are more than two standard deviations above the national means on both the verbal and numerical subtests. More than 99 percent of the subjects scored higher than one standard deviation above the means for the two sub-

Hollingworth and M. M. Rust, J.

5. L. S. Hollingworth and M. M. Kust, J. Psychol. 4, 287 (1937).
6. H. O. Barrett, Personnel and Guidance J. 36, 192 (1957); W. D. Lewis, J. Genet. Psychol. 62, 301 (1943).
7. G. E. Lichtfeet, Teacher Cally Conf. 7

Psychol. 62, 301 (1943).
G. F. Lightfoot, Teachers College Contrib. Educ. No. 969 (1951).
C. G. Wrenn, L. W. Ferguson, J. L. Kennedy, J. Social Psychol. 7, 301 (1936).
P. F. Brandwein, Gifted Student as Future Scientist (Harcourt-Brace, New York, 1955).
J. B. Zeaman, Dissertation Abstr. 18, 290 (1958).

11. J. L. Holland and R. C. Stalnaker, National Assn. Secondary School Principals Bull. 42, 9 (1958). 12. J. W. Getzels and P. W. Jackson, Phi Delta

J. W. Getzels and P. W. Jackson, Phi Delta Kappan 40, 75 (1958).
 P. A. Heist and P. A. Williams, "Manual for the Omnibus Personality Inventory" (Center for the Study of Higher Education, Univ. of California, Berkeley, 1957).
 G. W. Allport, P. E. Vernon, G. Lindzey, Study of Values: A Scale for Measuring the Dominant Interests in Personality (Houghton Mifflin, Cambridge, Mass., 1951).

15. John Darley and Martin Weissman originally assembled this omnibus inventory explicitly for use in research on students of superior

16. C. Evans and T. R. McConnell, J. Psychol. 12, 111 (1941).
17. F. Barron, J. Abnormal Social Psychol. 48,

163 (1953)

18. —, *ibid.* 51, 478 (1955).
19. H. G. Gough, H. McCloskey, P. Meehl, *ibid.* 47, 73 (1952).

Barron, J. Consult. Psychol. 17, 327 (1953

(1953).
21. T. W. Adorno, E. Frenkel-Brunswik, O. J. Levinson, R. N. Sanford, The Authoritarian Personality (Harper, New York, 1950).
22. R. N. Sanford, H. Webster, M. Freedman, "Impulse Expression as a Variable of Personality" (Vassar College, Poughkeepsie, N.Y., 1956).

23. L. E. Drake and W. B. Thiele, J. Educ. Re-

search 41, 551 (1948)

24. S. R. Hathaway and J. C. McKinley, Minnesota Multiphasic Personality Inventory Manual The Psychological Corp., New York, rev. ed.,

Correlations between a few Omnibus Personality Inventory and Allport-Vernon-Lindzey scales are moderately high, but not to the point of curtailing the usefulness of the latter n adding to a description of gifted students.
The Thinking Introversion scale, for example, correlates with the Allport-Vernon-Lind-zey Economic scale from -0.4 to -0.6 for subgroups of National Merit Scholarship stu-

nts in various fields of study.

Correlations of the Thinking Introversion with the Allport-Vernon-Lindzey Theoretical scale (two scales which may seem to be conceptually related) are low for the men of the sample, varying from 0.1 to 0.2. For the correlations between the same two scales are around 0.4. Correlations between the Complexity and the Allport-Vernontween the Complexity and the Allport-Vernon-Lindzey Aesthetic scale, for both sexes, ap-proximate a value of 0.4. Intercorrelations for other scales on these two inventories are below 0.3. Both personality inventories are only minimally related to scholastic aptitude in terms of correlations for the sample studied. Correlations with Scholastic Aptitude Test—M uniformly approximate zero. A correlations with Scholastic Aptitude Testare of the order of 0.2, most of them also approximating zero.

I. J. Lehman and S. O. Ikenberry,

liminary Report: Critical Thinking, Attitudes, and Values in Higher Education (Michigan

State Univ., East Lansing, 1959).
G. Hildreth, Educating Gifted Children at Hunter College Elementary School (Harper, New York, 1952).

28. T. R. McConnell and P. A. Heist, College

and University 34, 442 (1959)

Science in the News

The Republican Convention: Nixon's "Progressive Conservatism" More Progressive than Conservative

The Republican convention, like the Democratic, reflected the emergence of science and technology in national politics. Like the Democrats, the Republicans, for the first time, wrote into the party platform a pledge of continuing federal support for scientific research. Again the important news is not in the platform promises or in the routine references to the importance of science which appeared in so many of the speeches, but in the attitude of the candidate. And Nixon's attitude, like Kennedy's, is that the federal government should be spending more money on science and much more on programs to produce more well-trained scientists.

There are sharp differences between the two men, but in the areas of science and particularly education there is at least a basic common agreement. The agreement stems, if from nothing else, from the strong awareness of both men of the emergence of science as a major component of a nation's power and prestige, and the consequent aware-

ness not only of the importance of federal support of science, but of federal support of programs to develop scientific talent. Nixon has gone out of his way to make it as clear as he can, short of outright criticism of Eisenhower, that he believes that, particularly in the area of programs affecting national security, the Eisenhower administration has tended to think too much in terms of how much we can cut the budget and not enough of how much we should be doing. And as noted above, Nixon, like Kennedy, has recognized science and education as areas with a direct effect on national security.

Nixon, so far at least, seems to be thinking of expanded research in more limited terms than Kennedy: he is inclined, by his personal beliefs and by his commitments as a Republican candidate, to think of spending less than the Democrats, and he seems to be concentrating his attention, more than Kennedy, on programs of obvious practical value, particularly defense research and development and the space program with its important propaganda value.

On education, again reflecting his

personal and his party inclination to keep the role of the federal government smaller than Kennedy and the Democrats would be inclined to do, Nixon would spend less over-all than Kennedy, and again would tend to concentrate on areas of special importance in the area of national security. He would spend more than Kennedy, proportionately, on support for the gifted student as opposed to the average student; more, again proportionately, on aid at the college and post-graduate levels as opposed to aid to the public school systems.

In absolute terms, he may well be inclined to spend as much, or nearly as much, money as Kennedy on aid to the most promising students, but it is probably politically impossible to do a great deal for the gifted student while ignoring the average student. A big aid program for scientific education therefore implies at least a moderately big program of general aid to education.

Nixon vigorously supports federal aid to school construction, but not aid for teachers' salaries, although he has hedged a little on this by saying he is opposed to "direct" aid to salaries, which seems to leave open the possibility of indirect aid. Like Kennedy, he supports a greatly expanded federal student loan and scholarship program, and expansion of programs to help colleges build not only dormitories, as presently authorized, but laboratories and other non-revenue-producing buildings as well. On the other hand, he rejects the Democrats' belief that the federal government should accept continuing responsibility for the public

school system. He says that the responsibility is and should be with local government, that the federal government should back only limited term programs—to meet, for example, the present classroom shortage—and that this aid should be distributed primarily on the basis of need.

Whatever Kennedy's private feelings, as the Democratic candidate he is obligated to support both a very big program and a program that pays a good deal of attention to general social welfare. Like Kennedy, Nixon has certain party commitments, and as a Republican the most important of these is to avoid a very fast rise in the level of federal spending. This means that Nixon would probably be unable, although perhaps not unwilling, to back as big education and scientific research programs as the Democrats. But with all this, the difference between Nixon and Kennedy is probably less in the fields of education and science than in most other areas.

Nixon's Staff

Nixon's staff, like Kennedy's, tends to be made up of younger men with some of the key figures in their thirties, hardly anyone in his fifties. Like Kennedy's people, those concerned with policy are plainly well educated and smart. There are fewer professors than are closely associated with Kennedy, and the lawyers, who tend to make up the hard core of most political staffs, are more likely to be from Wall Street than from the faculty of Harvard Law School. But the contrast between Nixon and Eisenhower is sharper than that between Nixon and Kennedy.

There is comparatively little representation in the group around Nixon of the corporation presidents and board chairmen that Eisenhower has always chosen as his closest companions. There are many more, whether from the universities or outside, who might properly be tagged intellectuals. His full-time staff includes two professors of government (Charles Lichenstein of Notre Dame and George Grassmuck of Michigan) and Stanley McCaffery, vice president of the University of California. But there is no Nixon brain trust in the sense that there is a Kennedy brain trust: there is no one in Nixon's circle who gives the impression of having as strong a say on policy matters as some of Kennedy's associates, such as Archibald Cox on labor and J. Kenneth Galbraith on over-all economic policy.

Nixon and the Presidency

There is the clear assumption in both the Kennedy and the Nixon camps that the next president, whoever it is, must be a far more active, vigorous leader than Eisenhower has been. Both share the view, held by almost everyone in Washington, including at least some of the members of Eisenhower's own staff, that the most obvious shortcoming of the Eisenhower administration has been the lack of vigorous leadership at the presidential level.

Yet Nixon's conception of active presidential leadership contrasts sharply with Kennedy's (and with Rockefeller's). Like the absence in his organization of the sort of brain trust associated with Kennedy or Rockefeller, his conception of the presidency presumably reflects the Vice President's basic attitudes.

Kennedy and Rockefeller, both admirers of Franklin Roosevelt, see the presidency as the place of national leadership: that is, as an office which can be used to alter substantially the outlook and attitudes of American society. Nixon's attitude appears to be quite different. He does not, like Kennedy or Rockefeller, feel the need for something like another New Deal. The weaknesses he sees in the Eisenhower administration seem to be less a matter of its pursuing wrong basic policies than of its failure to push its generally correct policies with sufficient vigor. He sees the role of the presidency more in terms of vigorous leadership within his administration and within his party than Kennedy and Rockefeller do. Although unquestionably a representative of the liberal wing of his party, Nixon is a conservative by contrast with Kennedy or Rockefeller. He is a man ready to spend more money than Eisenhower, and he is less concerned with a balanced budget. But he is in no rush to introduce a wave of big new programs especially if, as such programs usually do, they add up to a really substantial increase in the federal budget and require substantial tax increases.

This attitude suggests why there is no Nixon brain trust: His self-described position as a "progressive conservative" is, by the standards of his party, much more progressive than conservative. But he remains a man, so far as he has allowed his feelings to be known, who seems basically satisfied with present policies, or with an expansion and development of present policies. He does not feel a great need to put people to

work as a brain trust to think up new programs he does not believe are necessary, or to develop proposals for greatly expanding the influence of the federal government, which he would oppose as an undesirable trend. He quite naturally, as noted above, sees the need for a man in the presidency who can work within his party and his administration for a more vigorous prosecution of accepted policies rather than the need Kennedy sees for a broader appeal to win support for policies which are new, not accepted, and indeed certain to encounter violent opposition.

Nixon and the Intellectuals

Nixon's relationship with the academic world is affected, of course, by the simple fact that the bulk of the academic people who would be most useful in the campaign are cut off from him. One of the best known intellectual figures associated with the Eisenhower administration estimates that at least 80 percent or more of the country's better known historians and economists are Democrats. The proportion of Democrats among the best known law professors and scientists is probably lower, but not too far behind. The fields in which the Republicans command the bulk of the academic support, notably among the faculties of engineering and business schools, are fields which are less pertinent to the needs of a candidate for policy advisers and speech

Yet Nixon's academic support is far from insignificant. Next week the organization of a committee of intellectuals for Nixon will be announced. probably to be headed by Arthur F. Burns, president of the National Bureau of Economic Research and Eisenhower's former economic adviser; Lon Fuller, under whom Nixon studied at the Duke University Law School and now professor of jurisprudence at Harvard Law School; and George Berry, dean of the Harvard School of Medicine. Others closely associated with Nixon are William Yandell Elliott, chairman of the Harvard department of government, who accompanied Nixon on his trip to Russia; physicist Joseph Kaplan of UCLA, who was chairman of the International Geophysical Year program, an adviser in scientific matters; and Raymond Saulnier, chairman of the Council of Economic Advisers, But, impressive as this partial list may be, it defines a comparatively small group compared with the long list of nationally known academic figures who have publicly associated themselves with the Democrats.

The Republicans, naturally, would like to avoid the impression that all the brains of the country are for the Democrats. In 1956 they organized CASE, the Committee of the Arts and Sciences for Eisenhower, but its list of names tended to be dominated, so far as publicity value was concerned, by Irene Dunne and Adolph Menjou. The Republicans, in the new committee, will avoid a repetition of this. The effort will be to show that the thinking men can support Nixon, and the Hollywood stars, this year, will not be on the list. Another step has been the encouragement by the Nixon staff of the Saturday Evening Post, which supports Nixon, in its plans for an article on Nixon's intellectual support.

Formal committees of intellectuals, whether they are formed by the Democrats or the Republicans, are created almost entirely for their publicity value. Beyond this, Nixon has been working to establish relationships with people who can be useful as policy advisers, researchers, and speech writers. Nixon and his staff say that he has been his own speech writer and his own policy maker, and they suggest that in general Nixon is his own man more than Kennedy, who has relied more on outside help for speeches and ideas. Yet as the campaign develops Nixon too will have to rely more on outside help. He needs to talk about more things than he can have first-hand knowledge of. As Adlai Stevenson discovered, a politician simply doesn't have time to write all the speeches he needs for a campaign if he is to have enough time and energy to deliver them. Thus James Shepley, Time-Life's chief of correspondents, who has taken leave to join Nixon's staff, has lately undertaken a role somewhat similar to that of Ted Sorenson in the Kennedy camp. Like Sorenson he has been active in establishing initial contact with intellectuals who might be useful in the campaign. Such contacts, if successful, are likely to lead to an invitation to attend one of the Sunday afternoon talk sessions the Vice-President has been holding with people whose ideas and insights promise to be valuable.

Nixon's comparative lack of access to top academic people is balanced by the ready access that he, as Vice-President, has to people within the Administration. He has apparently made good use of, and been influenced by, his contacts with such liberal-minded members of the cabinet as Labor Secretary Mitchell and Attorney General Rogers, as well as with a number of officials, some appointed, some career civil service, below the cabinet rank. Mitchell, for example, is believed to have influenced Nixon's stand in opposition to the so-called right-to-work laws, and Rogers is believed to be partially responsible for Nixon's strong commitments on civil rights.

Politics and Brain Trusts

People close to Nixon describe him as a "brainpicker": a man who is eager to talk to anyone who might have useful knowledge or ideas, but whose policies are clearly his own, rather than those of his advisers. They see a sharp contrast in this compared to Kennedy, and there is certainly a difference between the two. As was noted above, no one around Nixon gives the impression of having as strong a say on policy questions as some of Kennedy's associates. Whether this represents any weakness in Kennedy or special strength in Nixon is open to question. It may be that in reaction to Eisenhower's tendency to delegate his powers Nixon tries to control things more tightly than it is really efficient for one man to do. It is also true, as noted earlier, that Nixon, being more conservative than Kennedy, does not feel a similar need for a brain trust to help explore new policies for him.

There is nevertheless a sense of regret in the Nixon camp that the bulk of the best known academic names are on the other side. Because of the difference in outlook, they may not be sorry that Galbraith and Schlesinger are against Nixon, but they are certainly sorry that there are not more Burnses and Fullers to be for Nixon. But the Nixon people hope to turn the Kennedy brain trust to their own advantage. Nixon and other top Republicans have already started expressing their dismay that the party of Woodrow Wilson and Roosevelt should have become the party of Galbraith and Schlesinger and Bowles. There is actually a good deal of mutual respect between the two camps. But as the Democrats will, for campaign purposes, attempt to belittle Nixon in comparison with Eisenhower, so the Republicans will attempt to picture Kennedy as an immature young man whose administration would be dominated by his radical advisers.-H.M.

Morse Appointed to "Science" Editorial Board

It is a pleasure to announce the appointment of the distinguished research physicist Philip McCord Morse to the editorial board of Science. After graduation from the Case School of Applied Science (now the Case Institute of Technology), Morse took his master's and doctoral degrees at Princeton University. He continued at Princeton as an instructor in 1929-30. In 1930-31 he was a Rockefeller international fellow for study in Munich with Arnold Summerfield and at Cambridge with N. F. Mott and H. W. S. Massey. Upon his return to the United States in 1932 he became an assistant professor of physics at Massachusetts Institute of Technology, where he has continued his career except for leaves of absence for special tasks during and after World War II. He became an associate professor in 1934, a professor in 1937, and director of the MIT Computation Center in 1956. He continues to hold this last post and, in addition, is director of the MIT Operations Research Center, a position which he assumed in 1958.

Morse's early researches were divided between the field of the quantum mechanics of atomic collisions, with applications to gas discharges, and the field of acoustics. Later he became interested in operations research (see below) and computation. His most recent research work has been on electronic wave functions in metallic crystals and on linear acoustic theory. To some extent his range of research interests is reflected in the books or monographs he has authored or coauthored: Quantum Mechanics (with E. U. Condon), 1929; Vibration and Sound, 1936 (revised edition, 1946); Methods of Operational Research (with G. E. Kimball), 1950; Methods of Theoretical Physics, 1953; and Queues, Inventories, and Maintenance, 1958.

Morse has served the nation in numerous administrative and organizing capacities. After a brief stint at the Radiation Laboratory at MIT in 1939, he became chairman of a committee that was set up by the National Research Council to determine means of sound control and ways to reduce noise and vibration in military aircraft. He continued in this post until 1944 but also was pressed into service from 1939 to 1942 as director of a Navy project, which was administered by the National Defense Research Council, directed to