Although national monitoring has been designed primarily to present an overall national picture of student achievement, there is some provision for reporting on performance differences among subgroups of the sample. Nine demographic variables are available for creating subgroups, with students divided into two or three subgroups on each variable, as detailed in Chapter 1(p4).

The analyses of the relative performance of subgroups used an overall score for each task, created by adding scores for the most important components of the task.

Where only two subgroups were compared, differences in task performance between the two subgroups were checked for statistical significance using t-tests. Where three subgroups were compared, one way analysis of variance was used to check for statistically significant differences among the three subgroups.

Because the number of students included in each analysis was quite large (approximately 450), the statistical tests were quite sensitive to small differences. To reduce the likelihood of attention being drawn to unimportant differences, the critical level for statisticial difference was set at p = 01 (so that differences this large or larger among the subgroups would not be expected by chance in more than one percent of cases).

Details of statistically significant results are presented below.

Gender

Results achieved by male and female students were compared.

For year 8 students, there was a statistically significant difference between boys and girls on one art making task and four questions on the *Year 8 Art Survey* (p49). Girls performed better on the Media attribute of the *Insect Head* collage task (p35)In the *Year 8 Art Survey* (p49), girls were more positive about art as a school subject and as an area of involvement in their own time (questions 1,2,4 and 9).

For year 4 students, there were statistically significant differences between boys and girls on three art making tasks and two questions of the *Year 4 Art Survey* (p48). Boys scored higher than girls on the global score and all attributes for the *Triceratops Observational Drawing* (p11). It appears that drawing a dinosaur was more attractive to boys and their prior knowledge of triceratops may have been greater. In contrast, boys scored lower than girls on the detail and media attributes of the *Print Making* task (p40), and on the detail attribute of the *Clay Model* task (p40). In responding to the *Year 4 Art Survey* (p48), boys were less positive than girls on questions 7 and 8 about engaging in art activities in their own time.

Zone

Results achieved by students from Auckland, the rest of the North Island, and the South Island were compared.

For year 8 students, there were statistically significant differences among the three subgroups on two art making tasks and one question of the *Year 8 Art Survey*(p49). Students from the South Island scored lower than the other two groups in all cases. These differences occurred on the global score and all attributes of the *Firebird* task (p27), the expressiveness, detail, and strength attributes of the *Clay Model* task (p40), and question 11 about continuing to study art on the *Year 8 Art Survey* (p49).

For year 4 students, there were statistically significant differences among the three subgroups on only one task, the *Two Paintings* task (45) . Students from the South Island scored higher than students from the other zones on the global score, and on the description and interpretation attributes.

Community Size

Results were compared for students living in communities containing over 100,000 people (main centres), communities containing 10,000 to 100,000 people (provincial cities), and communities containing less than 10,000 people (rural areas).

The only statistically significant differences were for students responding to the *Year 4 Art Survey* (p48). On two questions related to involvement in art activities in their own time (questions 7 and 8), year 4 students from the main centres indicated greater involvement than their counterparts from provincial cities or rural areas.

School Size

Results were compared from students in larger, medium sized, and small schools (exact definitions were given in Chapter 1, p4).

The only statistically significant difference occurred for students responding to question 8 in the *Year 8 Art Survey* (p49). Students from the larger schools were less inclined to want to "do more art" at school.

School Type

Results were compared for year 8 students attending full primary schools and year 8 students attending intermediate schools.

Statistically significant differences were found on one art making task, one responding to art task, and one question of the *Year 8 Art Survey* (p49). Students attending intermediate schools scored higher on the strength attribute of the *Clay Model* task (p40), lower on the global score and the description and responsiveness attributes of the *Two Sculptures* task (p43), and lower on the question "How often does your class do really good things in art?" in the *Year 8 Art Survey* (p49).

Socio-Economic Index

Schools are categorized by the Ministry of Education based on census data for the census mesh blocks where children attending the schools live. The SES index takes into account household income levels, categories of employment, and the ethnic mix in the census mesh blocks. The SES index used ten subdivisions, each containing ten percent of schools (deciles 1 to 10). For our purposes, the bottow three deciles (1-3) formed the low SES group, the middle four deciles (4-7) formed the medium SES group, and the top three deciles (8-10) formed the high SES group.

Results were compared for students attending schools in each of these three SES groups.

For year 8 students, there were statistically significant differences among the three subgroups on two tasks. Students from high SES schools scored higher than students from other schools on the global score and description attribute of the *Two Sculptures* task (p43). Students from low SES schools scored lower than students from other schools on the *Print Making Processes* team task (p47).

Only one statistically significant difference was found for year 4 students. Students from low SES schools scored lower than students from other schools on the *Printmaking Processes* team task (p47).