center caused changes in the R&D projects in your company?

	<u>MEAN</u>	<i>A Lot</i> 4		<i>Some</i> 3		<i>A Little</i> 2		<i>Hardly Any</i> 1	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Research topics and issues	2.1	17	6	104	33	69	22	121	39
Research methods and procedures used	1.9	13	4	75	24	89	29	131	43
Criteria methods used to evaluate the research projects	1.6	10	3	39	13	70	23	286	61

23. What percentage of the Center research projects do you take interest in and monitor closely?

<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
312	40.5	32	26.6

24. During the past year, has your participation in the Center produced any of the following benefits to your company?

	<u>MEAN</u>	<i>Significant Effect</i> 3		<i>Moderate Effect</i> 2		<i>No Effect</i> 1	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Improvements in products and services	1.5	13	5	91	36	150	59
New products developed due to related efforts	1.3	13	5	52	22	174	73
Reduction of production costs	1.3	6	3	56	25	166	73
Improvements in processes and methods of production	1.5	18	8	81	35	136	58

(item 24 cont ->)

	MEAN	Significant Effect 3		Moderate Effect 2		No Effect 1	
		N	%	N	%	N	%
Better personnel recruit.	1.5	18	7	78	31	153	61
Improved abil. to cooperate with outside scientists	1.9	40	14	181	61	75	25
Increased interaction with other companies	2.0	74	25	153	51	71	24
Increased interaction with University faculty	2.1	85	27	184	59	43	14

25a. During the past year, how many students trained in the center research projects have been interviewed for possible employment in your company?

	<u>N</u>	<u>Mean</u>	<u>Median</u>	<u>SD</u>
entire sample	280	.73	0.0	2.0
those responding at least 1	78	2.6	2.0	3.0

b. How many have actually been hired?

entire sample	258	.22	0.0	.62
those interviewing at least 1	70	.86	1.0	1.1

26. During the past year, how many days have CENTER SCIENTISTS/ENGINEERS spent on-site visiting or working in your labs?

<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
302	5.4	1	20.3

27. During the past year, how many days have YOUR SCIENTISTS/ENGINEERS spent on-site visiting or working in your Center labs?

<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
307	7.0	3	20.4

28. Excluding Center board/monitor meetings, how many times during the past year did you personally have contact with faculty affiliated with the Center?

	<u>N</u>	<u>MEAN</u>	<u>MEDIAN</u>	<u>SD</u>
a. By phone	315	8.2	5	12.1
b. In person	303	3.2	2	7.9

29. What effect has your participation in the Center had on the following:

	<u>MEAN</u>	<i>Negative Effect</i>				<i>No Effect</i>				<i>Positive Effect</i>	
		<u>1</u>		<u>2</u>		<u>3</u>		<u>4</u>		<u>5</u>	
		<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Trust and confid. in the University	4.2	1	0	9	3	49	15	141	44	122	38
My evaluation of the quality of university research	4.1	1	0	9	3	58	18	159	49	95	30
Chances for career advancement, promotion and salary increases	3.2	2	1	6	2	254	80	44	14	12	4

30. To what extent are you generally satisfied with the operation and activities of the Center?

<u>MEAN</u>	<i>Completely Satisfied</i>		<i>Considerably Satisfied</i>		<i>Somewhat Satisfied</i>		<i>Not at all Satisfied</i>	
	<u>4</u>		<u>3</u>		<u>2</u>		<u>1</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
3.0	69	22	173	54	70	22	6	2

31. What's the likelihood your firm will renew its membership?

	<u>N</u>	<u>%</u>	<u>MEAN</u>
Almost certain	127	40	3.1
Very likely	106	33	
Uncertain	63	20	
Unlikely	21	7	

APPENDIX A

1991-92 DATA SET PARAMETERS
(TOTAL CASES: 257 faculty; 322 industry)

FACULTY SHORT (1 row of data per case; 49 columns total)

Row 1 only: 49 columns

Number of Variables: 31

Number of Cases: 157

FACULTY LONG (2 rows of data per case; 141 columns total)

Row 1: 75 columns

Row 2: 66 columns

Number of Variables: 101

Number of Cases: 100

INDUSTRY SHORT (2 rows of data per case; 92 columns total)

Row 1: 77 columns

Row 2: 15 columns

Number of Variables: 51

Number of Cases: 217

INDUSTRY LONG (2 rows of data per case; 105 columns total)

Row 1: 74 columns

Row 2: 41 columns

Number of Variables: 70

Number of Cases: 105