

# ELEMENTARY AND SECONDARY EDUCATION AMENDMENTS 1477

and 83,992 new secondary-school teachers will be needed for the 1966-67 session. The estimated demand for new elementary-school teachers represents 53.9 percent of the total estimated demand for new teachers.

Information in Table 16 of this report obtained from a varying number of states in earlier studies shows the relative demand for new elementary- and high-school teachers has been almost equalized in recent years. If these states are representative of the national pattern, the difference in the demand for new elementary- and new high-school teachers may be smaller than the 14,400 teachers estimated above.

**Total Estimated Demand for Beginning Teachers, Based on the Trend Criterion**—Combination of the components of the demand for beginning full-time public-school teachers discussed in the preceding paragraphs provides an estimate of the total demand which is shown in Table 12. The range of these estimates is about 19,000 teachers at the elementary-school level and about 15,000 teachers at the high-school level. The midpoints of these ranges are used in subsequent comparisons of teacher supply and demand. These midpoints provide an estimated demand for 69,636 beginning teachers in elementary schools and 61,761 beginning teachers in high schools.

**An Alternate Estimate of the Demand for Beginning Teachers Based on the Trend Criterion**—An alternate procedure may be used to obtain an estimate of the demand for beginning teachers in 1966-67. This procedure produces from the estimated number of beginning teachers employed in 1965-66, an estimate of the number needed in 1966-67 to fill vacancies created by teacher turnover.

Information obtained through a two-stage random sampling survey of all public-school teachers during the spring of 1966 provides an alternate estimate of the number of beginning teachers which were employed in 1965-66. These data were obtained for the NEA Research Division study, *Status of the American Public-School Teacher*, and are summarized in Table 13. The estimates for 1965-66 are greater than the estimates obtained in a similar study conducted in 1960-61. In that study the beginning teachers represented 8.0 percent rather than 8.7 percent of all teachers.

TABLE 13.—An estimate of the percent of public school teachers who were beginning teachers, spring 1966

| Level           | Percent of teachers who were beginning teachers |                |                     |             | Number in sample | Ratio of SE to simple random sample SE |
|-----------------|-------------------------------------------------|----------------|---------------------|-------------|------------------|----------------------------------------|
|                 | Estimate                                        | Standard error | Population estimate |             |                  |                                        |
|                 |                                                 |                | Low (−2SE)          | High (+2SE) |                  |                                        |
| (1)             | (2)                                             | (3)            | (4)                 | (5)         | (6)              | (7)                                    |
| Elementary----- | 7.5                                             | 0.80           | 5.9                 | 9.1         | 2,039            | 1,064                                  |
| Secondary-----  | 10.1                                            | .98            | 8.1                 | 12.1        | 1,879            | 1,044                                  |
| Total-----      | 8.7                                             | .63            | 7.4                 | 8.7         | 3,919            | 1,064                                  |

Source: Estimate is derived by combining the information obtained from 2 samples drawn from the same sampling frame. The increased number of individuals allows greater reliability in the estimate. 1 sample was drawn for a periodic national survey of teachers and the other for the NEA Research Division's "Status of the American Public-School Teacher, 1965-66" (a research study in process).

These 1965-66 percentage estimates were applied to the total number of full-time teachers to obtain the estimated number of beginning teachers employed in 1965-66. The range of  $\pm 2$  standard errors was used to establish a .95 percent confidence interval for the estimate. The number of new positions created for the 1965-66 session was subtracted from the total number of beginning teachers to obtain an estimate of the number of beginning teachers needed to fill positions vacated through staff turnover. The percent of the staff of full-time teachers before enlargement, which is represented by the number of beginning teachers needed to fill positions vacated through staff turnover, was applied to the number of full-time teachers in 1965-66 to obtain an estimate of the number of beginning teachers needed for this purpose in 1966-67.