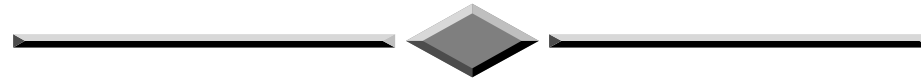


Colorado Visual and Performing Arts Education Survey Statistical Report

A comprehensive survey of arts education in the Colorado schools



Data Collected: December, 2007 – January, 2008

Report: March, 2008



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Executive Summary

Approximately 25% of Colorado Public Schools provided a detailed description of the size and scope of their formal and informal (extra-curricular) arts education programs via a voluntary survey in January of 2008. Sixty-six percent of the school districts had at least one school participate in the study.

The objective of the study was to quantify the level, type and scope of arts education offered and delivered to Colorado public school students.

The major findings of the study are below.

- Overall, the news is good for Colorado school children. Ninety-three percent of elementary grade schools (K-5) offer some formal arts education to students. Slightly fewer (86%) of middle schools (grades 6-8) have formal arts education, as do 83% of high schools (9-12).
- Formal education in Visual Arts and Music are offered in a strong majority of elementary grade schools and high schools (79%-89%, depending on grade level and arts discipline). Middle schools, however, are somewhat less likely to offer Visual Arts (60%) or Music (63%).
 - For the younger grade levels (K-8), Theater is offered by a minority of schools (10%-23%, depending on student age). Theater is much more commonly offered in high schools, of which about half offer a Theater class or opportunity.
 - Of the four broad arts disciplines examined, Dance was, by far, the least commonly offered. About 15% of elementary schools offer Dance to their students, and slightly more – 20% - of middle and high schools offer Dance.
- Not only do most of Colorado schools offer arts education to students, they provide that education to a majority of students. Eighty-eight percent of elementary school students received Visual Arts instruction in the 2007-2008 school year; 94% were given Music instruction. Much fewer elementary school students received instruction in Theater Arts (11% of students) or Dance (20%). About two-thirds of middle school students received Visual Arts and/or Music instruction in the recent school year (but far fewer, 22% and 11%, received instruction in Theater Arts and/or Music, respectively). High school students were the least likely to have received arts instruction: 30% Visual Arts; 26% Music; 22% Theater Arts; 3%, Dance. Disregarding art discipline, 94% of elementary school students received some type of arts instruction in the recent school year, 66% of middle school students did, followed by 47% of high school students. Note that typically high school students have discretion in classes taken, and a decreased level of arts education in high schools is not necessarily a reflection of the high school's lack of commitment.
 - Approximately 29,000 Colorado public school students attend schools without any exposure to formal arts education.

Executive Summary (continued)

- There are other signs of strong arts education in Colorado public schools: the use of non-certified teachers ranges from non-existent to very uncommon, depending on the grade level and arts discipline (highly trained Music teachers are essentially ubiquitous). Students receive a healthy *amount* of arts education: average of 120 minutes per week. Only 20% of elementary schools offer an hour or less of arts education. Colorado schools offer a wide variety of different types of classes/courses in the arts; the formal arts education is nowhere near limited to just general Visual Art, Music, Theater Arts or Dance. On the whole, schools show a good breadth and progression towards higher level coursework. Four-in-five schools report being properly equipped for arts education (as opposed to relying solely on general classroom space). Most (96%) of high schools use student performance in art for GPA/class rank calculations. Only half (53%) of high schools have an arts education graduation requirement, however.
- Some schools are being resourceful by reaching out to the community for assistance in providing arts education. Almost one-third obtain outside funding, and almost as many partnership with outside arts organizations/institutions. Leveraging outside resources for arts education is fairly common: 4 in 10 schools received arts instruction from a Visiting Artist in the past school year; Half of all schools reported students participating in arts-related field trips; and, two-thirds of elementary or middle schools had arts-related assemblies, as did 81% of high schools. Only one-in-five schools did not avail themselves of any outside resources for arts education enrichment within the past year.
- There are many potential barriers to providing arts education – without mandates, school and district leadership must believe in arts education’s value in order for it to be robust, consistent, and high quality. As a group, respondents showed very strong support for the notion that arts education is an integral and impactful component to a quality education; few respondents appear to need convincing that arts education is critical to school children’s success on the whole.
 - Also as a group, respondents in our survey felt that “the amount of time needed for core academic disciplines” was more of a barrier to arts education than was “district budget allocation to arts education.” In other words, time is more of a problem than money. However, respondents, as a group, were more likely to report reductions in budget allocation for arts instruction than either increases or *status quo*. This may not bode well for sustaining the current high levels of arts education in Colorado as certainly there is a point where decreasing budgets will begin to impact the levels and quality of arts education.

Executive Summary (continued)

- Using the various components of arts education measured in the study, we computed an “arts index” for each school, where ‘0’ meant a school provided no type of opportunity (of 14 different potential opportunities) to students and a ‘1’ meant the school offered *all* opportunities. By doing this, we could ask larger questions regarding the types of schools which have lower and higher levels of arts education. We found that rural schools, on average, provided lower levels of arts education than suburban/urban schools. Size mattered for high schools (larger schools had higher indices), but not for middle or elementary schools. Racial composition and/or socioeconomic status of the student body was *not* related to arts index of a school. Arts index was positively and significantly related to standardized test performance (Colorado-based) in writing, reading, and science proficiency, but not math. Arts index was negatively and significantly related to school drop-out rate (schools with higher index scores had lower drop-out rates).
- Arts indices varied widely *within* districts, suggesting that individual choice among school leadership (with all of its influences, like parents and local arts community resources) has a tremendous impact on the level of arts education in schools. Schools within the same district have essentially the same budgets and the same district guidance, yet they manifest tremendously different levels of arts education.

Conclusions & Recommendations

- School administrators: This study shows two important things about Colorado schools. One, on the whole Colorado school administrators “believe in” the value of arts education. Two, that belief is manifested through a wide and deep arts education offering throughout Colorado. However, there are some gaps where schools with seemingly many resources are almost devoid of arts education. Likewise, there are schools with very high levels of art education despite small budgets, little access to outside resources, and a disadvantaged student body.
- Parents: Use the information in this report, in particular the different ways that arts education is measured, and find out if your child’s school is offering a healthy amount of arts education breadth and depth. Do students receive more than one type of arts education? Are teachers certified in the arts? How many hours per week are students instructed? Is there a curriculum progression past the basic arts courses? These are all telling signs that arts education is taken seriously in your child’s school. Another important lesson from this study for parents is simply the fact that so many educators in Colorado, despite the lack of a state mandate to do so, *are* ensuring a strong arts education for their students. In other words, the professionals know how important this is to their students, and they are in the best position to know that.
- Arts Institutions/Organizations: Many schools rely on outside resources to buttress their arts education programs. The period of youth is where tastes for the arts are formed, and numerous studies have shown that early arts experiences have tremendous impacts on choices for arts and entertainment later in life. Your future audiences are currently sitting in classrooms throughout Colorado and there is a strong role for you in their arts education.

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Methods

- A total of 1,710 schools were contacted via U.S. Post to participate in a survey on the level and types of arts education in Colorado Public Schools. Survey invitations were sent to school principals at each of these Colorado Public schools.
- Potential participants were sent a letter of introduction from the Colorado Department of Education (included in Appendix), which described the nature and purpose of the study. Participants were also sent a “paper” version of the questionnaire and a self-addressed return envelope. The instructions for the survey included an alternative route for data provision via an on-line survey. In terms of content (data collected) the “paper” and “on-line” surveys were identical.
- Participants received their survey packets the week of December 3, 2007.
- Data collection was ceased on January 18th, 2008.
- A total of 458 completed surveys were returned. Six surveys were deemed unusable because of a high number of incomplete questionnaire items. Seventeen schools completed the surveys using both methods (“paper” and “on-line”). Ten completed questionnaires were returned but were anonymous (no identifying school information was included). Both the unusable and duplicate questionnaires were removed from analysis, resulting in a final sample size of 435. This represents a response rate of 25%, and has a resultant margin-of-error of +/- 4.1%. This means that the proportional results obtained by the survey are within +/-4.1% of what we would have found had we surveyed all 1,710 Colorado public schools.
- The study of approximately one-fourth of all Colorado public schools directly represents a total of 206,000 school children from grades K-12.

Participating Schools & School Districts

Participating Schools & School Districts

School Districts Represented

(n=435)

- Of the 179 public school districts in Colorado, 119 had at least one school participate in the study.
- Of the 36 relatively large (at least 10 schools) districts, all but one had at least one school participate in the study.
- A comprehensive listing of the percentage of schools participating from each school district is included in the Appendix.

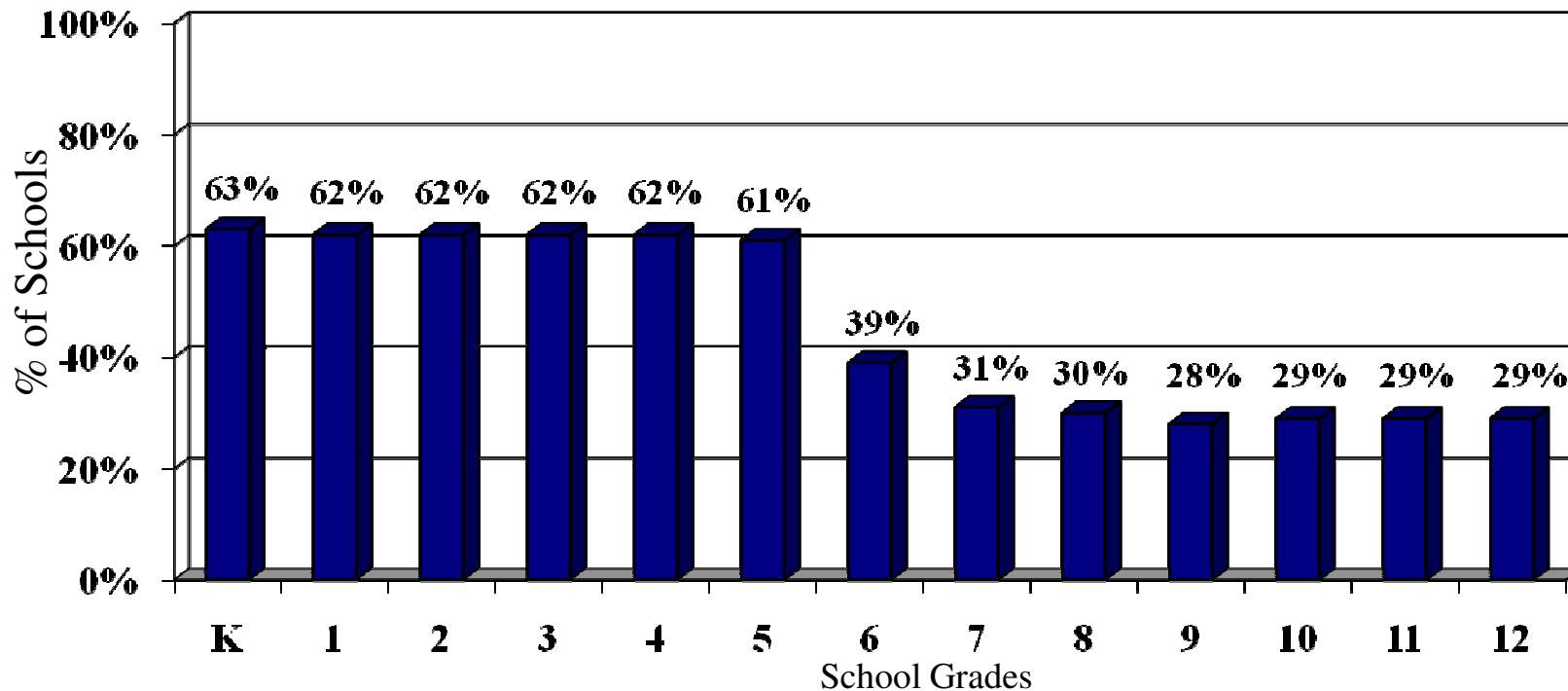
Participating Schools & School Districts

Grade Levels

(n=435)

Q1: Please indicate the grade levels of your school? (Check all that apply)

Grades In Participating Schools



- Elementary grade schools tend to be smaller in terms of number of students, and therefore there are more elementary school buildings than middle- or high-school buildings. Our study reflects that. Almost two-thirds of the schools surveyed had at least one K-5 grade. Schools with higher grades (6-12) comprised about 3 in 10 of the surveyed schools.

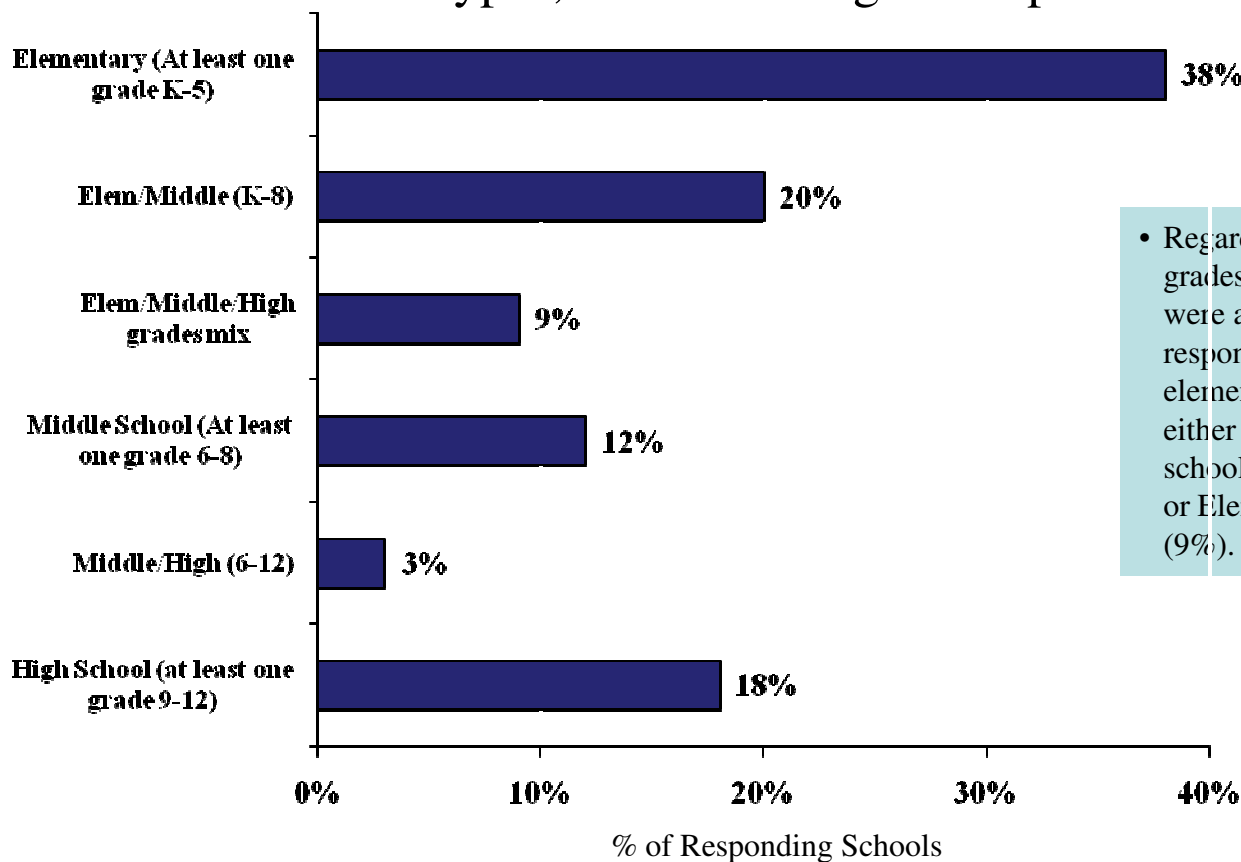
Participating Schools & School Districts

Grade Levels

(n=435)

Q1: Please indicate the grade levels of your school? (Check all that apply)

School Types, In Term of Age Groups



- Regarding school type, in terms of grades included, responding schools were a large mix of types. Most of the responding schools had at least some elementary grades: 67% of schools were either Elementary only (38% of schools), Elementary/Middle mix (20%) or Elementary/Middle/High School mix (9%).

**Availability of Arts
Education In Colorado
Schools**

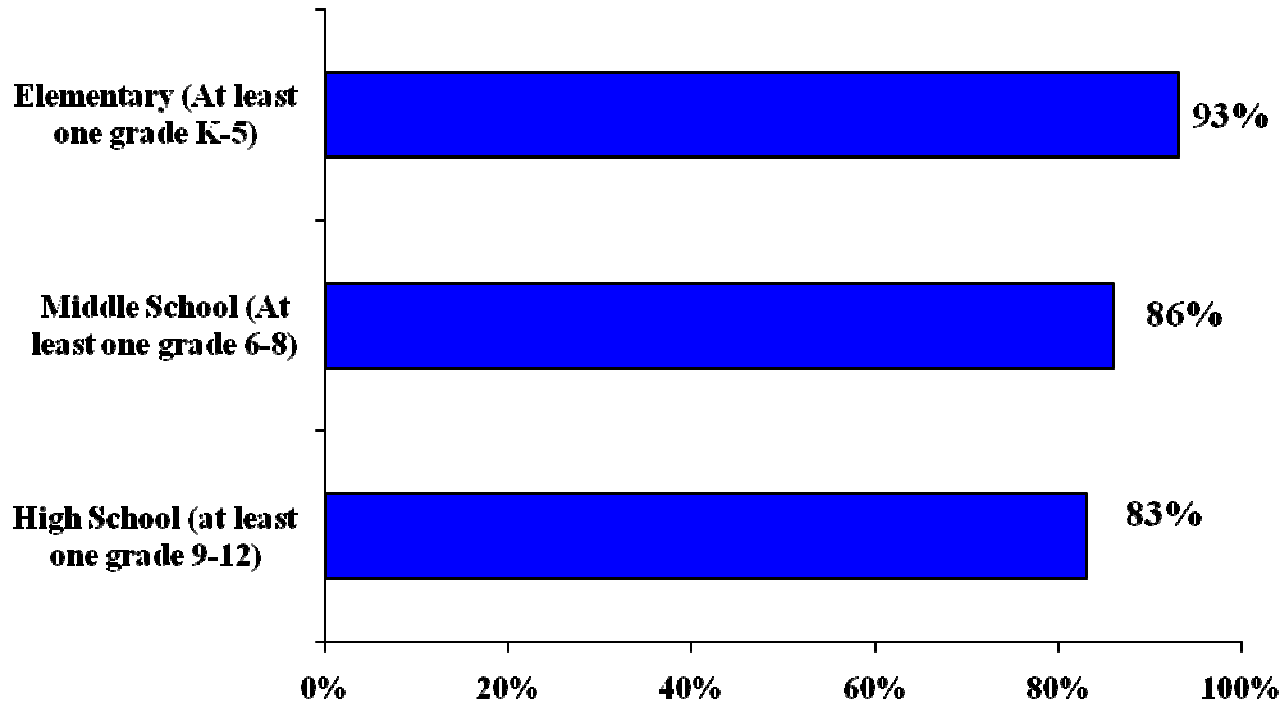
Availability of Arts Education in Colorado Schools

Formal Arts Education

(n=435)

Q2: Does your school provide any formal arts education to students? By this we mean instructional time set aside specifically for arts education (either visual arts, music, dance, or theater arts), not the use of any art form to assist in other instructional disciplines.

Proportion of Schools With At Least Some Formal Arts Education Available to Students



- Most schools (especially elementary schools) have at least some formal arts education for students [83%-93%, depending on school type].
- Based on these findings, we can estimate that approximately 29,000 Colorado public school children attend schools which do not offer any formal arts education.

% of Responding Schools

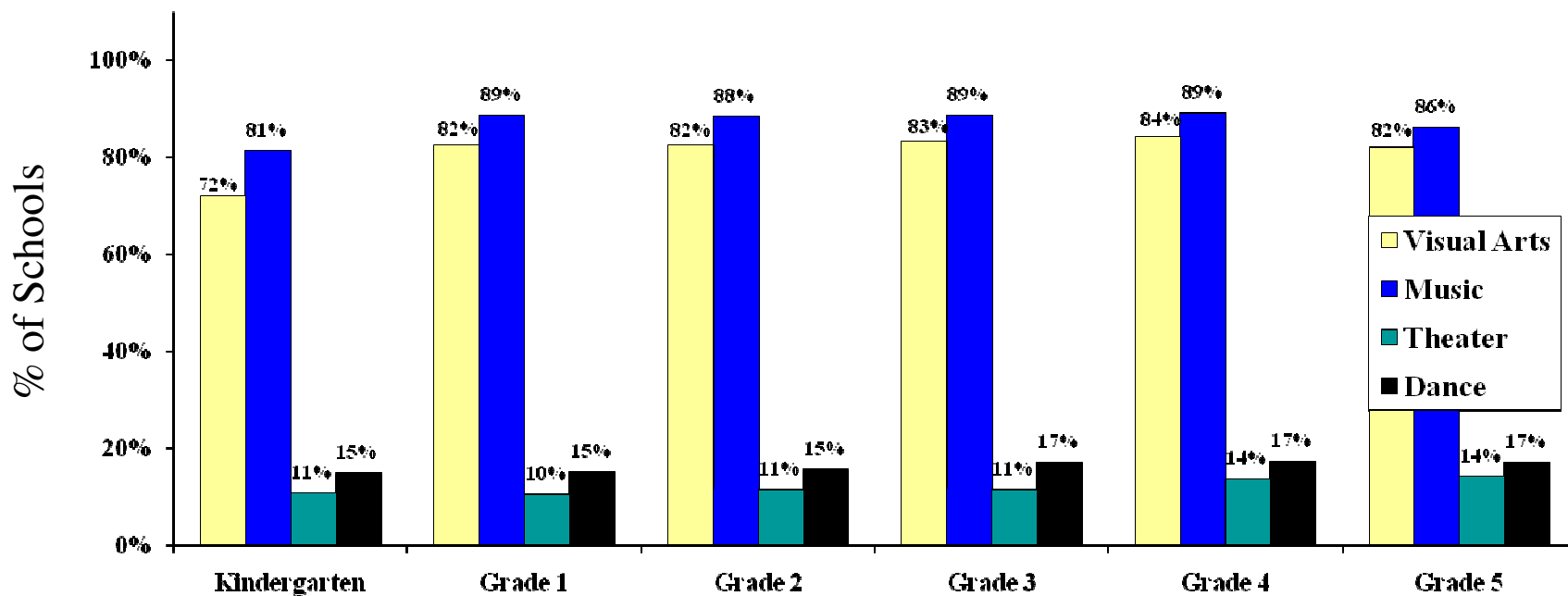
Availability of Arts Education in Colorado Schools

Grade Levels Receiving Formal Arts Disciplines

Elementary Schools Only, (n=295)

Q3: Which grade levels in your school will receive at least some formal arts education in each of the four main arts disciplines during the 2007-2008 school year? (Check all the grades that apply for each arts discipline)

Proportion of Elementary Schools With At Least Some Formal Arts Education Available to Students, By Arts Discipline & Grade Level



- On the previous page, we saw that almost all elementary schools (93%) offer at least some formal arts education. Here we see that, at every grade level, the majority of elementary schools offer Visual Arts and/or Music. Theater and Dance are offered far less commonly.

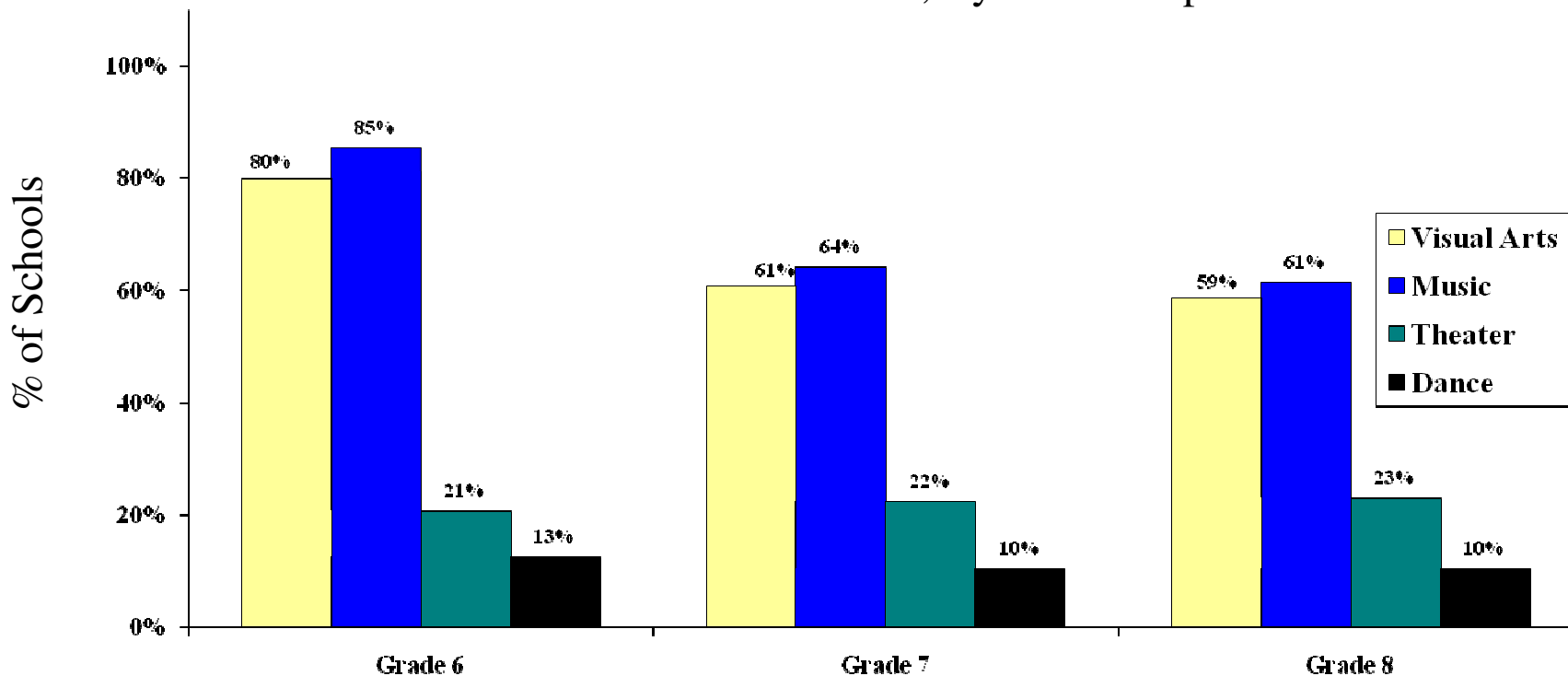
Availability of Arts Education in Colorado Schools

Grade Levels Receiving Formal Arts Disciplines

Middle Schools Only, (n=192)

Q3: Which grade levels in your school will receive at least some formal arts education in each of the four main arts disciplines during the 2007-2008 school year? (Check all grades that apply for each arts discipline)

Proportion of **Middle Schools** With At Least Some Formal Arts Education Available to Students, By Arts Discipline & Grade Level



- Likewise, while 86% of middle schools offer at least some formal arts education, the focus is on Visual Arts and Music, as opposed to Theater and Dance.

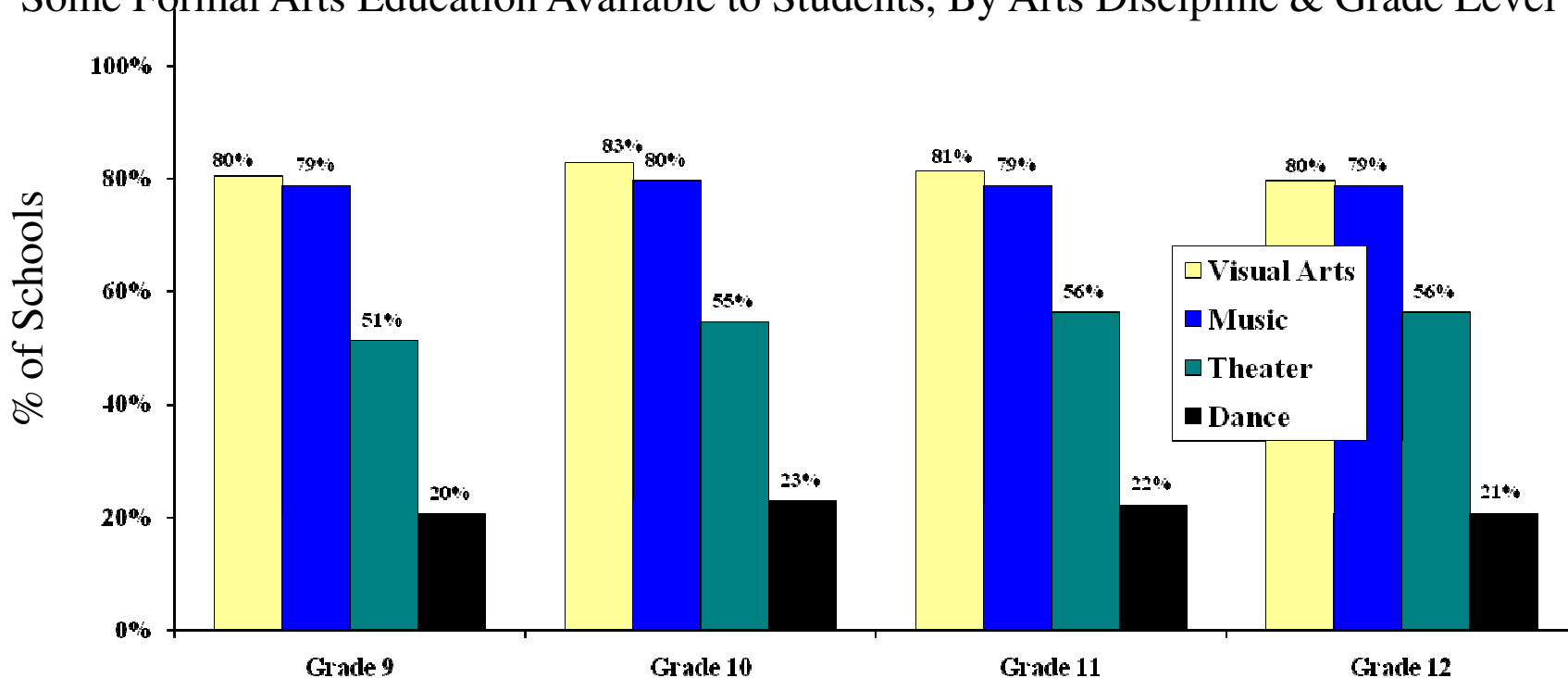
Availability of Arts Education in Colorado Schools

Grade Levels Receiving Formal Arts Disciplines

High Schools Only, (n=131)

Q3: Which grade levels in your school will receive at least some formal arts education in each of the four main arts disciplines during the 2007-2008 school year? (Check all grades that apply for each arts discipline)

Proportion of **High Schools** With At Least Some Formal Arts Education Available to Students, By Arts Discipline & Grade Level



- At the high school level we saw much more inclusion of Theater in the arts education mix. Dance as an offering was also more common at the high school grades than the lower grades, but not nearly as common as the other three art disciplines in high school.

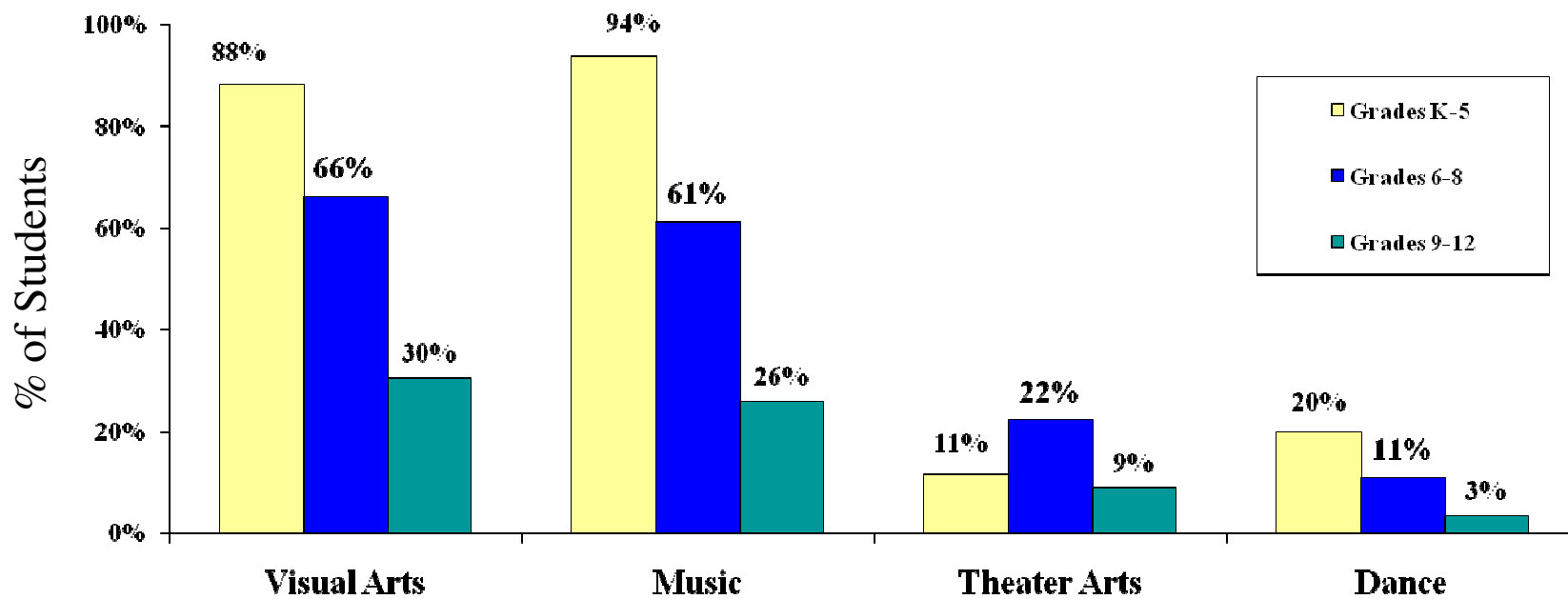
**Level of Arts Education In
Colorado Schools**
*Volume of Courses and Students
Who Receive Instruction*

Level of Arts Education in Colorado Schools

Number of Students Receiving Formal Arts Disciplines (n=435)

Q4: Please tell us below the number of students you have in each grade cluster, and of those students, how many will receive arts instruction within that arts discipline during the 2007-2008 school year? Note that students may be duplicated in these counts if they receive instruction in more than one arts discipline.

Proportion of Students, By Grade Level Clusters,
Who Received Arts Instruction in 2007-2008 School Year, By Arts Discipline
[Summed Scores for All Responding Schools Which Provided Discipline Detail]



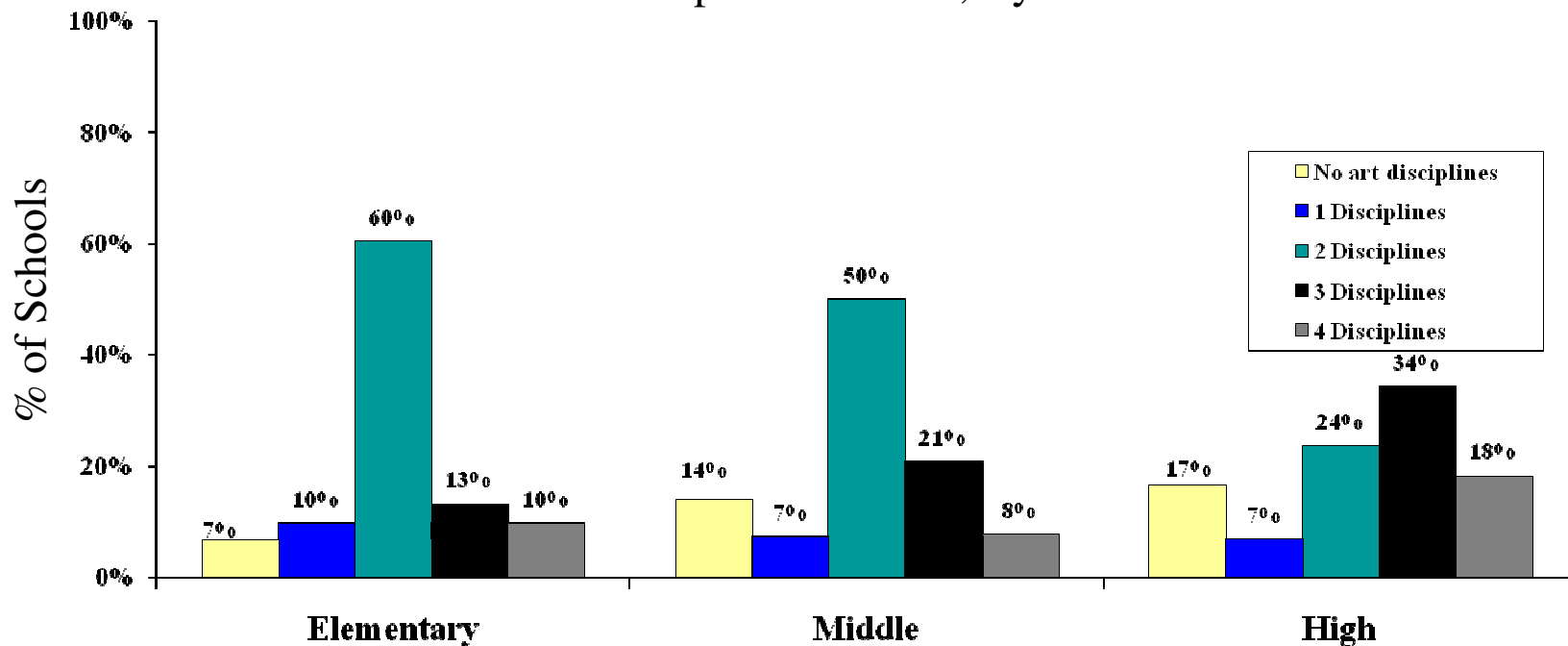
- At the student level, we see that a great majority of elementary school students received Visual Arts and/or Music in the 2007-2008 school year. About two-thirds of middle school students received instruction in those disciplines as well. For all grade levels, a minority of students received instruction in Theater Arts and/or Dance.

Level of Arts Education in Colorado Schools

Number of Students Receiving Formal Arts Disciplines (n=435)

Q4: Please tell us below the number of students you have in each grade cluster, and of those students, how many will receive arts instruction within that arts discipline during the 2007-2008 school year? Note that students may be duplicated in these counts if they receive instruction in more than one arts discipline.

Number of Arts Disciplines Offered, By Grade Level Clusters



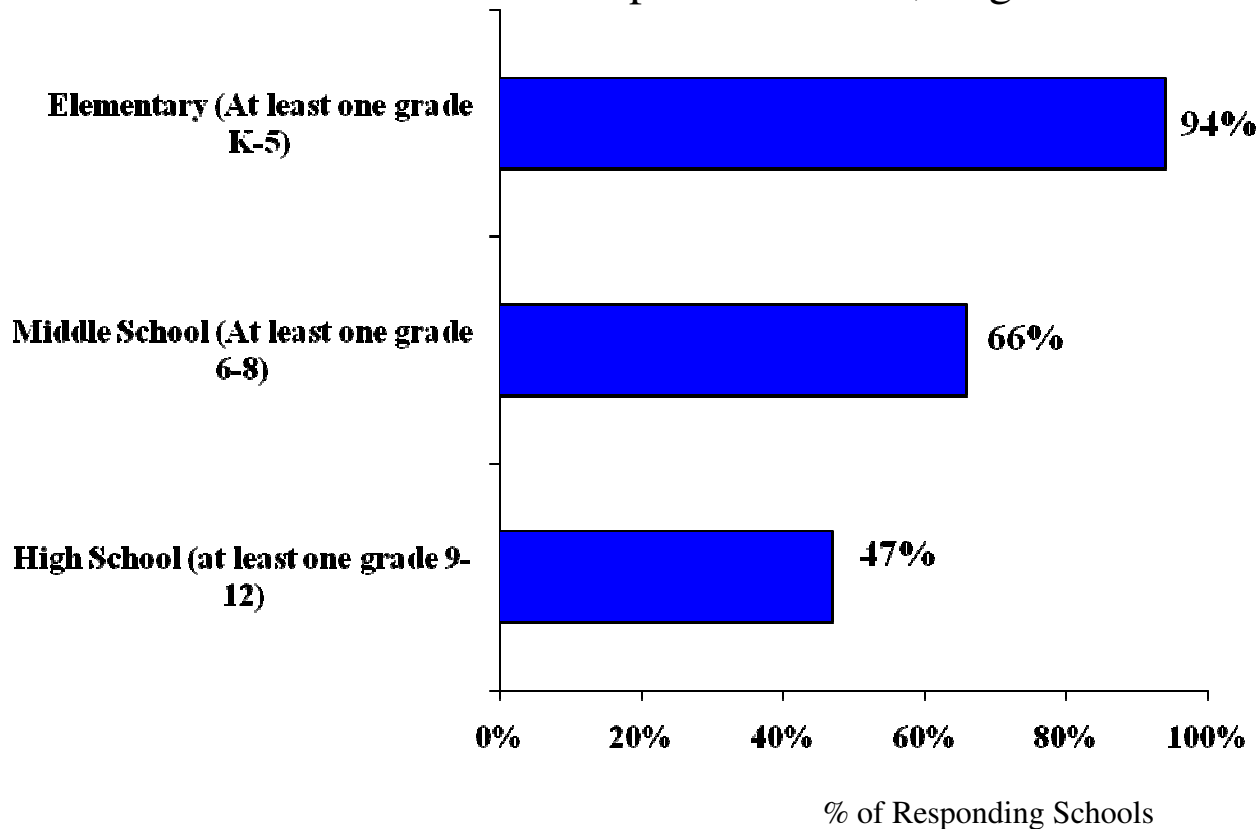
- Few schools offer only one arts discipline (at most, 7%, which was for high schools). Both elementary and middle schools typically offer only two arts disciplines. High schools most commonly offer three, and many (18%) offer all four arts disciplines.

Level of Arts Education in Colorado Schools

Number of Students Receiving Formal Arts Disciplines

Q5: Disregarding the art form (visual arts, music, etc.) what number (or percentage) of your total student body will receive some formal art instruction during the 2007-2008 school year? For this count, a student should only be included once, regardless of number of arts classes taken.

Proportion of Students Receiving Arts Education, By Grade Cluster Unduplicated Count; Regardless of Art Discipline



- If we examine unduplicated counts of students obtaining at least some formal arts education, we see that, proportionately, elementary students are more commonly receiving arts education than both middle school students (66%) and high school students (47%). This is not surprising, as students at higher grade levels often have discretion in which courses they take.

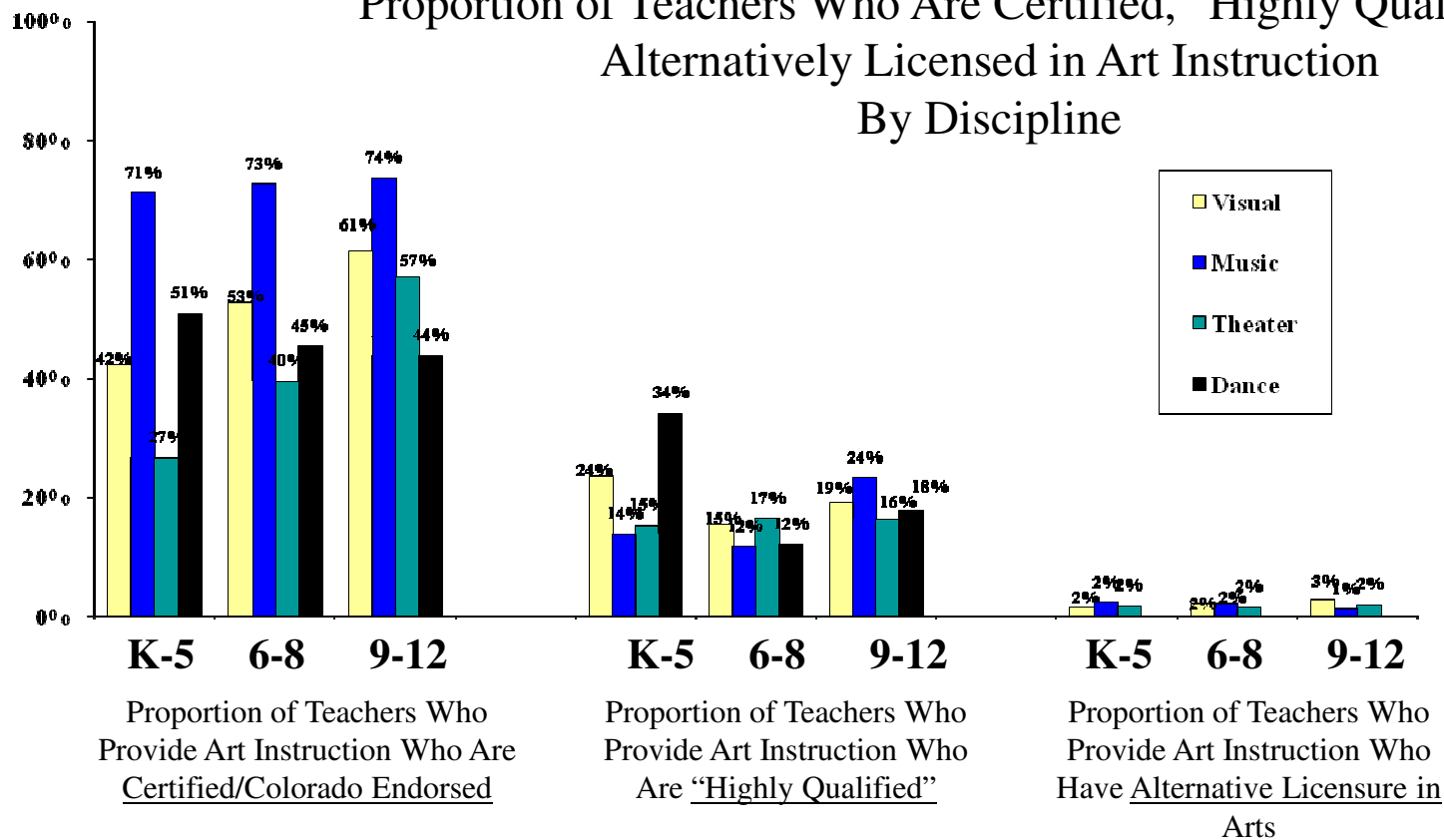
Level of Arts Education in Colorado Schools

Teachers At School Who Provide Instruction In Arts Discipline (n=435)

Q6: What is the total number of teachers at your school (please use Full-Time Equivalent if necessary):

Q7: Of those teachers (FTE), please tell us how many of them provide formal instruction in an arts discipline:

Proportion of Teachers Who Are Certified, “Highly Qualified,” or Alternatively Licensed in Art Instruction
By Discipline



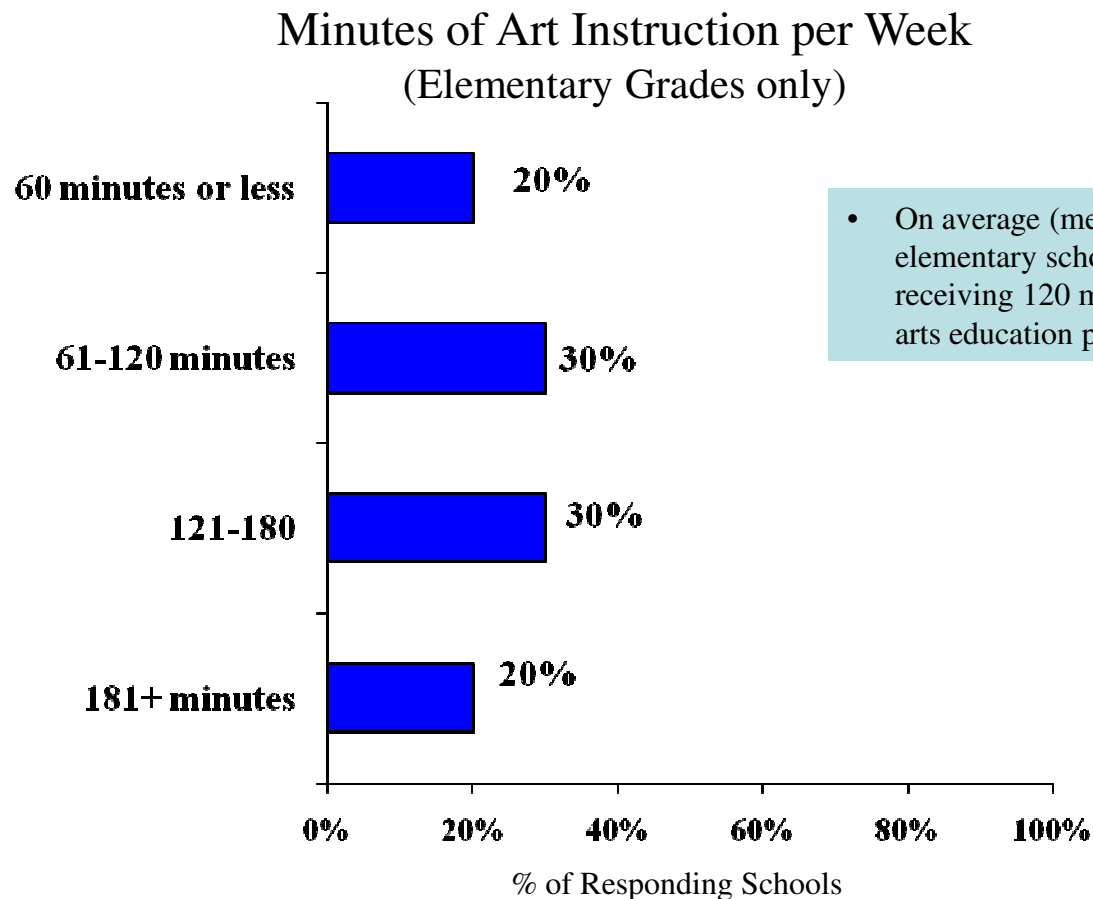
- Teachers providing music education are typically Certified (Colorado Endorsed).
- Few elementary schools (12%; not shown) offer arts education only by the general elementary school teachers. We can estimate that 53,000 elementary school students are not obtaining their arts education through an arts specialist.

Level of Arts Education in Colorado Schools

Instruction Time Per Week

(n=224)

Q9: For students who receive art instruction (any arts discipline), how many minutes of instruction do they receive each week? (Schools with Elementary Grades, K-6 only)

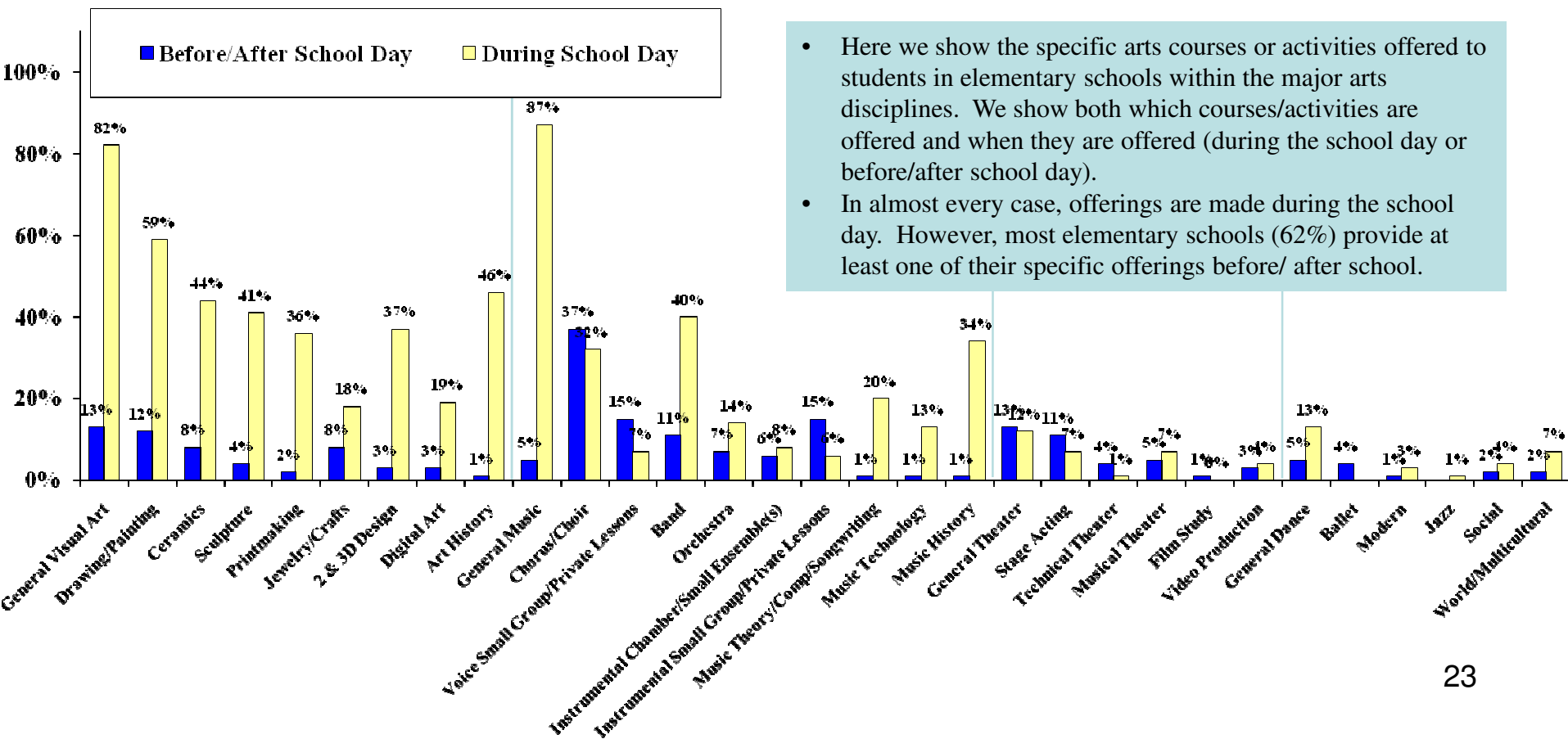


Level of Arts Education in Colorado Schools

Specific Arts Courses (n=295)

Q10a: Some schools provide a variety of arts courses or classes within some or all of the four arts disciplines. Please tell us if your school provides any of the following to students, either as part of the normal school day, or before/after school hours:

Elementary Schools



- Here we show the specific arts courses or activities offered to students in elementary schools within the major arts disciplines. We show both which courses/activities are offered and when they are offered (during the school day or before/after school day).
- In almost every case, offerings are made during the school day. However, most elementary schools (62%) provide at least one of their specific offerings before/ after school.

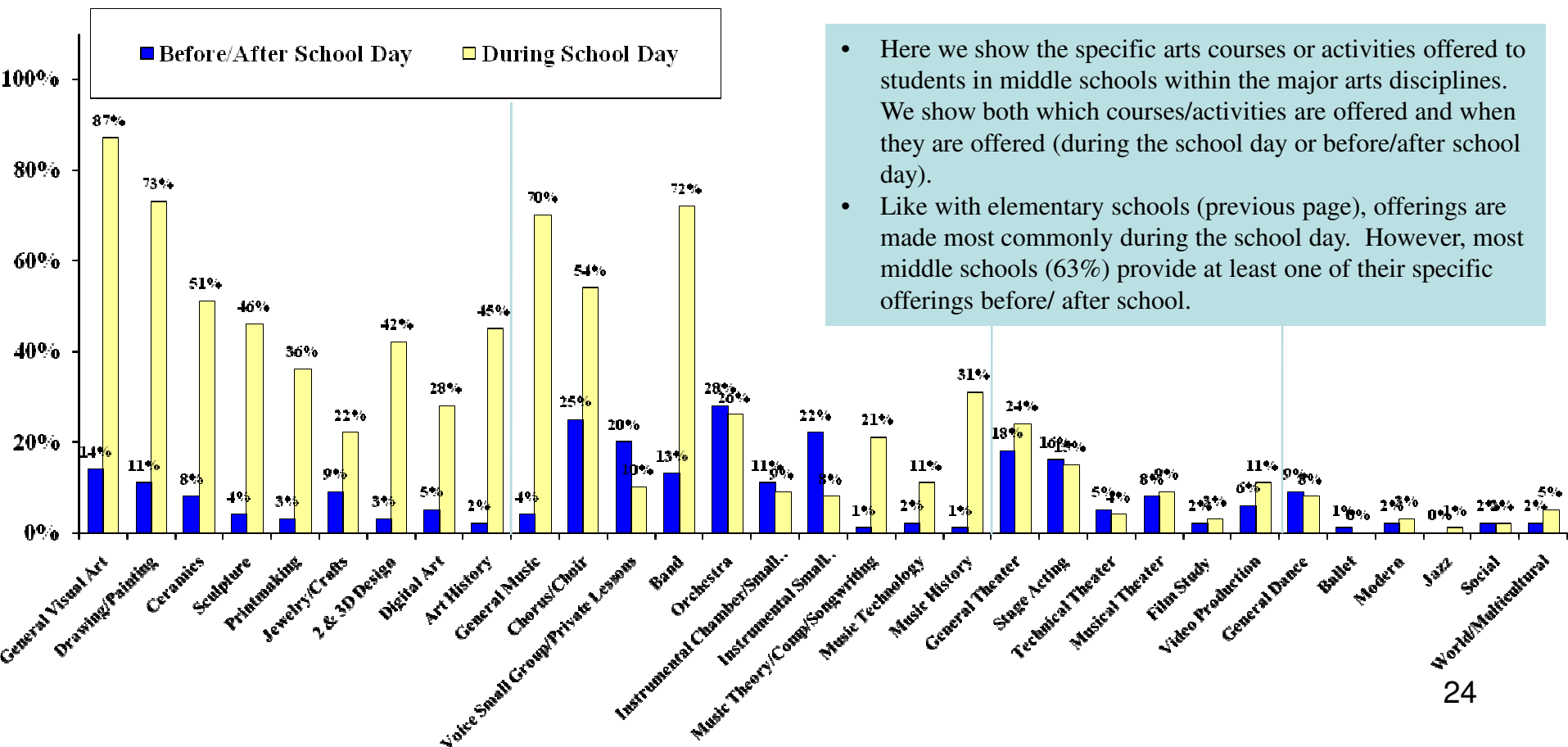
Level of Arts Education in Colorado Schools

Specific Arts Courses

(n=192)

Q10a: Some schools provide a variety of arts courses or classes within some or all of the four arts disciplines. Please tell us if your school provides any of the following to students, either as part of the normal school day, or before/after school hours:

Middle Schools



- Here we show the specific arts courses or activities offered to students in middle schools within the major arts disciplines. We show both which courses/activities are offered and when they are offered (during the school day or before/after school day).
- Like with elementary schools (previous page), offerings are made most commonly during the school day. However, most middle schools (63%) provide at least one of their specific offerings before/ after school.

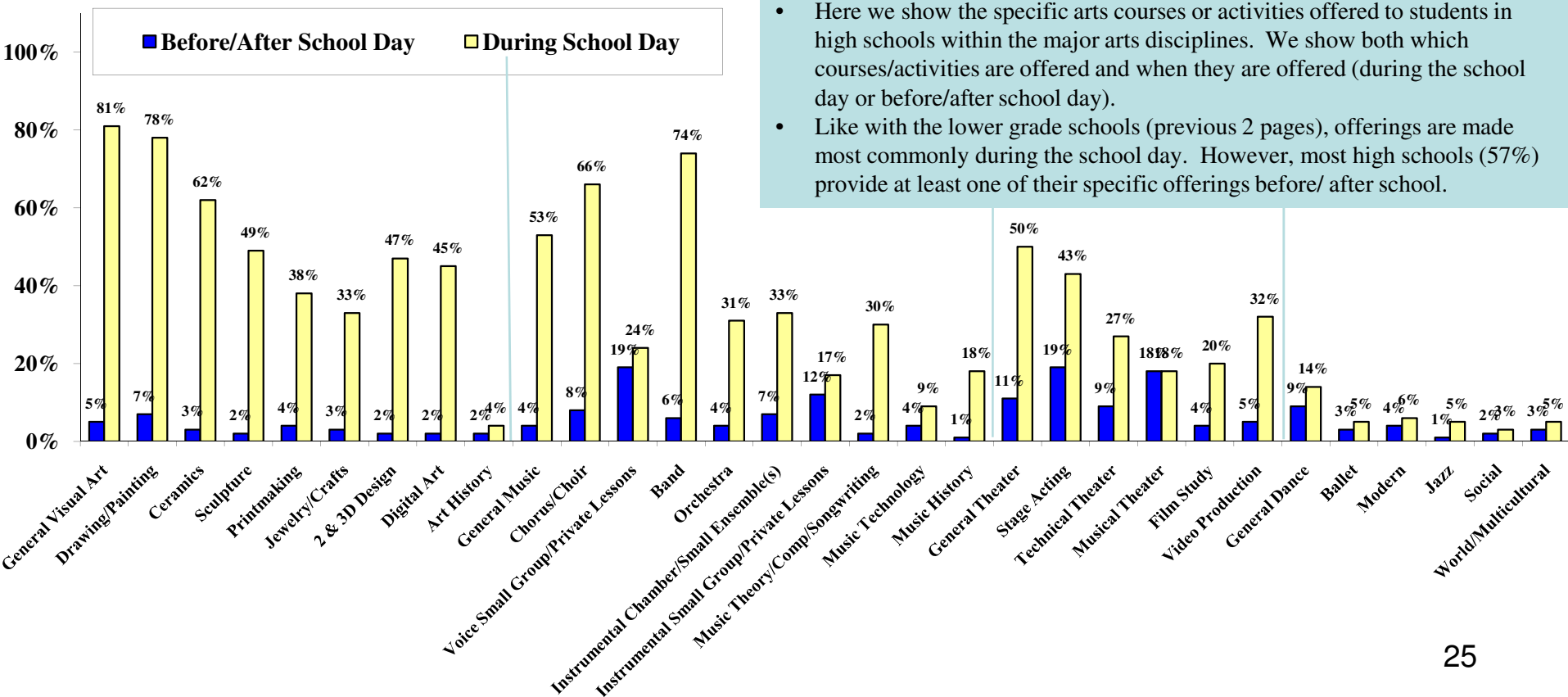
Level of Arts Education in Colorado Schools

Specific Arts Courses

(n=131)

Q10a: Some schools provide a variety of arts courses or classes within some or all of the four arts disciplines. Please tell us if your school provides any of the following to students, either as part of the normal school day, or before/after school hours:

High Schools



- Here we show the specific arts courses or activities offered to students in high schools within the major arts disciplines. We show both which courses/activities are offered and when they are offered (during the school day or before/after school day).
- Like with the lower grade schools (previous 2 pages), offerings are made most commonly during the school day. However, most high schools (57%) provide at least one of their specific offerings before/ after school.

**Policies, Practices &
Perceptions Which Impact Arts
Education Levels**

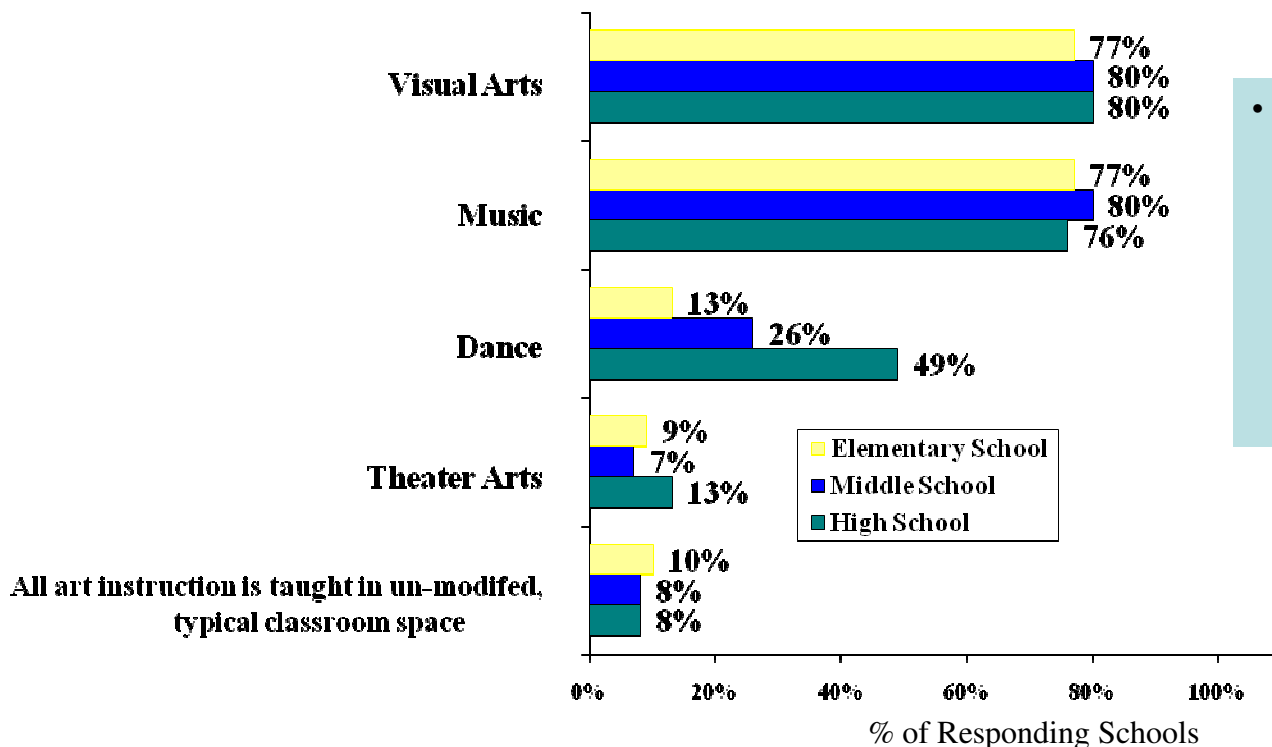
Policies, Practices & Perceptions

Dedicated Classrooms For Arts Instruction

(n=435)

Q11: Does your school have properly-equipped dedicated or multi-purpose classrooms for arts instruction in...? (Please check all that apply)

Proportion of Schools With Properly-Equipped Classrooms for Arts Instruction



- The lack of properly equipped instructional space does not seem to be a widespread problem within Colorado schools. About nine-in-ten schools have some space modified to meet the needs of art instruction (mostly Visual Arts and Music).

Policies, Practices & Perceptions

Curriculum, Supervision, & Assessment

(n=435)

Q12: Who is responsible for a) arts curriculum development, b) supervision of arts program, and c) development of student assessment in the arts at your school?

Highest Supervisory Level of Person Responsible for Curriculum Development,
Supervision of Arts Program, and /or Development of Student Assessment

(Mutually exclusive groups)

	School-Based Supervisor			District-Based Supervisor		
	Curriculum Development	Supervision of Arts Program	Development of Student Assessment	Curriculum Development	Supervision of Arts Program	Development of Student Assessment
Elementary	50%	46%	10%	37%	22%	26%
Middle	52%	46%	11%	36%	21%	28%
High	46%	45%	15%	27%	23%	24%

- The lack of properly equipped instructional space does not seem to be a widespread problem within Colorado schools. About nine-in-ten schools have some space modified to meet the needs of art instruction (mostly Visual Arts and Music).

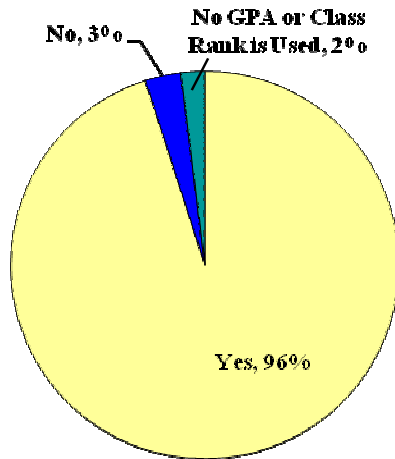
Policies, Practices & Perceptions

Grade Point Average (High Schools Only, n=131)

Q13: Is student performance in arts classes used in the calculation of grade point average or class rank?

Student Performance in Art Used in GPA/Class Rank

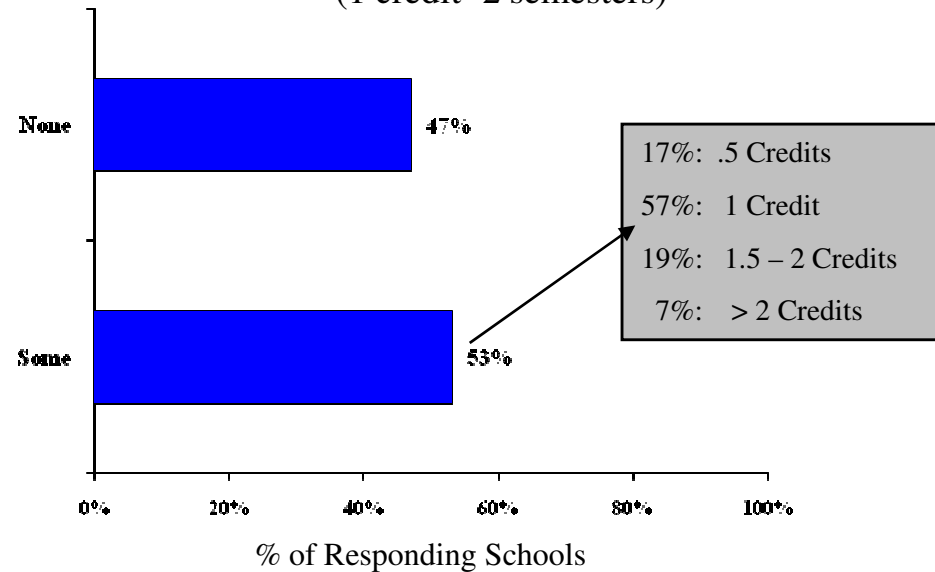
% of Schools Which Use



Q14: What are the local graduation requirements for the arts?

Local Graduation Requirement

(1 credit=2 semesters)



- Schools with some arts credit graduation requirement have a higher number of arts courses than those without a graduation requirement. The existence of a graduation arts credit requirement is *not* related, however, to the number of high school students participating in arts courses.

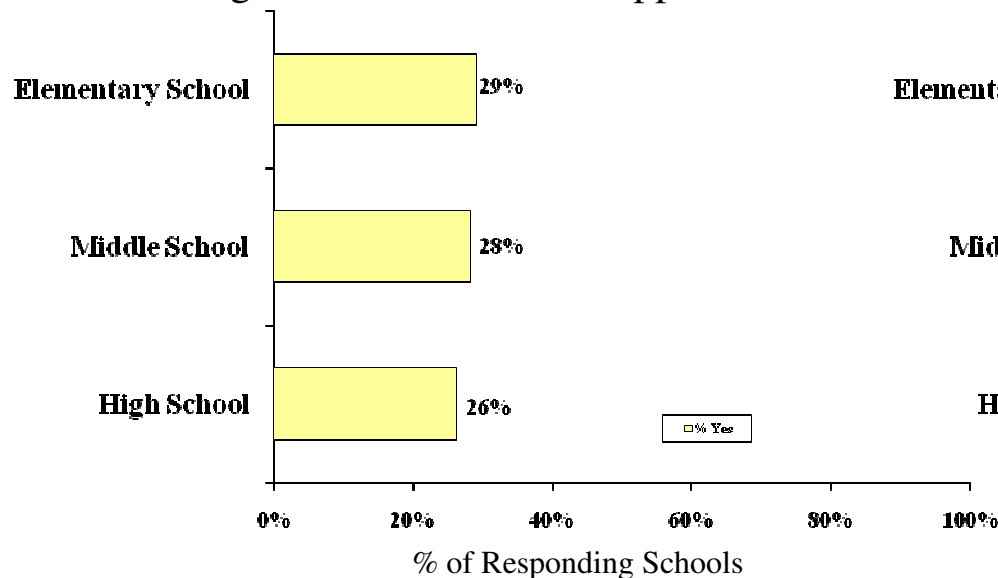
Policies, Practices & Perceptions

Outside Funding

(n=435)

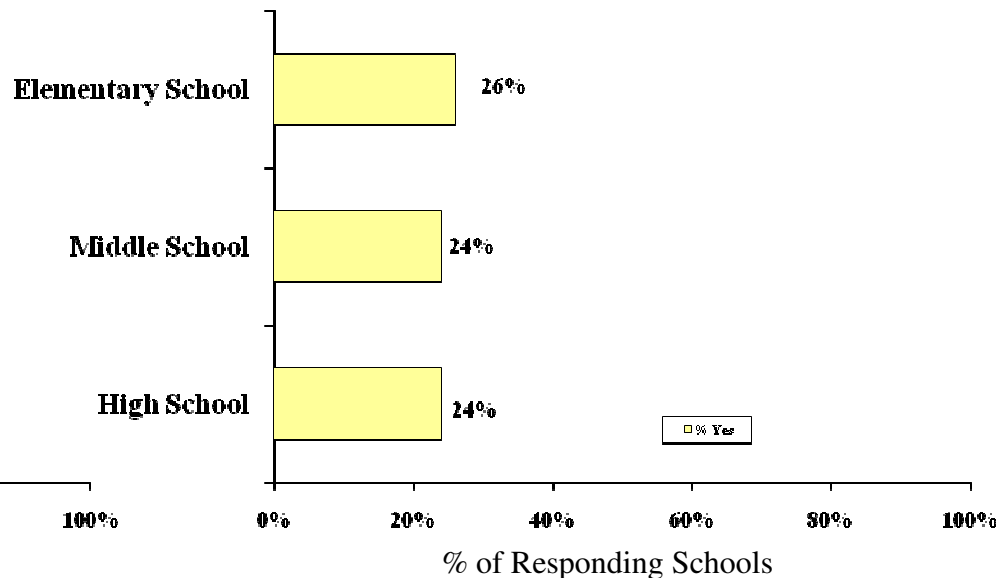
Q16: In the previous school year, did your school receive funding from a source outside of the school district to support arts education?

Proportion of Schools Which Receive Outside Funding for Arts Education Support



Q17b: Does your school have a formal partnership with one or more area arts organizations or institutions to enhance art instruction for students?

Proportion of Schools Which Partner With Arts Organization(s)/Institution(s)



- Schools with partnerships with arts organizations are twice as likely to receive outside funding as those with no partnerships. It is likely that funding facilitates those partnerships, and *vice versa*.

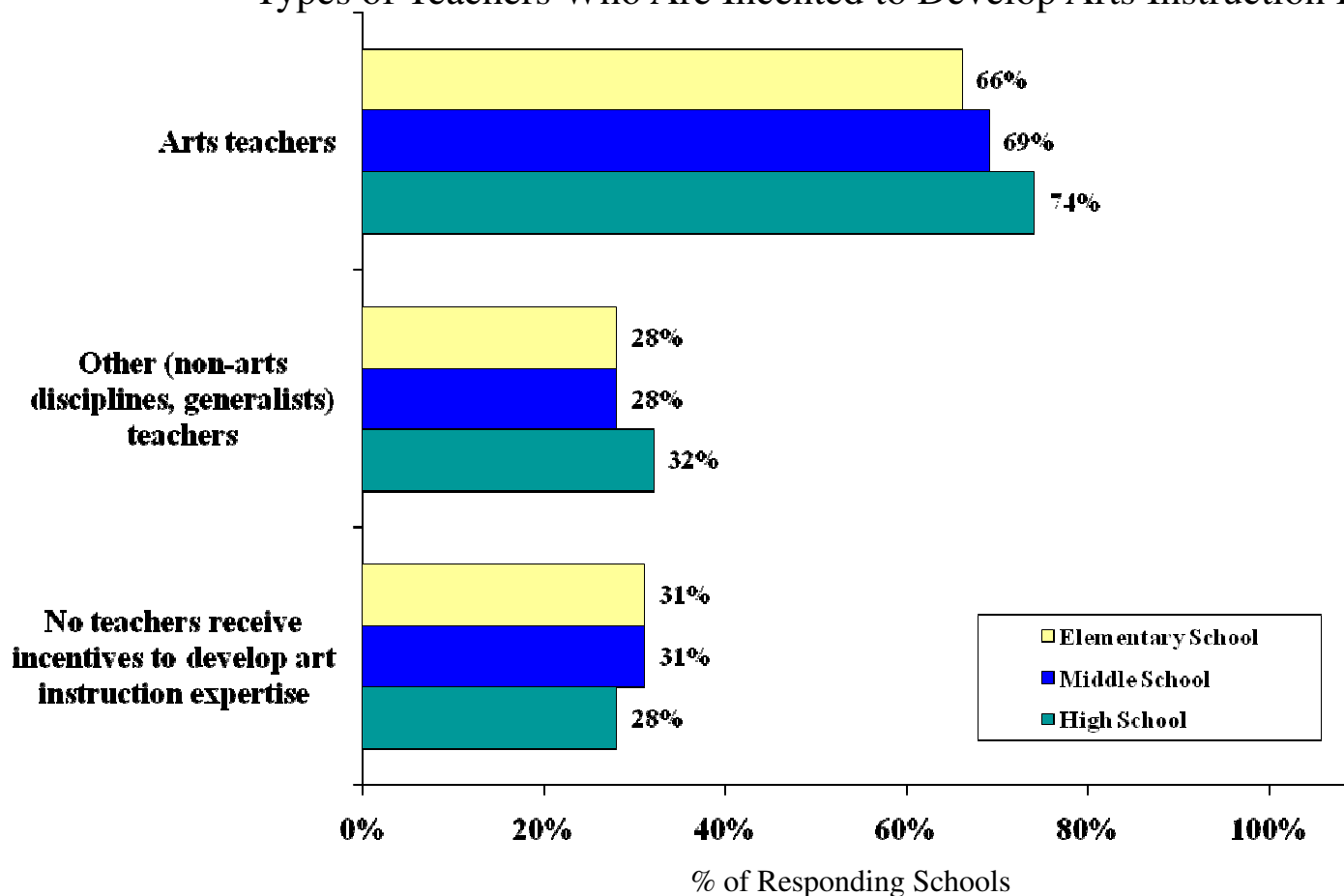
Policies, Practices & Perceptions

Teacher Development

(n=435)

Q18: Which teachers are encouraged through incentives (time off to participate, professional development credits, etc.) to develop their arts instruction expertise? (please check all that apply)

Types of Teachers Who Are Incented to Develop Arts Instruction Expertise



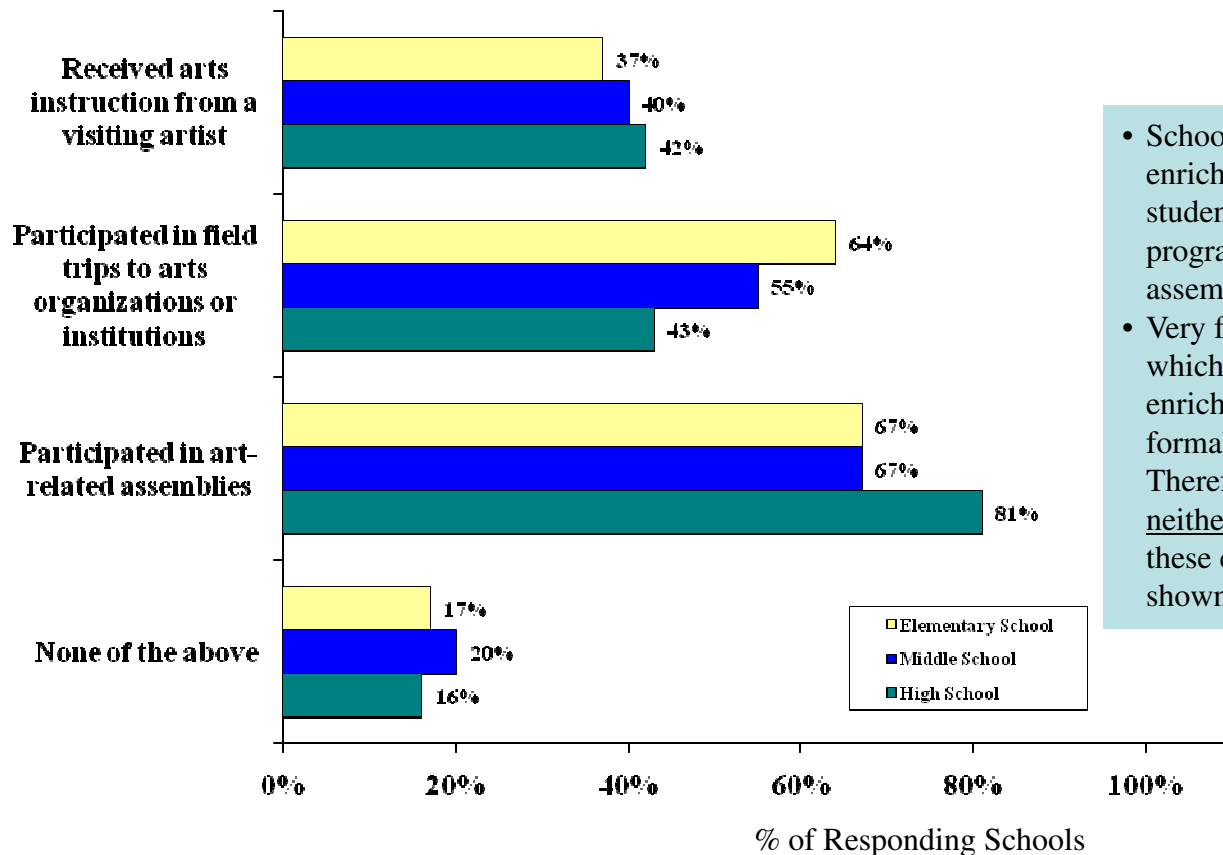
Policies, Practices & Perceptions

Student Participation

(n=435)

Q17: In the previous school year, which of the following did any or all of your students participate in through your school? (Multiple response accepted).

Utilization of External Sources of Arts Education Enhancement Activities



- Schools commonly provide arts enrichment opportunities to students via visiting artists programs, field trips, and assemblies.
- Very few (only 12%) of the schools which offer none of these enrichment programs also offer no formal arts education. Therefore, only 2% of schools offer neither formal arts education nor these enrichment opportunities [not shown].

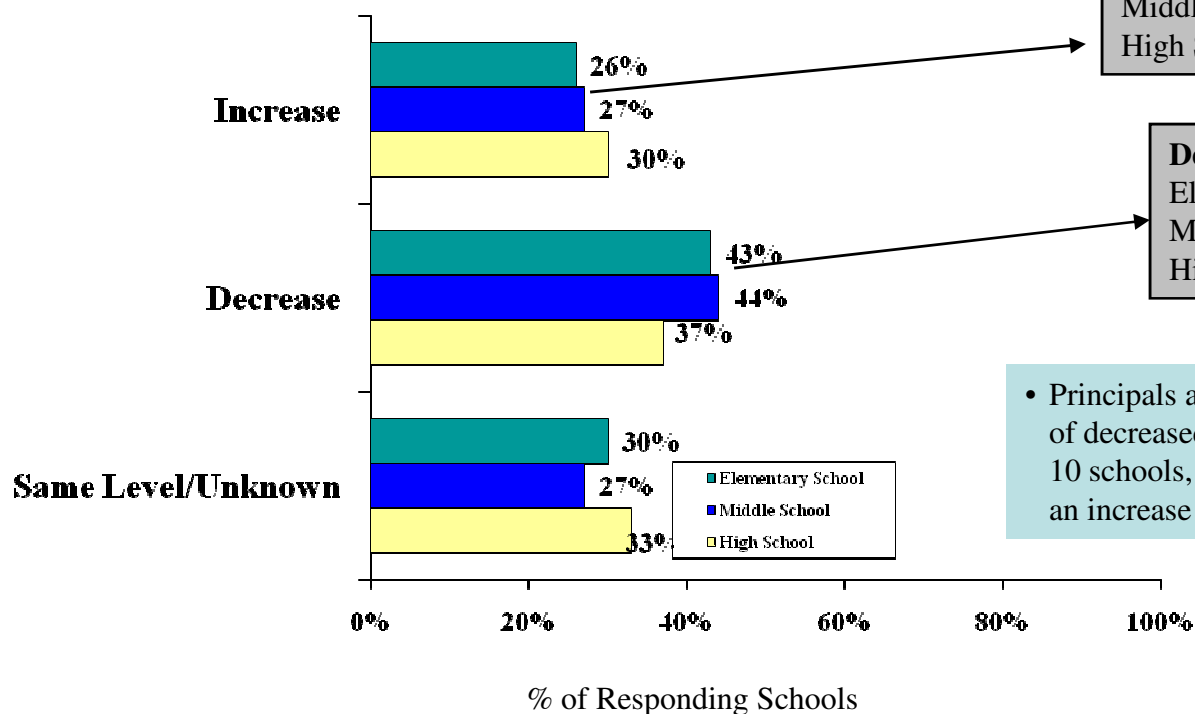
Policies, Practices & Perceptions

Budget Allocation

(n=435)

Q15: How would you describe the total budget allocation for arts education in your school compared to 5 years ago? Would you say it has increased, decreased, or stayed about the same?

Change In Funding Levels
Past Five Years



Increase Proportion:
 Elementary School: Median of 20%
 Middle School: Median of 20%
 High School: Median of 15%

Decrease Proportion:
 Elementary School: Median of 20%
 Middle School: Median of 10%
 High School: Median of 20%

• Principals are more likely to report a recent trend of decreased funding for arts education (about 4 in 10 schools, regardless of student level) than either an increase or *status quo*.

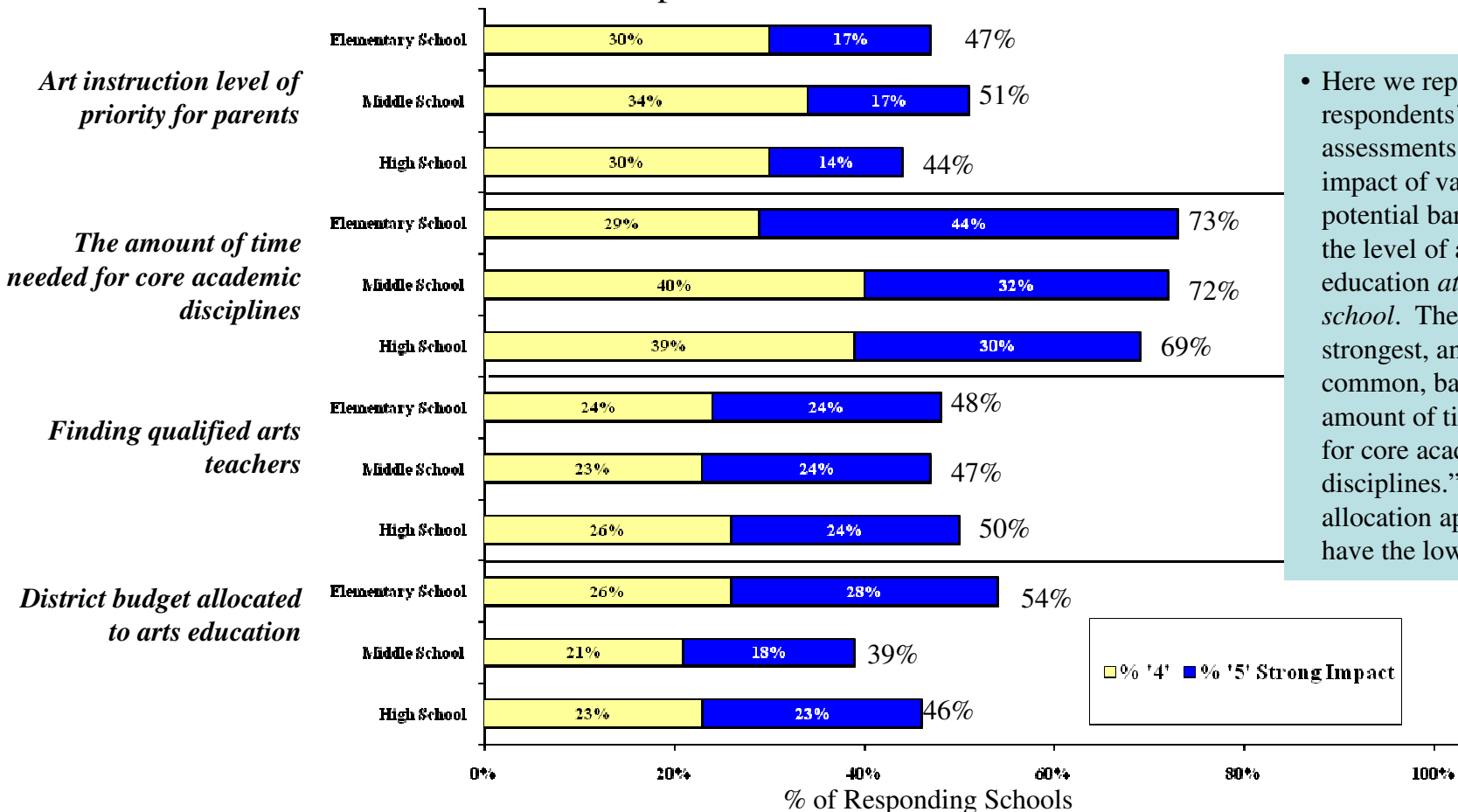
Policies, Practices & Perceptions

Impact on Level of Arts Education

(n=435)

Q19: Please tell us your opinion on how each of the following impacts the level of arts education in your school. Please use a '1' to '5' scale, where '1' means that factor has 'No Impact' and '5' means that factor has a 'Strong Impact'.

Factors Which Impact Level of Arts Education in Schools

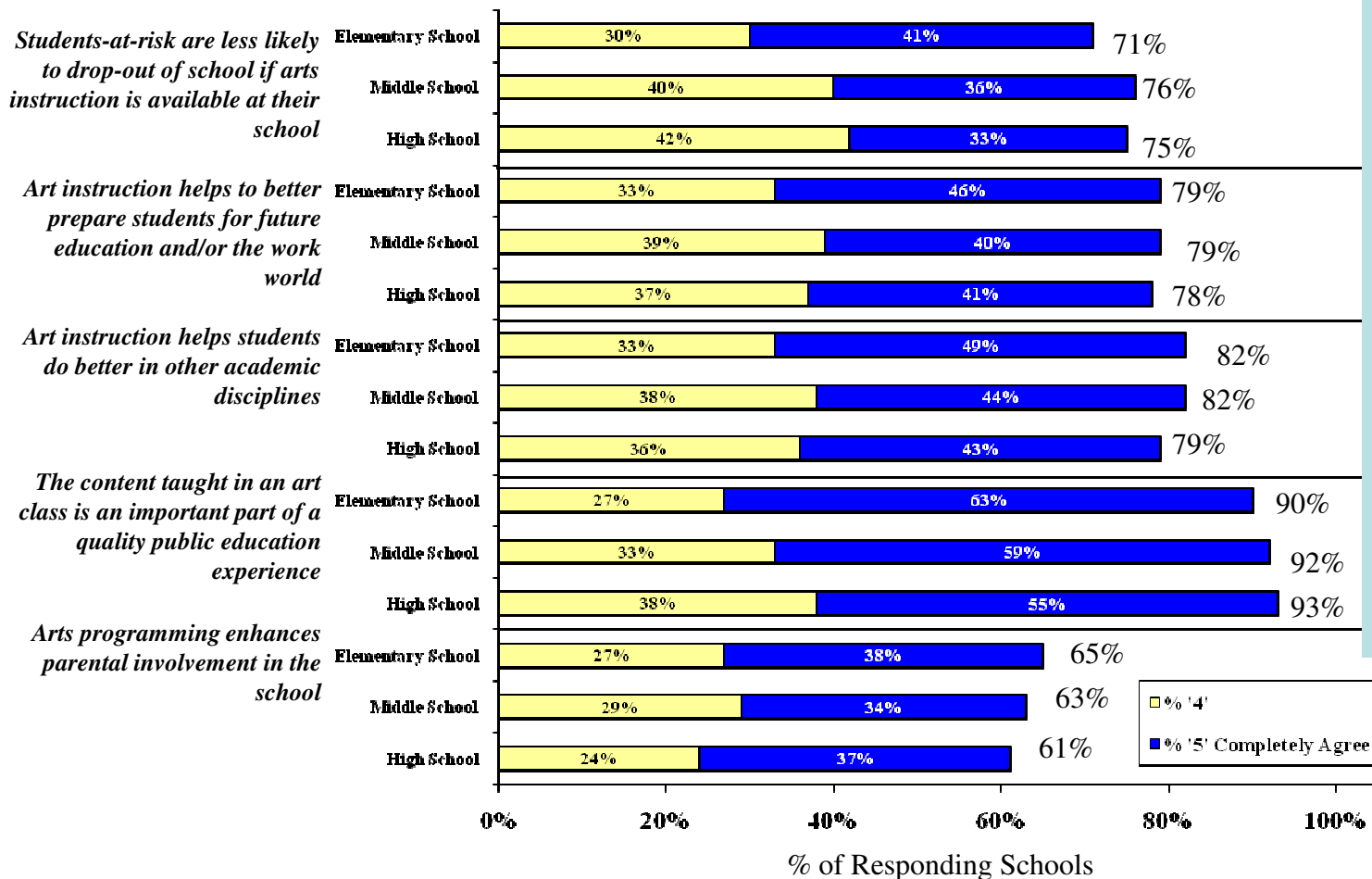


• Here we report respondents' assessments of the impact of various potential barriers on the level of arts education at their school. The strongest, and most common, barrier is "the amount of time needed for core academic disciplines." Budget allocation appears to have the lowest impact.

Policies, Practices & Perceptions

Impact on Level of Arts Education (n=435)

Q20: Based on your experience, please tell us your level of agreement or disagreement with the following:



• Here we report respondents' level of agreement with assertions regarding the connection between core academic success and arts education. Principals are in majority agreement with all of these assertions, and especially that art education "content...is an important part of a quality education experience." On the whole, respondents are in agreement that arts education should be an integral part of basic education.

**The “Arts Index:” Measuring
Levels of Art Education in Colorado
Public Schools**

The “Arts Index:” Measuring Arts Education

How Do We Measure Level of Arts Education?

One of the difficulties in examining arts education in school is determining what “art education” is. Without specific curriculum and assessment guidelines on a national or state level, public schools have generally been left to their own devices to determine what art education looks like in each school. They have reacted to the level of resources available to them, the appetite for arts education among parents, and the variety of external resources available to them (e.g., local arts and cultural institutions). We have found in other studies that the level of arts education is school-specific; schools within the same district can and do have not only vastly different levels of arts education, but also completely different approaches to achieving arts achievement among students. Some dedicate resources to breadth in arts education, offering basic art courses in a variety of arts disciplines. Others focus on one or two arts discipline (often visual arts or music), offering a variety of courses in those art disciplines. Other schools also focus on one or two arts disciplines, but choose to concentrate arts education in one or two grade levels.

With the understanding that schools have all developed their own “way” of ensuring a quality arts education for students, we measured art education in numerous ways in this study with the hopes of capturing the variety of ways that it is accomplished among Colorado schools. We then calculated an arts “index” for each school by summing all of the different opportunities a school could provide. A simple arithmetic combination of each opportunity was then created where the “index” is simply a compilation of each opportunity. In that way, a school which provides, for example, a great breadth of arts courses, but not to all grades, is deemed “as good as” a school which provides basic art education to all grade levels. In sum, we do not judge any approach as “better” than another; but, schools which offer *more* opportunities obtain a larger “index” than a school which offers fewer opportunities. The factors which make up the index are as follows:

- Existence of *formal* arts education (as opposed to non-graded extra-curricular opportunities);
- Breadth of arts education (in terms of number of arts disciplines offered);
- Span of arts education, in terms of proportion of grades in school which receive arts education;
- Breadth of student population which receives art education;
- Use of arts specialists for arts education;
- Amount of time dedicated to arts education per week (elementary schools only);
- Breadth of arts education in terms of variety of courses (curricular and extra-curricular) offered;
- Use of properly equipped classrooms for each arts discipline offered;
- Curriculum Planning/assessment design done by school or district supervisor;
- Arts achievement included in GPA calculations (high schools only);
- Existence of arts credit graduation requirement (high schools only);
- Provision of arts enrichment opportunities (field trips, assemblies, visiting artists);
- Partnerships with local arts institutions;
- Use of incentives for teachers to obtain arts education development.

The “Arts Index:” Measuring Arts Education

How Do We Measure Level of Arts Education?

With this index we can perform more complicated analyses. In this section we examine differences in level of arts education, as indicated by our index, among the following groups:

- School Setting (Urban/Suburban/Rural)
- School Size (Number of students)
- School Type (Grade Level)
- Colorado Region
- Racial Composition of School
- Community (District) Socioeconomic Status

With this index we can also examine the relationship between level of arts education and other measures of student performance, including math, reading, writing, and science student proficiency.

The “Arts Index:” Measuring Arts Education

Comparisons Among Groups

Arts Education Index, By School Setting (Urban/Suburban/Rural)

	# of Schools	Mean Index
Urban/Suburban	83	0.568
Denver Metro	148	0.557
Outlying Town	78	0.511
Rural	64	0.503
Outlying City	42	0.493

- Schools in Colorado’s Urban/Suburban and Denver Metro districts had significantly higher mean index scores than schools in the other settings (F=4.12; p<.003).

The “Arts Index:” Measuring Arts Education

Comparisons Among Groups

Arts Education Index, By Colorado Region Elementary only

	# of Schools	Mean Index
Metropolitan	95	0.556
West Central	15	0.538
North Central	42	0.522
Pikes Peak	51	0.508
Northeast	25	0.497
Northwest	23	0.491
Southeast	12	0.445
Southwest	20	0.427

- Schools in Colorado’s Metropolitan, West Central and North Central regions had significantly higher mean index scores than schools in the other regions ($F=3.67$; $p<.003$). Note that this is true for elementary schools only. For middle and high schools, there were no significant differences in arts index among regions.

The “Arts Index:” Measuring Arts Education

Comparisons Among Groups

Arts Education Index, By School Size (Number of students)

- For high schools only, arts index is positively correlated ($r=.324$, $p<.005$) with school size, in terms of number of students. In other words, larger high schools tended to have higher arts indices. This relationship was not found for elementary and middle schools.

Arts Education Index, By Race and Socioeconomic Status of Student Population

- Regardless of school type (elementary, middle, or high school), there was no statistical relationship (correlation) between arts index and racial composition or socioeconomic status of students.

The “Arts Index:” Measuring Arts Education

Comparisons Among Groups

Arts Education Index, By School Type (Grade Level)

	# of Schools	Mean Index
Elementary only	168	0.503
Middle School only	54	0.523
High School Only	81	0.584
Elem/Middle mix	88	0.549
Middle/High mix	11	0.629
Elem/Middle/High	39	0.525

- High schools had the highest average arts index, followed by middle schools and then elementary schools. This difference is statistically significant ($F=4.08$, $p<.001$).

The “Arts Index:” Measuring Arts Education

Comparisons Among Groups

Arts Index Relationship with Student Performance

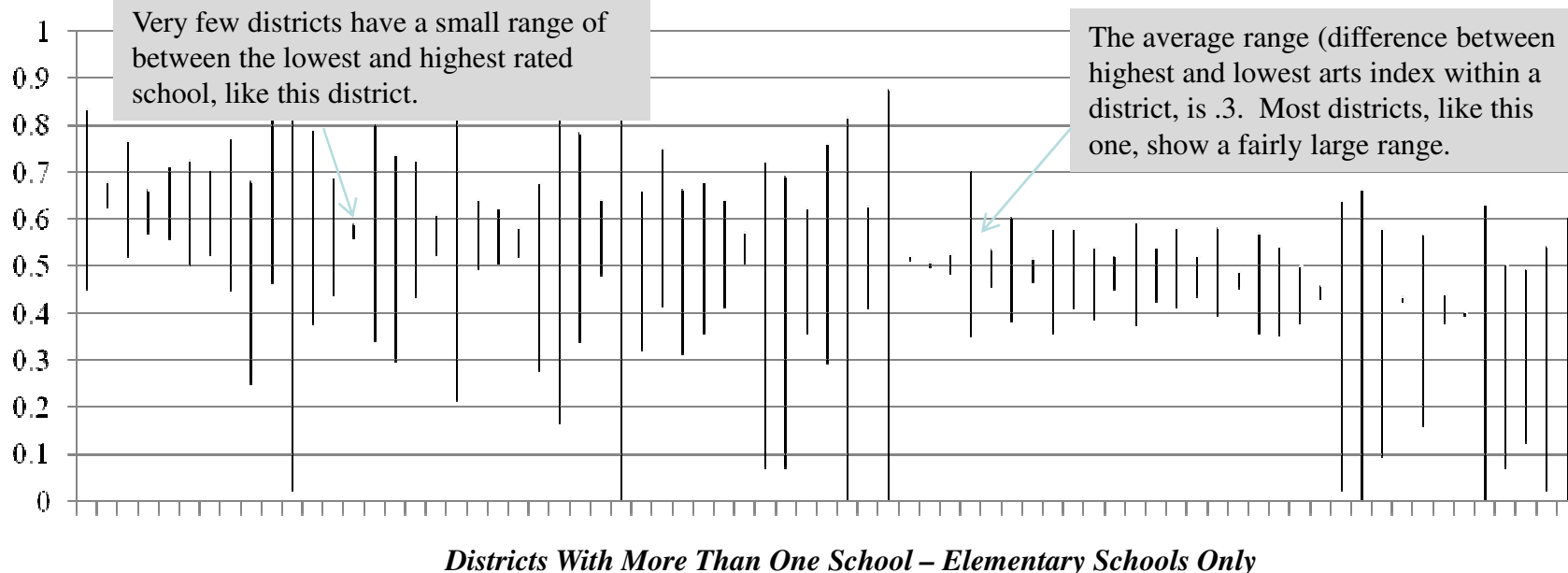
- Controlling for racial composition of student population, and socioeconomic status of student population, we found that arts index was positively correlated with proficiency test scores (high school level) for writing ($t=2.31$; $p<.02$), reading ($t=3.6$; $p<.01$), and science ($t=2.31$; $p<.02$). Schools’ art index was not statistically related, however to math proficiency scores. In sum, schools with higher arts index tended to have higher writing, reading, and science proficiency rates, regardless of the racial composition or socioeconomic status of the students.

Arts Index Relationship with Student Attrition (Drop-Out Rates)

- Controlling for racial composition of student population, and socioeconomic status of student population, we found that arts index was *negatively* correlated with school drop-out rates (high school level) ($t=3.82$; $p<.0001$). Racial composition and socioeconomic status were not statistically related to arts index in this multivariate model, which drop-out rate was: high schools with higher index had lower drop-out rates. The simple (Pearson’s) correlation statistic for school index and drop-out rate is $-.284$ ($p<.0001$).

The “Arts Index:” Measuring Arts Education

Index Variability Within Districts

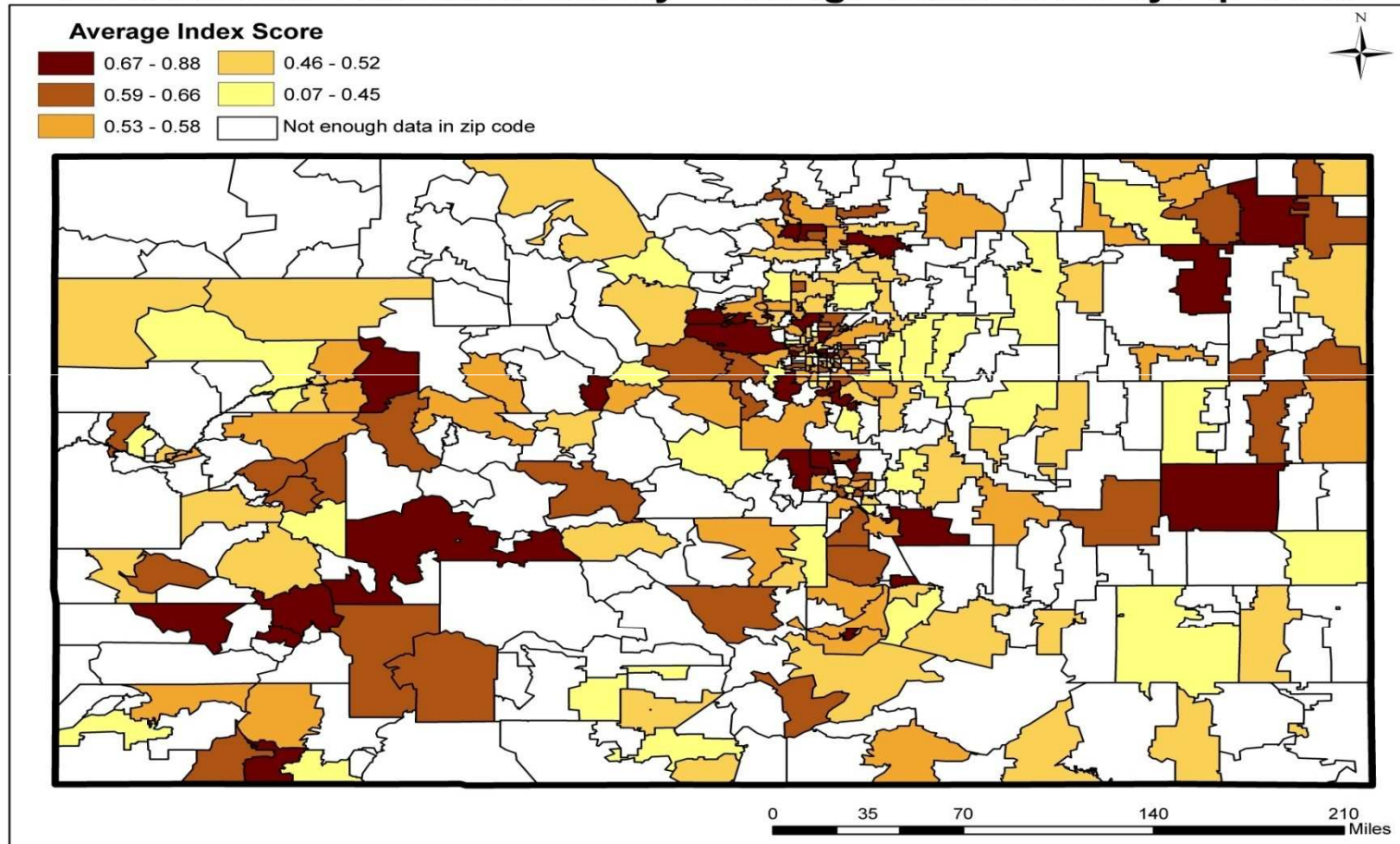


- If the amount of arts education in schools were simply a reflection of budget, or proximity to arts and cultural institutions, we would expect to see consistency in the level of arts education (as measured by our index) within school districts (since budget and geographic proximity to arts and cultural institutions will be somewhat stable within school districts). We don't see that, however, as shown above. Here we report the average index score, by school district, and the range of arts indices within those districts. To control for school type, we present only elementary school data. Here we see great variability in indices within school districts, suggesting some other influence impacting the level of arts education within each school. It could be a function of individual choice by school administrators at each school, which is likely impacted by historical patterns of arts education at the school, the desire of parents of students in the school, the likelihood of parents expressing those desires, *and* the guidance offered by district leadership.

The “Arts Index:” Measuring Arts Education

State-Wide Patterns

Colorado Arts Education Survey - Average Index Score by Zip Code



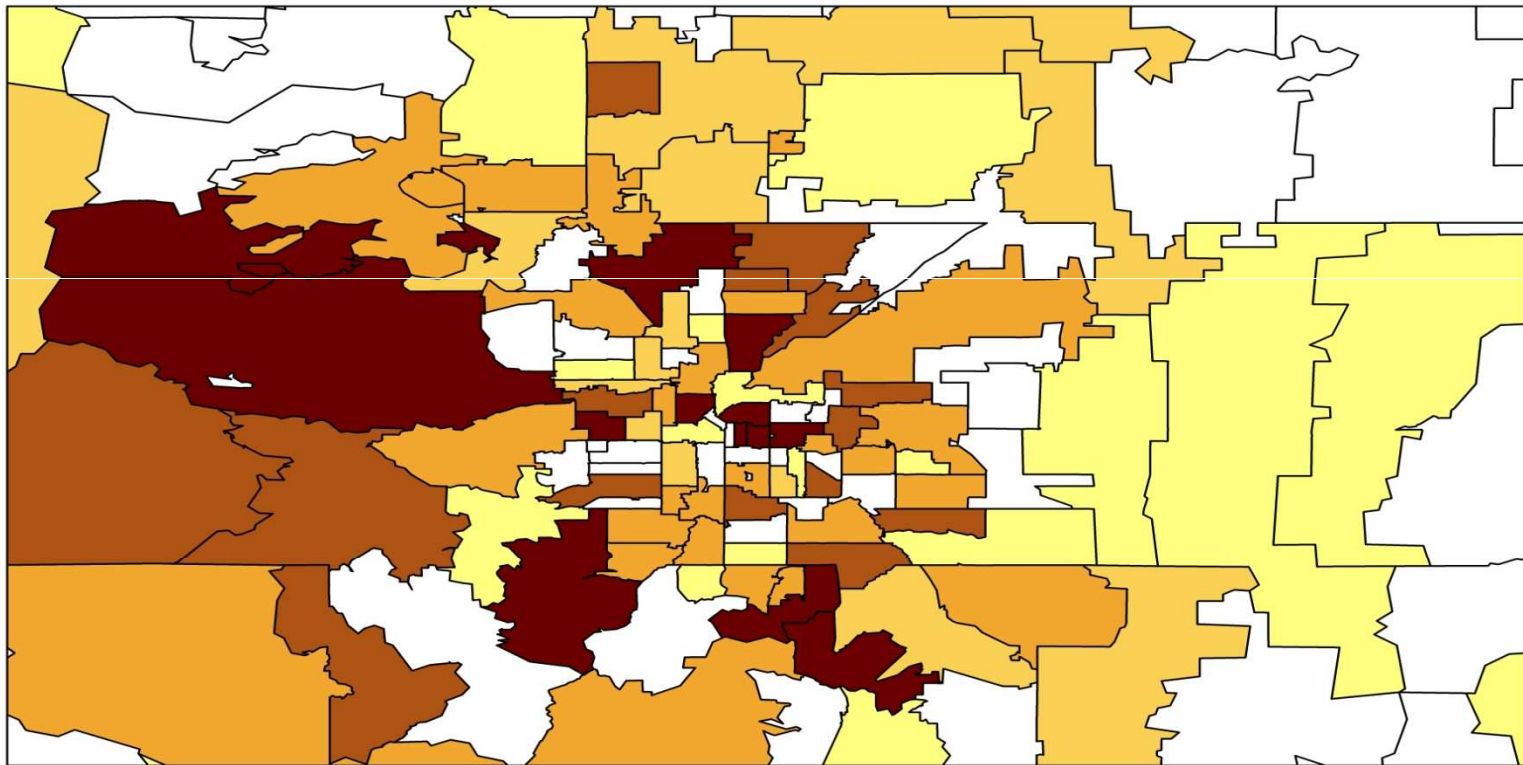
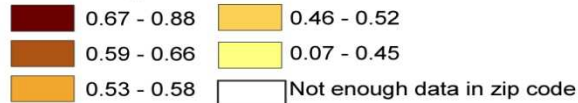
- Here we show the average index score, for all schools, within zip codes (a more detailed look than district-level data). The darker zip codes are those with higher average index scores, and the lighter zip codes are those with lower average index scores. Those with blank (white) zip codes are those without enough data to quantify index levels.

The “Arts Index:” Measuring Arts Education

Denver Area Patterns

Colorado Arts Education Survey - Average Index Score by Zip Code

Average Index Score



- Here we show a closer look at the average index score, for all schools, within Denver area zip codes (a more detailed look than district-level data). The darker zip codes are those with higher average index scores, and the lighter zip codes are those with lower average index scores. Those with blank (white) zip codes are those without enough data to quantify index levels.



Appendix

Survey Invitation Letter District

November 27, 2007

Dear Principal:

As you read in the Commissioner's letter, the Colorado Council on the Arts, a division of the Governor's Office, is working with the Colorado Department of Education to assess the level of arts education in Colorado schools.



To do this, we need your help. We understand that many schools approach arts education differently, and we want to capture all the different strategies used in Colorado. The enclosed survey form was designed to identify the level and type of arts education offered in your school. This survey has been reviewed and approved for distribution by the Colorado Department of Education Educational Data Advisory Committee (EDAC).

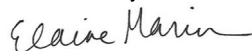
Please note the following:

- We understand that not all public schools offer arts education, and instead have other priorities. If that is true for your school, please indicate that on the survey (question 2) and complete the few remaining questions. We are still interested in your opinions regarding arts education.
- Some of the information asked for in the survey may not be readily available; in that case, please provide your best guess estimates.
- All information will be held completely confidential. Only you and the research analyst, who is a third party separate from the State, will have access to your data. All data will be analyzed and reported in the aggregate.
- As a thank-you to all schools who participate, you will receive a customized benchmarking report comparing your school to all others.

Specific directions for questionnaire completion are showed in the introductory paragraph of the survey.

Please do not hesitate to contact Pat Cirillo, Ph.D., (the project's team leader) if there are any questions, concerns or problems related to the survey. Pat can be reached at pat@cypress-research.com

Most Sincerely,



Elaine Mariner
Executive Director

School Response Rates, By District

School District	Proportion	School District	Proportion	School District	Proportion
Academy 20	23% (7 out of 31)	Falcon District 49	12% (2/17)	Park County RE-2	20% (1/5)
Adams 12 Five Star Schools	20% (10/50)	Fort Morgan RE-3	63% (5/8)	Peyton 23JT	33% (1/3)
Adams Arapahoe 28J	17% (9/52)	Fountain 8	18% (2/11)	Plateau RE-5	100% (2/2)
Adams County School District #14	60% (9/15)	Fowler R-4J	100% (3/3)	Plateau Valley 50	25% (1/4)
Agate 300	100% (2/2)	Frenchman RE-4	100% (2/2)	Platte Canyon 1	67% (2/3)
Alamosa RE-11J	33% (2/6)	Garfield RE-2	44% (4/9)	Platte Valley RE-2	25% (1/4)
Arickaree R-2	100% (2/2)	Gilpin County RE-1	100% (2/2)	Poudre R-1	17% (9/52)
Arriba-Flagler	100% (3/3)	Greeley 6	23% (7/30)	Pritchett RE-3	100% (3/3)
Aspen 1	20% (1/5)	Gunnison Watershed RE1J	14% (1/7)	Pueblo City 60	18% (7/38)
Bennett 29J	20% (1/5)	Hanover 28	100% (2/2)	Pueblo County Rural 70	33% (8/24)
Big Sandy 100J	100% (3/3)	Harrison School District	4% (1/26)	Rangely RE-4	67% (2/3)
Boulder Valley RE 2	24% (13/54)	Hinsdale County RE1	100% (1/1)	Ridgway R-2	33% (1/3)
Branson Reorganized 82	25% (1/4)	Holyoke RE-2J	100% (2/2)	Roaring Fork RE-1	25% (3/12)
Briggsdale RE-10	100% (2/2)	Huerfano RE-1	20% (1/5)	Rocky Ford R-2	50% (2/4)
Brighton	6% (1/18)	Idalia RJ3	100% (2/2)	Salida R-32	67% (2/3)
Brush RE-2J	25% (1/4)	Ignacio 11 JT	60% (3/5)	Sanford 6J	50% (1/2)
Buena Vista R-31	25% (1/4)	Jefferson County R-1	12% (20/162)	Sangre De Cristo RE-22J	50% (1/2)
Buffalo RE-4	100% (2/2)	Julesburg RE-1	50% (1/2)	Sargent RE-33J	67% (2/3)
Burlington RE 6-J	67% (2/3)	Karval RE 23	33% (1/3)	Sheridan 2	60% (3/5)
Canon City RE-1	40% (4/10)	Keenesburg RE-3	17% (1/6)	South Routt RE-3	25% (1/4)
Centennial R-1	100% (3/3)	Kiowa County RE-2	33% (1/3)	St. Vrain Valley RE 1J	26% (11/43)
Charter School Institute	29% (4/14)	Kit Carson R1	100% (2/2)	Steamboat Springs RE-2	20% (1/5)
Cheraw 31	100% (3/3)	Lake County R-1	50% (2/4)	Strasburg 31J	67% (2/3)
Cherry Creek 5	15% (8/55)	Lamar RE-2	43% (3/7)	Stratton	100% (3/3)
Cheyenne Mountain 12	60% (6/10)	Las Animas	20% (1/5)	Summit RE-1	50% (4/8)
Clear Creek	80% (4/5)	LaVeta RE-2	50% (1/2)	Swink 33	100% (2/2)
Colorado Springs 11	14% (9/64)	Lewis-Palmer 38	56% (5/9)	Telluride R-1	33% (1/3)
Creede Consolidated	50% (1/2)	Liberty J-4	100% (2/2)	Thompson R-2J	27% (8/30)
Custer County School District C-1	33% (1/3)	Limon RE 4-J	50% (1/2)	Trinidad 1	25% (1/4)
Delta County 50(J)	35% (7/20)	Littleton 6	12% (3/25)	Valley RE-1	50% (4/8)
Denver County 1	17% (26/150)	Manitou Springs 14	25% (1/4)	Vilas RE-5	40% (2/5)
Dolores RE-4A	75% (3/4)	Meeker RE-1	100% (3/3)	Weld County RE-1	33% (2/6)
Douglas County RE 1	21% (15/72)	Mesa County Valley 51	17% (7/42)	Weld County S/D RE-8	50% (2/4)
Durango 9-R	27% (3/11)	Miami/Yoder 60 JT	100% (3/3)	West End RE-2	100% (3/3)
Eagle County RE 50	11% (2/18)	Monte Vista C-8	67% (4/6)	Westminster -50	18% (4/22)
East Grand 2	83% (5/6)	Montezuma-Cortez RE-1	60% (6/10)	Widefield School District	12% (2/17)
Eaton RE-2	60% (3/5)	Montrose County RE-1J	21% (3/14)	Windsor RE-4	57% (4/7)
Elizabeth C1	38% (3/8)	North Park R-1	100% (2/2)	Woodland Park RE-2	40% (2/5)
Ellicott 22	100% (3/3)	Norwood R-2J	100% (2/2)	Wray RD-2	100% (3/3)
Englewood 1	60% (6/10)	Otis R-3	100% (2/2)	Yuma 1	25% (1/4)