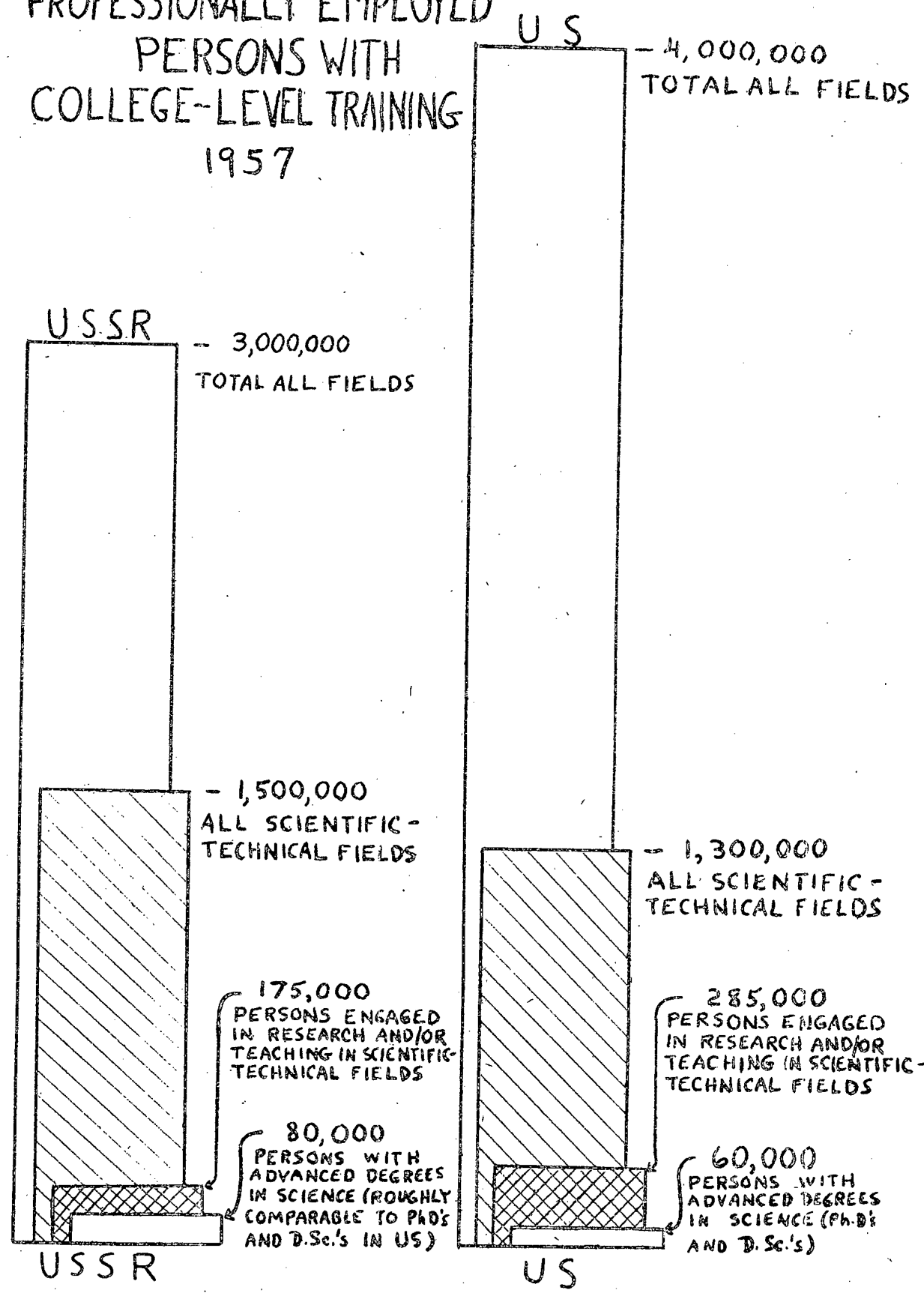
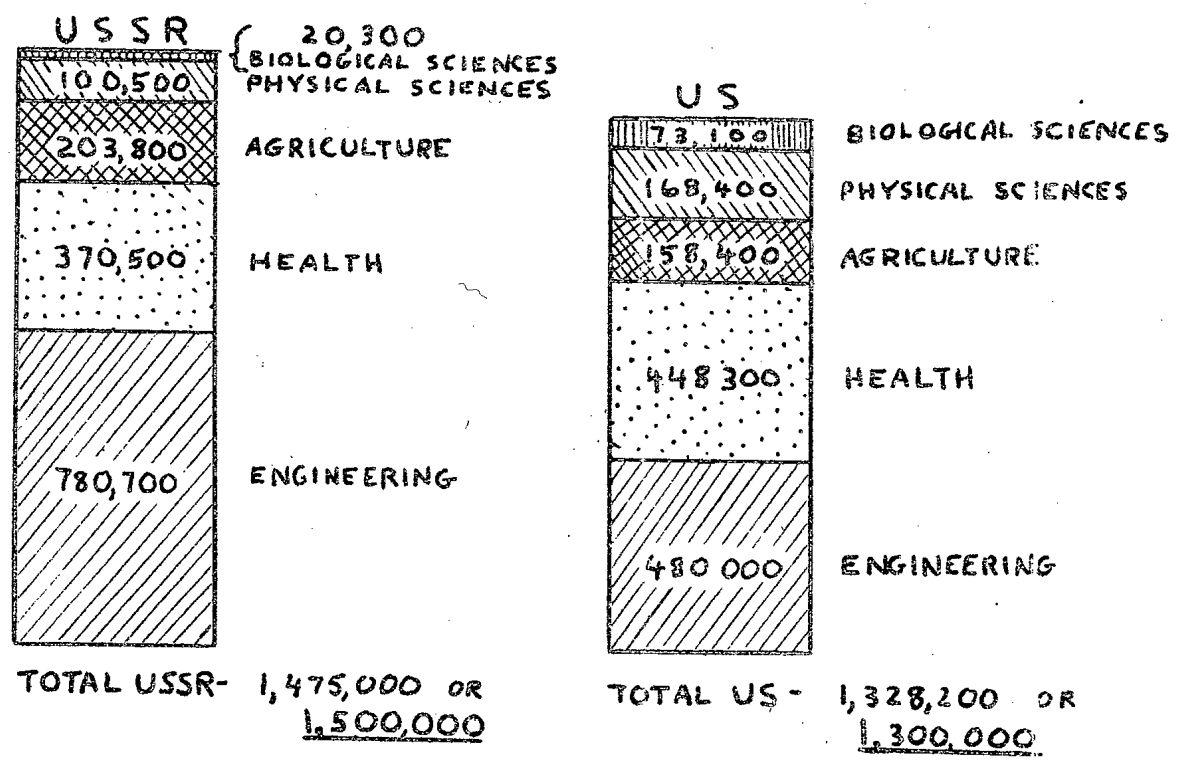


PROFESSIONALLY EMPLOYED PERSONS WITH COLLEGE-LEVEL TRAINING 1957



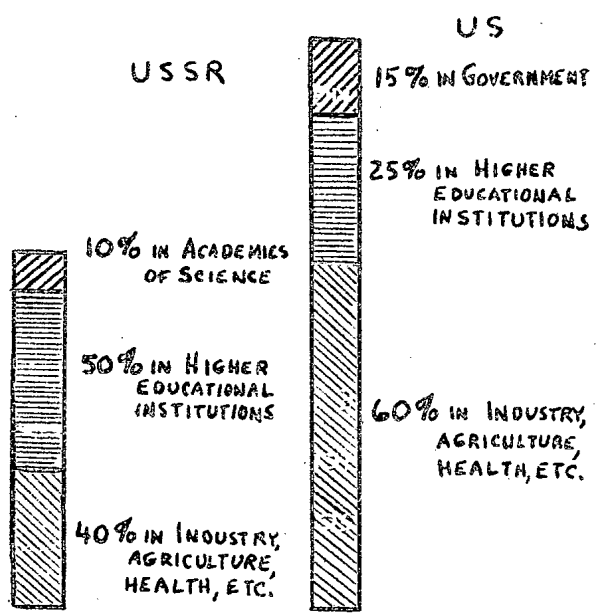
(APPROXIMATE)

PROFESSIONALLY EMPLOYED PERSONS WITH COLLEGE-LEVEL TRAINING IN SCIENTIFIC-TECHNICAL FIELDS

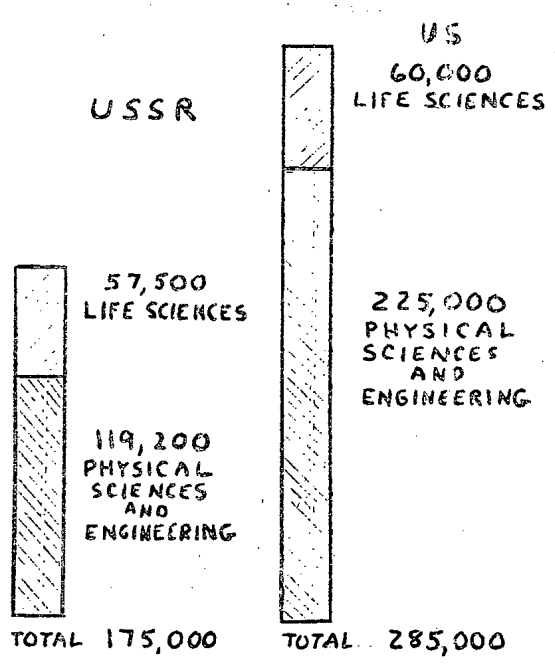


DISTRIBUTION OF PERSONS ENGAGED IN RESEARCH AND/OR TEACHING IN SCIENTIFIC-TECHNICAL FIELDS

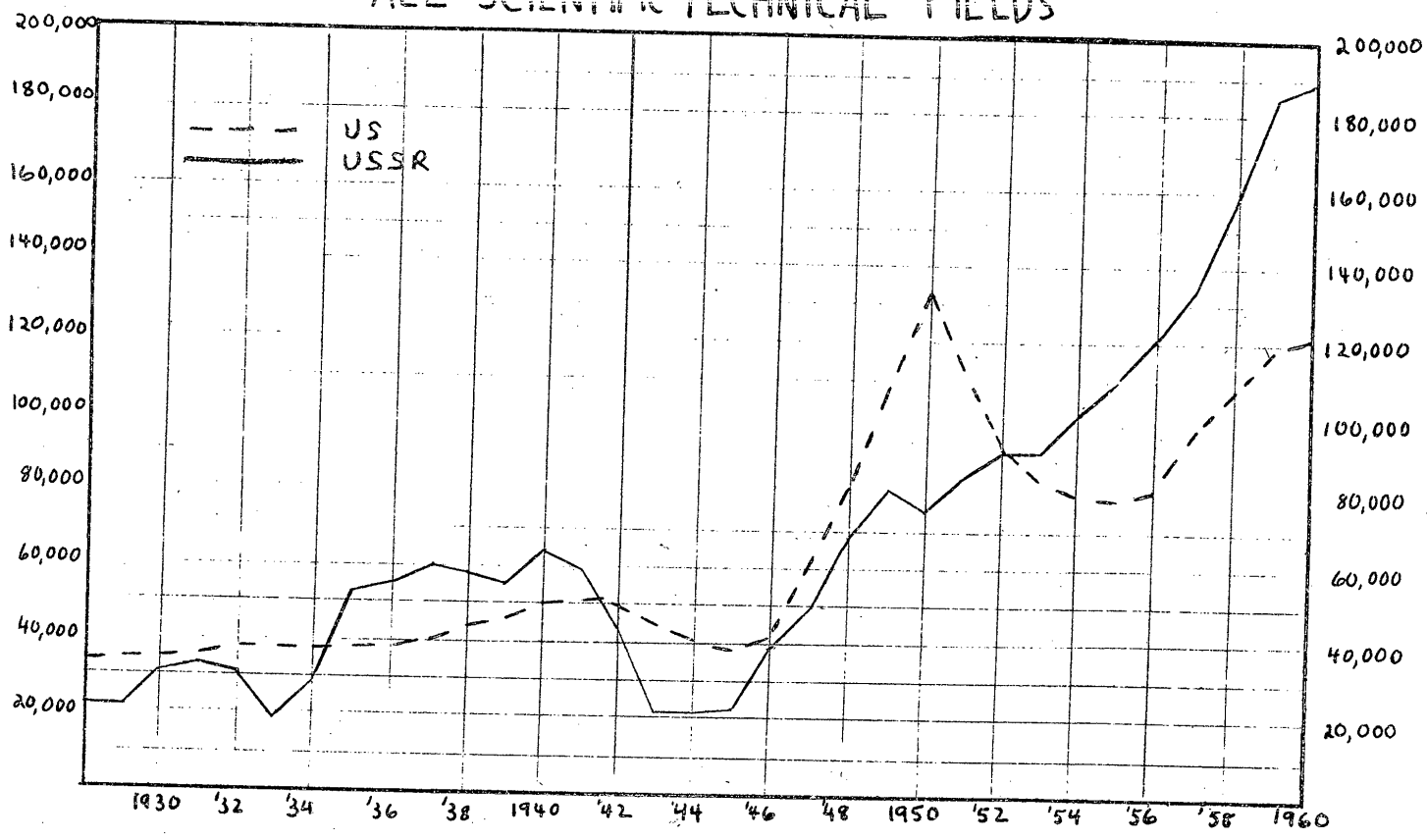
BY PLACE OF EMPLOYMENT:



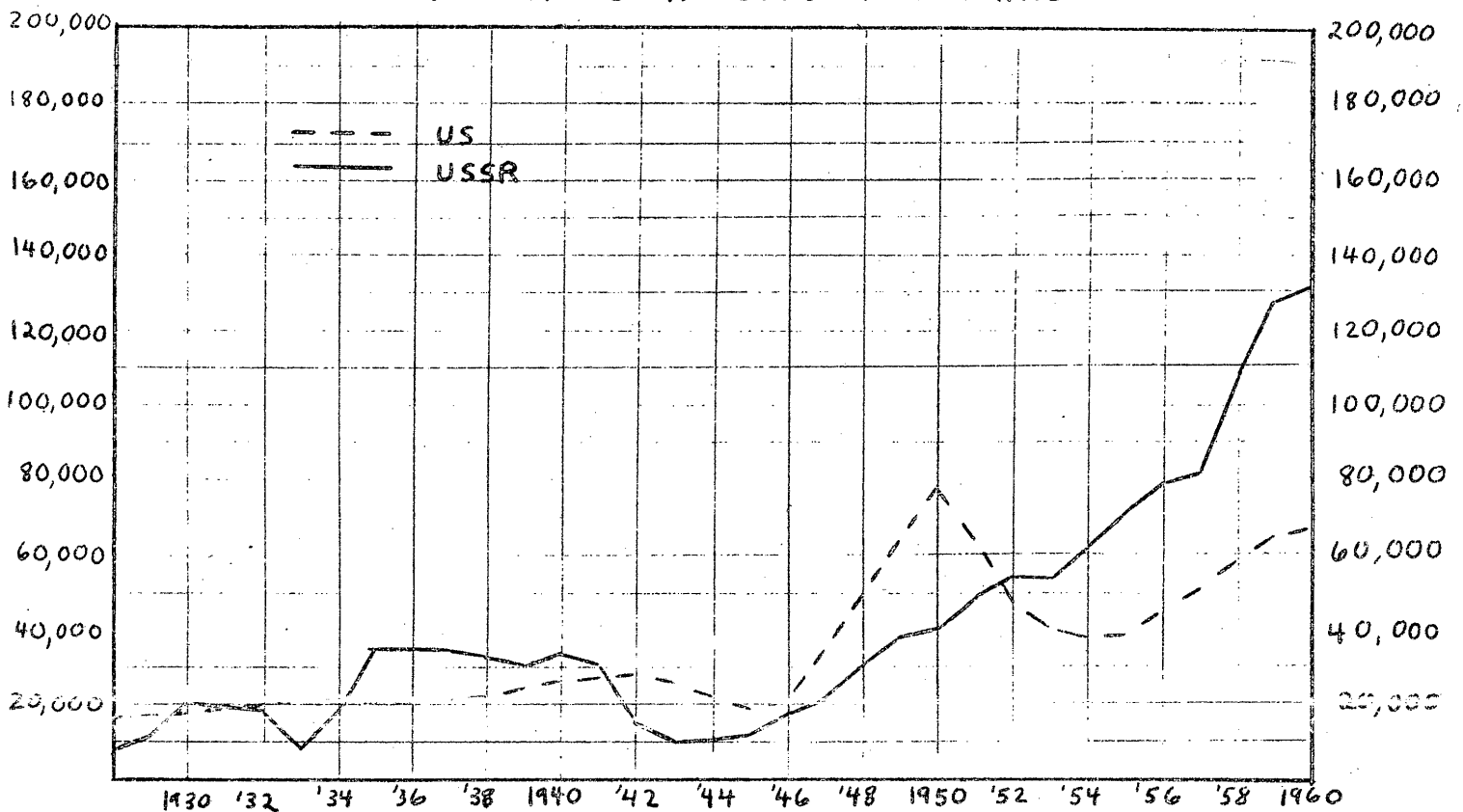
BY FIELD OF EMPLOYMENT:



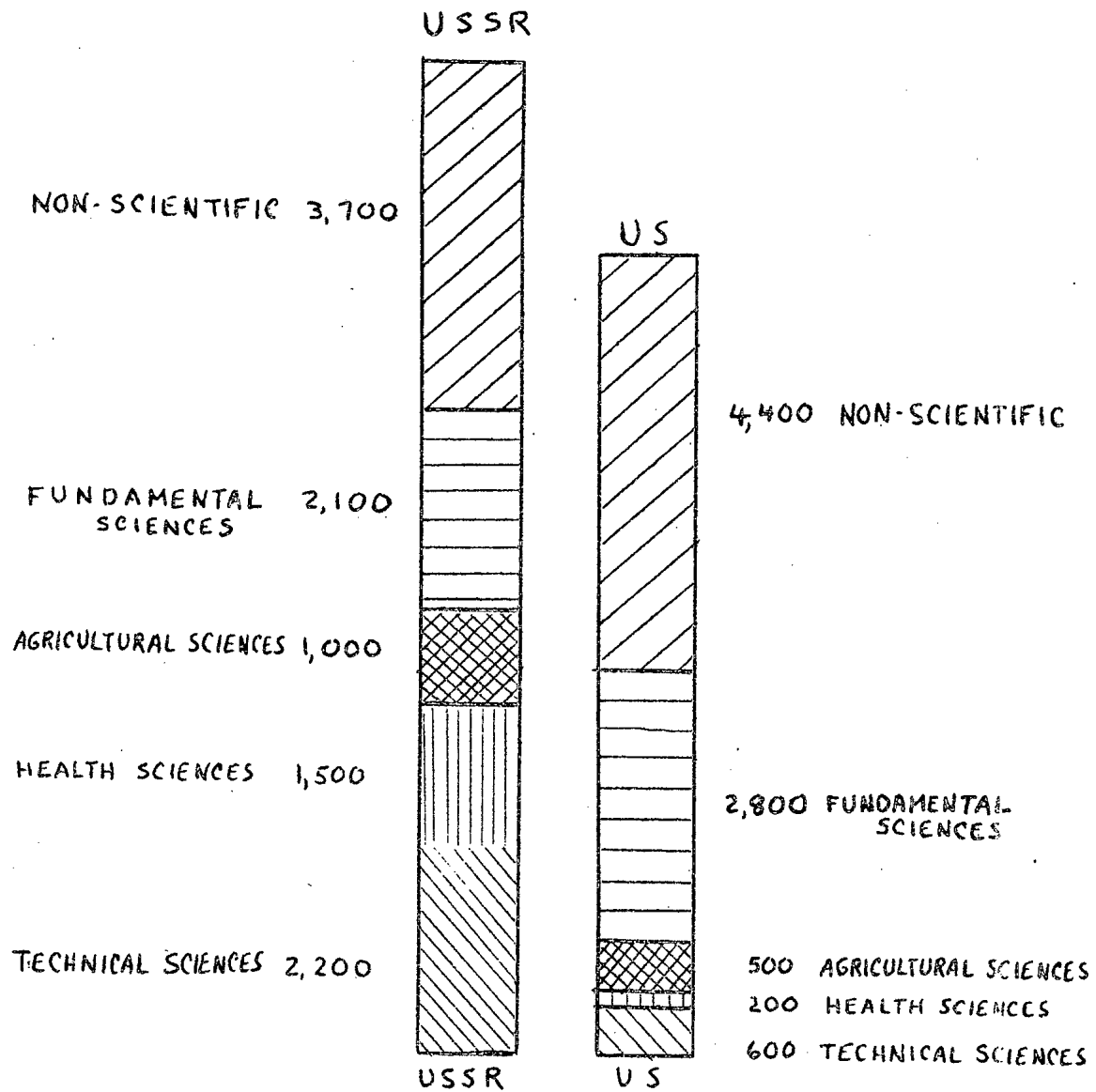
US AND USSR
ANNUAL COLLEGE-LEVEL GRADUATIONS
1928 - 1960
ALL SCIENTIFIC-TECHNICAL FIELDS



US AND USSR
ANNUAL COLLEGE-LEVEL GRADUATIONS
1928-1960
PHYSICAL SCIENCES AND ENGINEERING



INCREASE IN NUMBER OF PERSONS HOLDING ADVANCED DEGREES IN USSR AND US DURING 1957



TOTAL USSR - 10,500

TOTAL US 8,500

USSR FIGURES INCLUDE DEGREES OF KANDIDAT (VERY ROUGHLY EQUIVALENT TO PH.D. IN US) AND DOKTOR (FOR WHICH THERE IS NO US COUNTERPART)

US FIGURES INCLUDE DEGREES OF PH.D., D. SC., ED. D., ETC.

(APPROXIMATE)

**PORTION OF GROSS NATIONAL PRODUCT DEVOTED
TO SCIENTIFIC RESEARCH AND DEVELOPMENT IN THE US AND USSR**

From very limited data available from the USSR it appears that the USSR is spending more than 2 percent of its gross national product on scientific research and development. Although the gross national product of the Soviet economy is only a little more than a third that of the United States, their expenditures on scientific research and development are more than half as great. This means that, although the Soviet scientific effort is smaller than ours, it receives a proportionately larger share of the country's total output. Furthermore, a sharp rise in scientific research expenditures announced during the last few years shows that this share is increasing.

USSR
1928 - 1960
(Thousands)

	Recapitulation of Scientific-Technical Graduations												
	Total all Fields	Engineering ¹	Agriculture ²	Health	Physical Sciences ³	Biological Sciences	Non-Scientific Technical Fields	By Types					Life Sciences
								All Technical Fields	Applied Sciences	Funda- mental sciences	Physical Sciences and Engineering		
1928	28.7	8.44	6.36	6.21	.46	.14	7.09	21.61	21.01	.60	8.90	12.71	
29	32.5	10.09	6.73	3.87	.49	.14	11.18	21.32	20.69	.63	10.58	10.74	
30	43.9	19.51	6.58	4.36	.63	.18	12.64	31.26	30.45	.81	20.14	11.32	
31	50.4	17.67	8.43	6.46	1.00	.29	16.55	33.85	32.56	1.29	18.67	15.18	
32	43.2	16.15	8.41	4.34	.88	.25	13.17	30.03	28.90	1.13	17.03	13.00	
33	34.6	7.60	4.75	4.59	.90	.25	16.51	18.09	16.94	1.15	8.50	9.59	
34	49.2	18.26	6.30	2.52	.68	.19	21.25	27.95	27.08	.87	18.94	9.01	
35	83.7	35.77	8.78	7.54	1.07	.29	30.25	53.45	52.09	1.36	36.84	16.61	
36	97.6	34.22	10.39	9.26	1.84	.49	41.40	56.20	53.87	2.33	36.06	20.14	
37	104.8	33.61	11.40	12.51	2.70	.71	43.87	60.93	57.52	3.41	36.31	24.62	
38	103.8	30.25	10.29	13.12	3.13	.81	46.20	57.60	53.66	3.94	33.38	24.22	
39	98.3	27.60	10.77	13.89	3.25	.63	41.96	56.34	52.86	4.08	30.85	25.49	
40	126.0	29.51	10.53	17.78	5.19	1.30	61.69	64.31	57.82	6.49	34.70	29.61	
41	109.9	27.67	8.30	18.11	4.19	1.03	50.60	59.30	54.08	5.22	31.86	27.44	
42	71.6	13.36	6.38	21.35	2.21	.53	27.77	43.83	41.09	2.74	15.57	28.26	
43	28.6	9.57	1.94	9.45	.51	.12	7.01	21.59	20.96	.63	10.08	11.51	
44	37.3	9.22	2.38	8.09	1.32	.31	15.98	21.32	19.69	1.63	10.54	10.78	
45	54.6	9.65	2.94	6.88	2.64	.60	31.89	22.71	19.47	3.24	12.29	10.42	
46	76.0	11.68	5.25	11.91	2.90	.64	37.62	38.38	34.84	3.54	17.58	20.80	
47	98.5	18.94	6.81	19.44	3.73	.81	48.77	49.73	45.19	4.54	22.67	27.06	
48	138.0	26.62	9.54	27.14	5.17	1.11	68.42	69.58	63.30	6.28	31.79	37.79	
49	162.6	31.50	11.25	31.89	6.02	1.26	80.68	81.92	74.64	7.28	37.52	44.40	
50	176.9	34.33	12.86	20.75	7.40	1.51	100.05	76.85	67.94	8.91	41.73	35.12	
51	201.4	41.26	15.08	17.39	8.72	1.73	117.22	84.18	73.73	10.45	49.98	34.20	
52	219.2	45.44	16.42	18.81	9.39	1.81	127.63	91.57	80.37	11.20	54.53	37.04	
53	220.2	45.61	16.52	18.77	9.32	1.75	128.23	91.97	80.90	11.07	54.93	37.04	
54	234.8	53.55	20.47	17.75	9.26	1.69	132.08	102.72	91.77	10.95	62.81	39.91	
55	245.8	63.79	25.56	16.94	9.00	1.59	129.92	115.88	105.29	10.59	72.79	43.09	
56	260.0	68.79	24.58	17.53	9.76	1.68	137.66	122.34	110.90	11.44	78.55	43.79	
57	270.0	72.36	27.39	22.72	10.01	1.66	135.86	134.44	122.47	11.67	82.37	51.77	
58	293.9	96.89	30.63	19.45	10.25	1.65	135.03	158.87	146.97	11.90	107.14	51.73	
59	327.4	117.35	35.17	21.01	10.49	1.62	141.96	185.44	173.33	12.11	127.64	57.80	
60	315.0	119.76	36.32	21.31	10.72	1.60	125.29	189.71	177.39	12.32	130.48	59.23	

1 - Including hydrology, meteorology, geodesy, and cartography

2 - Including veterinary medicine

3 - Including mathematics and geography

7 November 1957

US
1928 - 1960
(Thousands)

	Recapitulation of scientific-technical graduations											
	Total all Fields	Engineering ¹	Agriculture	Health ²	Physical Sciences ³	Biological Sciences	Non-scientific Technical Fields	All				
								Scientific Technical Fields	Applied Sciences	Funda-mental Sciences	Physical Sciences and Engineering	Life Sciences
1928	111.16	7.90	2.04	10.32	9.26	4.37	77.27	33.89	20.26	13.63	17.16	16.73
29	116.68	7.80	2.15	10.12	9.49	4.70	82.42	34.26	20.07	14.19	17.29	16.97
30	122.48	7.70	2.25	9.86	9.78	5.07	87.82	34.66	19.81	14.85	17.48	17.18
31	130.04	9.20	2.44	10.14	9.59	4.94	93.73	36.31	21.78	14.53	18.79	17.52
32	138.06	10.70	2.64	10.45	9.72	4.98	99.57	38.49	23.79	14.70	20.42	18.07
33	137.95	11.30	2.60	9.55	9.38	4.77	100.35	37.60	23.45	14.15	20.68	16.92
34	137.84	12.00	2.56	8.84	9.16	4.66	100.62	37.22	23.40	13.82	21.16	16.06
35	140.90	11.60	2.73	9.14	9.42	4.71	103.30	37.60	23.47	14.13	21.02	16.58
36	143.12	11.80	2.91	9.55	9.99	5.01	104.46	38.66	23.66	15.00	21.19	17.47
37	154.45	11.40	3.86	9.90	10.76	5.41	113.12	41.33	25.16	16.17	22.16	19.17
38	164.94	11.60	4.82	9.97	11.81	5.94	120.80	44.14	26.39	17.75	23.41	20.73
39	175.72	13.30	5.52	10.16	12.17	6.14	128.43	47.29	28.98	18.31	25.47	21.82
40	186.50	15.10	6.23	10.46	12.52	6.32	135.87	50.63	31.79	18.84	27.62	23.01
41	185.92	15.20	5.92	10.87	12.76	6.44	134.73	51.19	31.99	19.20	27.96	23.23
42	185.35	16.00	5.58	10.97	12.90	6.52	133.38	51.97	32.55	19.42	28.90	23.07
43	151.69	15.90	2.86	11.15	11.00	5.56	105.82	45.87	29.31	16.56	26.30	19.57
44	125.88	13.50	1.25	11.98	9.46	4.78	84.91	40.97	26.73	14.24	22.96	18.01
45	131.02	8.50	1.65	12.83	10.14	5.65	92.25	38.77	22.98	15.79	18.64	20.13
46	136.17	11.50	1.73	13.63	9.70	5.98	93.63	42.54	26.86	15.68	21.20	21.34
47	203.30	21.00	4.13	15.48	13.68	9.34	139.67	63.63	40.61	23.02	34.68	28.95
48	272.36	31.10	6.84	16.21	16.89	11.51	189.81	82.55	54.15	28.40	47.99	34.56
49	366.63	43.60	10.31	17.97	20.74	16.45	257.56	109.07	71.88	37.19	64.34	44.73
50	433.73	52.41	15.00	20.62	25.88	19.98	299.84	133.89	88.03	45.86	78.29	55.60
51	384.35	41.63	12.16	20.33	21.66	17.22	271.35	113.00	74.12	38.88	63.29	49.71
52	331.92	30.75	9.60	20.21	17.25	14.94	239.17	92.75	60.56	32.19	48.00	44.75
53	304.83	25.82	8.84	20.56	15.49	13.24	220.88	83.95	55.22	28.73	41.31	42.64
54	292.88	24.17	7.83	23.62	14.68	9.37	213.21	79.67	55.62	24.05	38.85	40.82
55	287.40	24.22	7.17	23.31	15.18	9.05	208.47	78.93	54.70	24.23	39.40	39.53
56	311.30	28.06	7.29	22.25	16.98	7.90	228.82	82.48	57.60	24.88	45.04	37.44
57	347.	33.97	7.44	28.49	18.77	8.71	249.62	97.38	69.90	27.48	52.74	44.64
58	392.	36.93	7.95	32.30	21.60	9.39	283.83	108.17	77.18	30.99	58.53	49.64
59	421.	40.88	8.45	34.90	23.28	10.06	303.43	117.57	84.23	33.34	64.16	53.41
60	437.	42.39	8.95	36.49	24.21	10.74	314.22	122.78	87.83	34.95	66.60	56.18

1 - Including military and naval science

2 - Including veterinary medicine

3 - Including mathematics and geography

7 November 1957

	Professionally Employed Persons with College-Level Training, by Field of Employment (Thousands)				Research-Teaching Personnel, ⁷ by Field of Competence (Thousands)		Holders of Advanced Degrees, ⁸ by Field of Training (Thousands)	
	Mid - 1957		Mid - 1960		Mid - 1957		Mid - 1957	
	USSR	US	USSR	US	USSR	US	USSR	US
Total All Fields	2855.2	4085.2	3514.9	na	250.2	na	104.5	123.2
Engineering ¹	780.7	460.	1037.1	547.9	68.3	na	26.9	5.7
Health ²	370.5	448.3	398.2	499.4	28.3	na	17.6	1.3
Agriculture ³	203.8	158.4	285.2	170.6	16.9	na	8.3	4.9
Physical sciences ⁴	100.5	168.4	122.3	217.8	50.9	na	18.1	32.3
Biological sciences	20.3	73.1	23.2	94.9	12.3	na	7.6	16.9
Non-scientific fields ⁵	1379.4	2757.0	1648.9	na	73.5	na	26.0	62.1
Recapitulation								
All scientific fields ⁶	1475.8	1328.2	1866.0	1530.6	176.7	285	78.5	61.1
Distribution by type								
Applied sciences ¹	1355.0	1086.7	1720.5	1217.9	113.5	na	52.8	11.9
Fundamental sciences ⁴	120.8	241.5	145.5	312.7	63.2	na	25.7	49.2
Distribution by field								
Physical sciences and engineering	881.2	648.4	1159.4	765.7	119.2	225	45.0	38.0
Life sciences	594.6	679.8	706.6	764.9	52.5	60	33.5	23.1

^{1a} No estimate made.

³ Including meteorology. Soviet figures include hydrology, geodesy, and cartography.
US figures include military and naval science.

² Excluding veterinary medicine.

³ Including veterinary medicine.

⁴ Including mathematics and geography, excluding meteorology. Soviet figures exclude hydrology, geodesy, and cartography.

⁵ US figures include psychology and "sciences without major".

⁶ US figures exclude psychology and "sciences without major".

⁷ Persons teaching in higher educational institutions or engaged in research and development.

⁸ Soviet: Kandidat and Doktor degrees; U.S.: Ph.D., D.Sc., etc., excluding Master-level degrees.

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