## THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

## AFFILIATED ACADEMIES OF SCIENCE

THE American Association for the Advancement of Science fulfills its function as an integrating agency in science to a large extent through its affiliated and associated societies. At present there are 179 of these societies, the total membership of which, including duplicates, is nearly 1,000,000. Such organizations as the American Medical Association and the National Education Association have very large numbers of members.

Among the affiliated societies, the academies of science constitute a special class. As a rule their interests include all the natural sciences, and consequently they serve also as integrating agencies in their respective territories, which are usually states. For this reason the association extends to the affiliated academies every possible assistance, including allowances for the aid of research, the amounts depending on the numbers of their members who are also members of the association. In many cases the association can more effectively advance science through its affiliated academies than directly.

The membership of an academy of science is at least a rough measure of the scientific activity in its territory, for it draws its members from the colleges, secondary schools, industrial laboratories and amateurs. In turn the academy not only affects the science in the educational institutions in its territory, but it influences the scientific activities of state and local governments, and often plays important rôles in problems of utilization and conservation of natural resources and in problems of public health.

Certain statistics for the 33 academies affiliated with the association will now be presented. These statistics should not be given undue weight because the conditions under which the academies operate vary to an appreciable degree; yet they are indicative of the scientific activities in the territories to which they pertain. Another item of significance is the percentage of the members of an academy who are members of the association. Naturally the membership of an academy depends upon the total population of

# SPECIAL ARTICLES

## A CASEIN DIGEST BY VEIN UTILIZED TO FORM BLOOD PLASMA PROTEIN1

To be able to feed an individual by other than the oral route has been the desire of investigators and medical men for many years. Many patients could be benefited and many experiments could be performed

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the territory from which it is drawn. In order to reduce the membership figures to a comparable basis in respect to population, the number of members per 100,000 of total population are presented. It will be seen from Table 1 that the variations in the numbers

TABLE I MEMBERSHIP OF AFFILIATED ACADEMIES

Academy	(a)	(b)	(c)	(d)	(e)
Alabama	133	293	120.3	10.4	20.1
American Institute		510			24.0
British Columbia		97			15.5
Colorado-Wyoming	238	290	21.8	21.1	30.5
Florida	220	346	57.3	18.2	23.1
Georgia	106	122	15.1	3.9	41.8
Illinois	1.094	1,151	5.2	14.6	31.5
Indiana	888	1,051	18.4	30.7	26.1
Iowa	624	614	- 1.6	24.2	39.4
Kansas	334	611	83.5	34.0	23.5
Kentucky	237	333	40.5	11.7	26.1
Louisiana	186	192	8.1	8.1	20.8
New Orleans	249	297	19.3	60.0	26.3
La. and New Orl	435	489	12.4	20.7	23.9
Maryland		38		2.1	71.1
Michigan	1.055	1,034	- 2.0	19.7	27.0
Minnesota	<b>´40</b> 9	681	66.5	24.4	32.3
Mississippi		113		5.2	10.6
Missouri	820	752	- 8.3	19.9	22.3
St. Louis	118	409	246.6	50.1	25.2
Mo. and St. L	938	1.161	23.8	25.2	23.3
Nebraska	198	287	<b>44.9</b>	21.8	31.4
New Hampshire	145	212	46.2	43.1	25.0
North Carolina	223	335	50.2	9.4	41.2
North Dakota					• • •
N. W. Sci. Assn		528		• • •	15.7
Ohio	462	678	46.7	9.8	51.2
Oklahoma	365	313	-14.2	13.4	25.9
Pennsylvania	452	424	- 6.2	42.8	39.9
South Carolina	225	187	-16.9	9.8	27.3
Tennessee	349	418	19.8	14.3	26.3
Texas	<b>475</b>	651	37.1	10.1	30.9
Virginia	686	855	24.6	31.9	25.4
West Virginia	254	305	20.1	16.0	23.0
Wisconsin	375	322	- 14.1	10.3	55.7

(a) Number of members in 1936 as reported by the secre-(a) Number of members in 1960 as reported by the secre-(b) Number of members in 1940 as reported by the secretaries of the academies.

(c) Percentage change. (d) Members in 1940 per 100,000 population of state or area (e) Percentage of members in 1940 who are members of the Association

of members relative to populations are very large. Likewise the rates at which the memberships of the academies changed in the interval 1936-1940 have varied widely.

> F. R. MOULTON, Permanent Secretary

if such a technique were available. One difficulty has been the parenteral administration of the protein requirements. Henriques and Anderson<sup>2</sup> achieved first success with an enzymatic digest of meat. Holman, Mahoney and Whipple<sup>3</sup> found that the protein of

<sup>2</sup> V. Henriques and A. C. Anderson, Zeit. f. Physiol. Chem., 88: 357, 1913.

3 R. L. Holman, E. B. Mahoney and G. H. Whipple, Jour. Exp. Med., 59: 269, 1934.