Results
for the nation

## Chapter Six

## Results for the Nation: Performance of Selected Student Subgroups in Music, Theatre, and Visual Arts

This chapter presents overall Creating, Performing, and Responding results for grade 8 students for selected demographic subgroups. The subgroups, defined by region, gender, race, type of school, and parental education, are among those traditionally reported on by NAEP. ${ }^{1}$ The results from the NAEP 1997 arts assessment are consistent with NAEP results in other subjects, showing variability in average performance across many of those subgroups.

In this chapter, subgroup results are presented for music, theatre,
and visual arts. However, the reader is reminded that, unlike music and visual arts, theatre results are not for a random national sample. As previously explained, the theatre sample was composed of students who had accumulated 30 class hours of theatre classes by the end of the 1996-97 school year, at schools offering at least 44 classroom hours of a theatre course per semester. The reader should keep this in mind when making comparisons between the theatre demographic results and the music
and visual arts results presented in this chapter. To underscore the differences in samples, theatre results are presented after music and visual arts results.

Additionally, readers should avoid comparing scores across arts areas. The assessment exercises in each area were independently developed. No explicit efforts were undertaken to match the difficulty level or scope of coverage of the assessments across the different arts areas. Furthermore, the IRT-based Responding scales in each subject are indepen-

## Table 6.1 Average Music Scores by Region



SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.
dently derived, and the same score in two subjects may not represent the same level of student achievement. Consequently, comparisons of average scores across content areas are not inherently meaningful.

Finally, readers should note that unlike Responding results, Creating and Performing results are not summarized using a standard NAEP scale. Instead, Creating and Performing results are presented as average percents of the maximum possible score on exercises, in relation to demographic variables. (Percentages of students in the various subgroups discussed in this chapter may be found in Appendix A of this report.)

## Region

For reporting purposes, the nation was divided into four regions: West, Northeast, Southeast, and Central. Each state, and the District of Columbia, was assigned to a region. (Appendix A provides a description of each region.) Across the various subjects (reading, science, writing, history, geography, and others) assessed by NAEP, regional differences in performance typically have been found. In the arts, however, significant regional differences in performance were found only in music Responding.

Tables 6.1 to 6.3 present regional results for the arts assessment. In music (Table 6.1) there were no significant regional differences in average Creating and Performing scores. This may in some cases be due to the relatively small sample sizes of students that took blocks that included Creating and/or Performing tasks.

For music Responding (Table 6.1), students in both the Central and West regions outper-

## Table 6.2 Average Visual Arts Scores by Region

| Region | Average Creating Score $(0-100 \%)$ | Average Responding Scale Score (0-300) |
| :---: | :---: | :---: |
| Nation | 43 | 150 |
| Northeast | 45 | 152 |
| Southeast | 42 | 143 |
| Central | 45 | 157 |
| West | 43 | 149 |
|  | 0\% $\quad \mathbf{2 0 \%}$ 40\% $\quad 60 \% \quad 80 \% \quad 100 \%$ |  |

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

## Table 6.3 Average Theatre Scores by Region



NOTE: - Sample size is insufficient to permit a reliable estimate. SOURCE: National Center for Education Statistics, National CARD Assessment of Educational Progress (NAEP), 1997 Arts Assessment.
formed students in the Southeast. The apparent difference between students' scores in the Northeast and students in the Southeast, though consistent with NAEP results in other subject areas, is not statistically significant.

Table 6.2 presents average visual arts scores for Creating and Responding according to region. Again, while there are apparent differences in visual arts average Responding scale
scores across regions, none of these differences is significant.

In theatre, as shown in Table 6.3, sample sizes except in the West were too small to measure results, so no performance comparisons can be made. (This can be explained by the special nature of the theatre sample. The great majority of schools featuring theatre as part of their curricula were located in the West.)

## Table 6.4 Average Music Scores by Gender

| Gender | Average Creating Score $(0-100 \%)$ | Average Performing Score (0-100\%) | tverage Responding icale Score (0-300) |
| :---: | :---: | :---: | :---: |
| All Students | $34 \square$ | $34 \square$ | 150 |
| Male | 32 | 27 | 140 |
| Female | $37$ | $40$ | 160 |
|  |  | 0\% 20\% 40\% 60\% 80\% 100\% |  |
| SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment. |  |  |  |

## Table 6.5 Average Visual Arts Scores by Gender



## Table 6.6 Average Theatre Scores by Gender



## Gender

Tables 6.4 to 6.6 present the NAEP 1997 arts results for males and females at grade 8. Various NAEP assessments have captured performance differences between males and females. While females have outperformed males in reading and writing, males have outperformed females in geography and, at grade 8, in science. In the arts assessment, females often had higher average scores than did males.

Table 6.4 shows results for music. Females outperformed males in music Creating, Performing, and Responding. Females also outperformed males in Creating and Responding in visual arts, as shown in Table 6.5.

In the theatre assessment (Table 6.6) females outperformed males in both Creating/Performing and in Responding.

## Table 6.7 Average Music Scores by Race/Ethnicity



## Race/Ethnicity

Tables 6.7 to 6.9 present arts assessment results for the following mutually exclusive categories: White, Black, Hispanic, Asian, Pacific Islander, and American Indian. ${ }^{2}$ NAEP creates these subgroups based on students' reports of their race/ethnicity. Past NAEP assessments have consistently reported performance differences among various racial/ethnic groups. ${ }^{3}$ This pattern of results is also found in the arts, most noticeably in the

Responding results across subjects. When interpreting such differences in performance, however, confounding factors related to socioeconomics, home environment, and available educational opportunities need to be considered. ${ }^{4}$

Table 6.7 shows results for music. Consistent with NAEP assessments in other subjects, White students had higher average music scores than did Hispanic students for Creating, Performing, and Responding,
and higher average scores in Responding and Performing, but not Creating, than did Black students. Asian students had higher average music Responding scores than did Black and Hispanic students. In music, it was not possible to make an accurate determination of the average scores for Pacific Islander and American Indian students. Therefore, differences among these groups or in relation to other groups are not discussed for music.

[^0]The pattern is similar in visual arts (Table 6.8). White students had higher average scores than did Black or Hispanic students for both Creating and Responding. Additionally, Asian students had higher average scores than did Black or Hispanic students for Creating and Responding. In visual arts, it was not possible to make an accurate determination of the average scores for Pacific Islander and American Indian students. Therefore, differences among these groups or in relation to other groups are not discussed for visual arts.

In theatre, White students had higher average scores than did Black or Hispanic students for Creating/Performing and Responding (Table 6.9). Given theatre sample sizes, it was not possible to make an accurate determination of the average scores for Asian, Pacific Islander, or American Indian students. Therefore, differences among these groups or in relation to other groups are not discussed for theatre.

Readers are cautioned against making simplistic inferences about differences in performance among different groups of students. As noted earlier, average performance differences may be partly related to socioeconomic or sociological factors, such as parental education or parental involvement. More indepth investigations would be required to produce a clearer picture of performance differences by race/ethnicity.

Table $6.8 \quad$ Average Visual Arts Scores by Race/Ethnicity


NOTE: - Sample size is insufficient to permit a reliable estimate. SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

## Table 6.9 Average Theatre Scores by Race/Ethnicity

$\left.\begin{array}{lc:c} & \begin{array}{c}\text { Average Creating/ } \\ \text { Performing Score (0-100\%) }\end{array} & \begin{array}{c}\text { Average Responding } \\ \text { Scale Score (0-300) }\end{array} \\ \hline \text { All Students } & \text { 49 } & \\ \text { Students who indicated their Race/Ethnicity as... }\end{array}\right]$

NOTE: - Sample size is insufficient to permit a reliable estimate.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment

Table 6.10 Average Music Scores by Type of School Attended


## Type of School

Approximately 90 percent of the nation's grade 8 students attend public schools. The remainder attend Catholic and other private schools (i.e., nonpublic schools). Past NAEP results across a variety of subjects have consistently shown students attending nonpublic schools outperforming students attending public schools. Tables 6.10 to 6.12 present results by type of school for the arts assessment.

Table 6.10 shows results for music. There were no significant differences between students attending public and nonpublic schools for music Creating, Performing, or Responding. In visual arts (Table 6.11), students attending nonpublic schools did outperform those attending public school for Responding, but not for Creating.


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SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.

For theatre, as Table 6.12 indicates, sample sizes of students studying theatre and attending nonpublic schools were too small to allow for comparisons of average performance.

Caution should be taken not to make simplistic inferences about the relative effectiveness of public and nonpublic schools. Average performance differences between the two types of schools may be partly related to socioeconomic or sociological factors, such as parental education or parental involvement. More in-depth investigations would be required to get a clearer picture of school differences.


## Parental Education

Each student who participated in the NAEP arts assessment was asked to indicate the level of education attained by each parent. Based on this information, parents' highest level of education (as reported by students) was determined. Specifically, this reflects the highest educational level the student reported for either parent. Therefore, if a student reported that one parent graduated from college, that student's performance is included in the graduated from college score estimates. The levels of parental education reported are as follows: did not finish high school, graduated from high school, some education after high school, and graduated from college.

In general, consistent with other NAEP assessments, higher levels of parental education were associated with higher levels of student performance (see Tables 6.13 to 6.15 on
pages 141-142). This pattern of results is found in the music and visual arts Responding results. It is also evident, to varying degrees, in the theatre Responding results and in the Creating and Performing results across the arts areas.

In music Creating and Performing (Table 6.13), students whose parents had graduated from college outperformed those students whose parents did not finish high school and those whose parents had graduated from high school. The remaining apparent differences between Creating and Performing scores of students whose parents had graduated from college and those students whose parents had some education after high school were not statistically significant.

Students whose parents had some education after high school had higher music average Creating and Performing scores than did their
peers whose parents had not finished high school, and higher Creating scores than those students whose parents had graduated from high school. The apparent differences between Performing scores for students whose parents had some education after high school and students whose parents had graduated from high school were not statistically significant.

Finally, students whose parents had graduated from high school had higher average music Performing scores than did students whose parents had not finished high school. Apparent differences between average music Creating scores for students whose parents had graduated from high school, and those whose parents had not finished high school were not statistically significant.

In music Responding (Table 6.13), students whose parents had gradu-

Table 6.13 Average Music Scores by Parents' Highest Education Level


SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.
ated from college outperformed all other groups of students. Students whose parents had some education after high school had higher average music Responding scale scores than did students whose parents had graduated from high school and students whose parents had not finished high school. Lastly, students whose parents had graduated from high school had higher average Responding scale scores than did their peers whose parents had not finished high school.

Visual arts results are shown in Table 6.14. For visual arts Creating, students whose parents had graduated from college outperformed those whose parents did not finish high school and students whose parents had graduated from high school. Students whose parents had some education after high school had higher average Creating scores than those whose parents did not



SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1997 Arts Assessment.
finish high school or had graduated from high school. Finally, students whose parents had graduated from high school outperformed their peers whose parents did not finish high school.

Students whose parents had graduated from college had higher average visual arts Responding scale scores than did the other three groups of students (Table 6.14). Students whose parents had some education after high school had higher average scale scores than did students whose parents had not finished high school and students whose parents had graduated from high school. Lastly, students whose parents had graduated from high school outperformed their peers whose parents had not finished high school.

For theatre Creating/Performing (Table 6.15), students whose parents had graduated from college outperformed students whose parents had not finished high school and students whose parents had graduated from high school. Students whose parents had some education after high school had higher average scores than those whose parents had not finished high school or had graduated from high school. Further, students whose parents had graduated from college or had some education after high school had higher average Responding scale scores than did students whose parents had not finished high school.

## Summary

The preceding sections provided a detailed picture of arts achievement for students in various subgroups defined by region, gender, race/ethnicity, type of school, and parental education. Although results varied (and some could not be reported because of sample sizes) the following patterns emerged for gender, race/ethnicity, and parental education.

- Females consistently outperformed their male peers in the NAEP 1997 Arts Assessment.
- Consistent with past NAEP assessments, White and (where sample sizes were large enough) Asian students had higher average scores in some instances than did Black or Hispanic students. Exceptions were the absence of significant differences between White and Black students for music Creating, and the absence of significant differences between Black, Hispanic, and Asian students for music Creating and Performing.
- Also consistent with past NAEP assessments, in general, higher levels of parental education were associated with higher levels of student performance for music and visual arts. This was also true for theatre.


[^0]:    2 The percentages and scores reported for American Indians include Alaskan Natives.
    3 Campbell, J.R., Voelkl, K.E., and Donahue, P.L. (1997). NAEP 1996 trends in academic progress: Achievement of U.S. students in science, 1969 to 1996; mathematics, 1973 to 1996; reading, 1971 to 1996; and writing, 1984 to 1996. (Publication No. NCES 97-985). Washington DC: National Center for Education Statistics.
    4 Cole, Nancy S. (1997). Merit and opportunity: Testing and higher education at the vortex. Paper presented at the national conference, New Directions in Assessment for Higher Education: Fairness, Access, Multiculturalism and Equity, New Orleans, LA.

