

**Madeira City Schools
Planning Commission Study**

**“Consideration of the Grading Scale and
Related Academic Designations for the
Madeira Schools”**

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Planning Commission Committee:

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**Consideration of the Grading Scale and Related Academic Designations for
the Madeira Schools**

PURPOSE

The Grading Scale Committee of the Madeira School Planning Commission was assembled in order to evaluate the district's current grading scale in comparison with the grading scales of other high performing school districts locally, regionally, and nationally. Related to the grading scale, the committee also researched the practice of utilizing pluses and minuses, assigning class rank, and designating valedictorians and salutatorians among graduating seniors.

The committee's objectives were:

- To identify current policies regarding grading in Madeira Schools
- To survey other selected school districts to determine their current policies/practices with regard to grading scale and other academic considerations such as utilization of pluses and minuses in grading, and whether they assign class rank and/or valedictorian and salutatorian awards.
- To collect information pertaining to the advantages and disadvantages of changing the grading scale to the commonly used 10-point grading scale
- To assess the impact a change of grading scale might have on college admissions
- To analyze a sample of actual Madeira students transcripts and determine how a change in grading scale would impact the students' GPAs
- To conduct a survey of Madeira Schools staff members as to their opinions on our current grading scale, grading scale options, and other grade-related issues

The committee elected not to explore the concept of the weighting of academic course grades. Madeira High School already offers students the benefit of additional grade weight for more challenging coursework (0.5 quality points for honors classes and 1.0 quality points for AP classes).

The committee focused primarily on the grading scale at the high school level, as grades earned in high school are crucial to entrance into post-secondary education or employment.

BACKGROUND

The committee began research on the subject of the grading scale and immediately discovered that grading scales have been, and are currently, under scrutiny in numerous school districts across the country. One of the most publicized debates over grading scale policies recently occurred in the Fairfax County School district in Virginia, where there was a highly organized effort to encourage the superintendent and Board of Education to change the grading scale and boost quality points for honors, advanced placement (AP), and international baccalaureate (IB) courses. The Board decided in January, 2009, to

change the grading scale from variant of a 6-point grading scale to a 10-point grading scale with plusses and minuses and to weight the more difficult classes. At Lakota High School in Cincinnati, parents have been urging a change in the grading scale since 2005, in order for their students to compete with neighboring Mason High School students for college admissions and academic and athletic scholarships. At the time of this report, the Lakota School Board is seriously considering adoption of a 10-point grading scale with plusses only.

Several state Boards of Education, including the West Virginia (WV), South Carolina (SC), Florida (FL), Arkansas (AR), and Tennessee (TN) Boards have attempted to eliminate the confusion of the numerous grading scales by standardizing grading scales across the state. WV and TN have mandated a 7-point grading scale and AR, SC, and FL have mandated a 10-point grading scale.

The grading scale is of paramount concern to teachers, administrators, students, parents, college admissions officers and others. Because there is no perfect grading strategy, justifications exist for variety of grading scales. The attempt of this committee will be to sort through the information available to offer Madeira Schools Board of Education a framework for discussion of the grading scale policy.

CURRENT GRADING SCALE AND GRADE-RELATED POLICIES AT MADEIRA HIGH SCHOOL

Madeira Schools currently utilize the following 7-point grading scale.

93-100% : A
85-92% : B
77-84% : C
70-76% : D
and below 69% : F

The 7-point grading scale has been in use in Madeira for at least the past twenty years, though no written record of the beginning of or change to this scale from another was obtainable.

The Madeira High School (MHS) grading scale does not currently utilize plusses and minuses, also known as chromatics, as part of the grade reporting process. All coursework is scored numerically by percentage and reported in the on-line service, Progress Book. The numeric average of all coursework (with importance weight assigned by teachers to homework, quizzes, and tests) is interpreted as a quarterly letter grade according to the 7-point grading scale described above.

The process of calculating a MHS student's final course grade is as follows: two quarterly letter grades are translated to quality point whereby and A= 4 quality points, B=3 quality points, C= 2 quality points, D=1 quality point and no quality points are given for an F. Quality points are "weighted" or increased 0.5 points for honors level classes and 1.0 points for AP classes. To calculate semester grades, the two quarterly quality points are each doubled then added to the quality points earned in the semester exam and divided by 5. For full year courses, the course grade for the year is calculated by doubling and then adding all four quarterly quality points plus the two weighted exam grade points, then dividing by ten.

The grade point average (GPA) is calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. GPA is calculated using both unweighted quality points which range from 0 to 4.0 or weighted quality points, which, at Madeira, range from 0 to 5.0. A student's maximum GPA at MHS is not likely to exceed 4.5 because AP courses are not offered in all subjects or at all grade levels.

At MHS, students are given a class rank at the end of the sophomore year. The rank represents where their GPA stack ranks among their grade level peers. Rank is calculated using both weighted GPAs and unweighted GPAs and is presented both ways on the high school transcripts.

MHS has also traditionally selected a valedictorian and salutatorian from the senior class prior to graduation. Because the GPAs obtained by the better academic students can be extremely close, there has been more than one person named to the top positions of valedictorian and/or salutatorian. A Top Senior Group is also awarded to those students with a 4.0 GPA and above.

COMPARISON OF MADEIRA GRADING SCALE AND GRADE-RELATED POLICIES TO OTHER SCHOOL DISTRICTS' SCALES/POLICIES

Method

Representatives of thirty school districts were contacted by phone or e-mail in order to compare their grading practices to those of Madeira. In most instances, a high school guidance counselor was contacted, but information also came from principals, secretaries, and volunteers. In order to make the comparison clear and direct, we asked four specific questions:

1. Does your district use a 7-point scale, 10-point scale or some variation?
2. Do you use plusses and minuses on your report cards?
3. Do you rank your students against all other class members?
4. Do you recognize valedictorians and salutatorians?

Officials from the seven other Cincinnati Hills League (CHL) schools as well as from fourteen high performing public, private and parochial schools in the Cincinnati area were surveyed. Additionally, surveys were also administered to officials of nine Ohio schools outside of Cincinnati, considered by the Ohio Department of Education as comparable school districts to Madeira.

Results

The results of the survey of thirty school district representatives (plus Madeira) are listed below in Table 1.

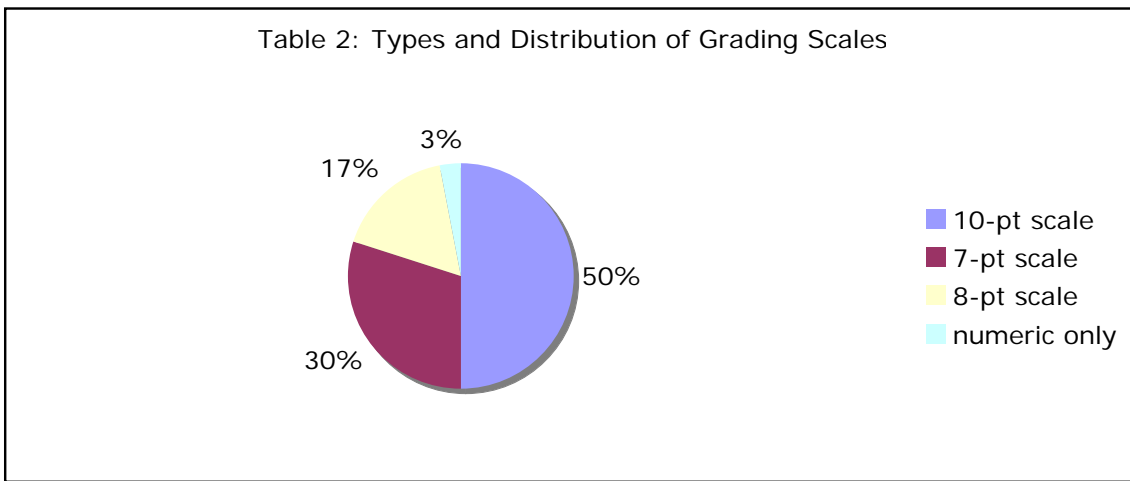
Table 1: Comparison of Grading Scales and Other Grade-Related Academic Designations from High Performing School Districts in the State of Ohio

SCHOOL NAME	SCALE	PLUS/MINUS	RANK	VAL/SAL
Cinti Country Day	10	Yes	No	Yes
Cinti Hills Christian Acad.	10	No	No	Yes
Deer Park	7	No	Yes	Yes
Finneytown	7	No	Yes	Yes
Indian Hill	10	Yes	No	Yes
Kings	10	Yes	No	Yes
Lakota	7	Plusses only	Yes	Yes
MADEIRA	7	No	Yes	Yes
Mariemont	7	No	Yes	Yes
Mason	10	Yes	No	Yes
Milford	7	Yes	Yes	Yes
Moeller	10	No	Yes	Yes
Mt. Notre Dame	7	No	Yes	Yes
Reading	10	Yes	Yes	Yes
Seven Hills	10	Yes	No	Yes
St. Ursula Academy	10	Yes	No	Yes
Ursuline Academy	7	Yes	No	No
St. Xavier	Numeric	n/a	No	No
Sycamore	10	No	No	No
Three Rivers (Taylor)	10	Yes	Yes	Yes
Walnut Hills	10	No	Yes	Yes
Wyoming	10	Yes	Yes	Yes
Fairview Park City	10	Yes	Yes	Yes
Bay Village	7	Yes	Yes	No
Rocky River City	10	Yes	Yes	Yes
Grandview	7	Yes	Yes	Yes
Brecksville-Broadview	8	No	No	No
Ottawa Hills	8	Yes	No	No
Hudson City	7	Yes	No	Yes

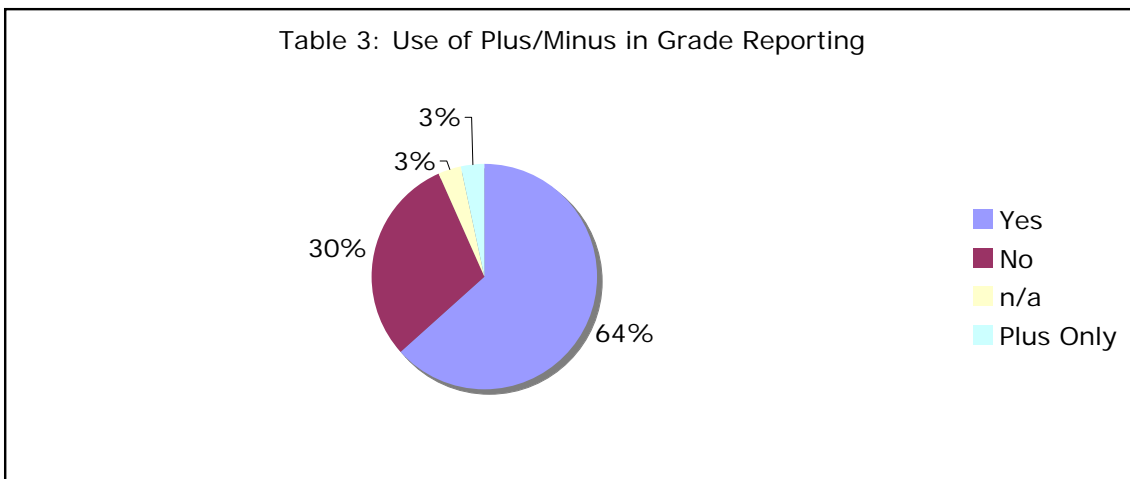
Oakwood	8	Yes	No	Yes
Chagrin Falls	8	Yes	No	No

Conclusions

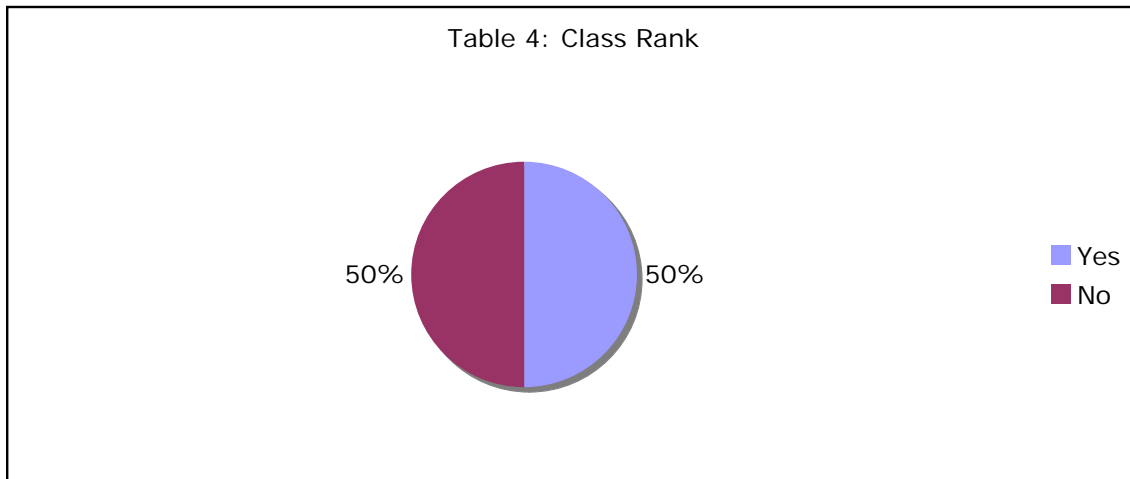
As shown in Table 2, 50% of schools surveyed use a 10-point grading scale. While not a majority, this seems to be the direction in which schools are moving. Two districts have changed to a 10-point scale in the last 5 years and two schools commented that they were considering moving to a 10- point scale. The majority of respondents commented that the 7- and 8-point scales put students at a competitive disadvantage when applying for scholarships.



The majority of schools, 64%, use some form of plus and minus on their report cards as shown in Table 3. Some schools reported additional point value to the plus and minus and some did not. The question of added value or ‘weighted’ plus and minus was not specifically asked.

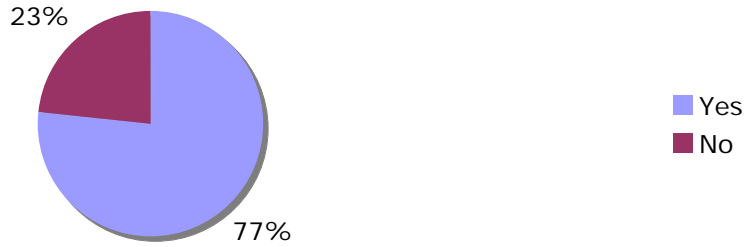


On the issue of ranking students (see Table 4), the field was evenly split with 50% ranking and 50% not ranking. Again, while not a majority, it appears that the trend is moving toward not ranking. One district recently stopped ranking and another is considering the same. In the districts where class rank was eliminated, more than one respondent said they did so because ranking placed their top students at a competitive disadvantage when applying for scholarships; another said that ranking created competition among students and had a negative impact on class camaraderie. In some cases class rank could be made available if requested by the student.



In Table 5, the majority of schools surveyed (77%) recognize valedictorians and salutatorians but the trend seems to be moving away from this. 17% of those who currently honor valedictorians report that they give an award to the highest GPA, not necessarily called a valedictorian, and that the award is not associated with any speaking opportunity at graduation or any other honors. 23% of schools do not recognize valedictorians and salutatorians. Of those schools that have changed or are considering changing their policies, all commented that they would cease the recognition.

Table 5: Valedictorian/Salutatorian Designation



GRADING SCALE INFORMATION FROM OTHER LARGE OHIO SCHOOLS

Additional information regarding the grading scales used by other Ohio schools was supplied by the Lakota School District from their study of grading scales (see Table 6).

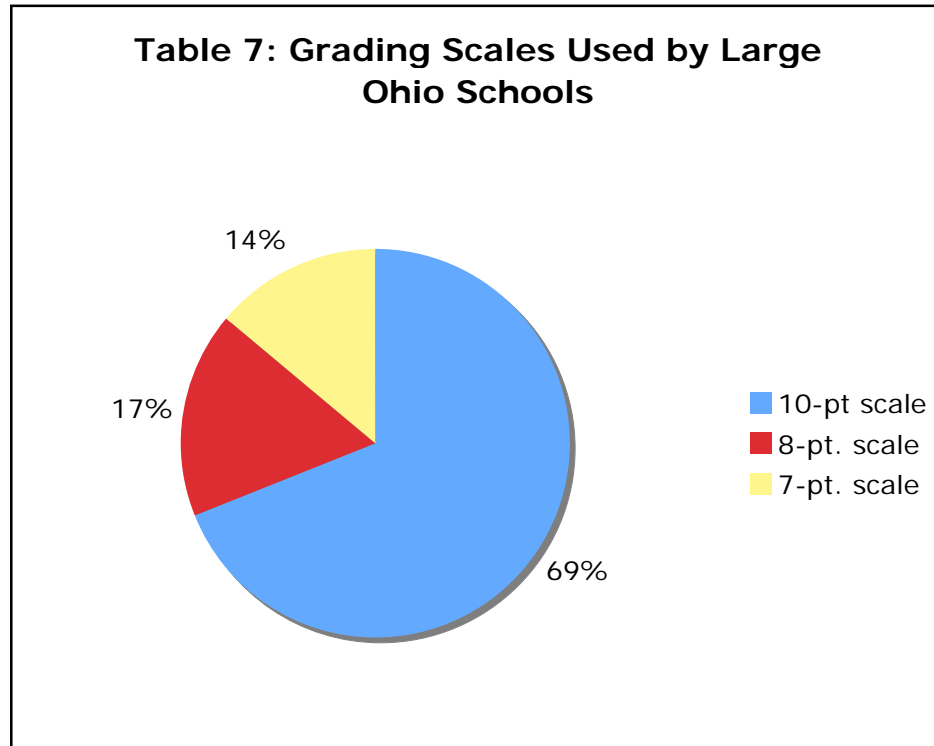
Table 6: Grading Scales Used by Large Ohio Schools

Area Schools Grading Scales

	A	B	C	D	F
Mason	90-100	80-89	70-79	60-69	59 and below
Ind. Hill					59 and below
Sycamore	90-100	80-89	70-79	60-69	below 59 and below
Princeton	90-100	80-89	70-79	60-69	below 68
Fairfield	93-100	92-85	84-75	74-68	= F
Oakhills	90-100	80-89	70-79	60-69	59 and below
Hamilton	90-100	80-89	70-79	60-69	59 and below
Middletown					
Colerain/NW	90-100	83-89	76-82	70-75	below 70=F
Ross	93-100	85-92	77-84	70-76	below 70=F
Talawanda	90-100	80-89	70-79	60-69	59 and below
New Miami	90-100	80-89	70-79	60-69	59 and below
Madison	93-100	85-92	75-84	65-74	65=F
Englewood	A+ 98-100 A 95-97 A- 92-94	B+ 83-91 B 86-88 B- 83-85	C+ 80-82 C- 77-79 C- 74-76	D+ 71-73 D 68-70 D- 65-70	below 65= F
Hilliard	A+ 98-100 A 93-97 A- 90-92	B+ 88-89 B 83-87 B- 80-82	C+ 78-79 C 73-77 C- 70-72	D+ 68-69 D 63-67 D- 60-62	62 and below

	A	B	C	D	F
Centerville	90-100	80-89	70-79	60-69	59 and below
Worthington	90-100	80-89	70-79	60-69	59 and below
Beavercreek	90-100	80-89	70-79	60-69	59 and below
Dublin	A 96-100 (4.00) A - 92-95 (3.67)	B+ 89-91 (3.33) B 86-88 (3.00) B- 83-85 (2.67)	C+ 80-82 (2.33) C 77-79 (2.00) C- 74-76 (1.67)	D+ 71-73 (1.33) D 68-70- (1.00) D- 65-67 (.67)	64 and below
Sylvania	92-100	84-91	76-83	65-75	64 and below
Westerville	90-100	80-89	70-79	60-69	59 and below
Gahanna	90-100	80-89	70-79	60-69	59 and below
Perrysburg	A 96-100 A- 92-95	B+ 89-91 B 86-88 B- 82-85	C+ 78-81 C 74-77 C- 70-73	D+ 67-69 D 64-66 D- 61-63	60 and below
Strongsville	90-100	80-89	70-79	60-69	59 and below
Stow-Munroe	90-100	80-89	70-79	60-69	59 and below
Kenston	90-100	80-89	70-79	60-69	59 and below
Medina	A+ 97-100 A 93-96 A- 90-92	B+ 87-89 B 83-86 B- 80-82	C+ 77-79 C 73-76 C- 70-72	D+ 67-69 D 63-66	62 and below
Brecksville	92-100	83-91	73-82	64-72	63 and below
Solon	90-100	80-89	70-79	60-69	59 and below
Forest Hills	93-100	85-92	76-84	70-75	69 and below
Springboro	A+ 101-110 A 93-101 A- 90-92	B+ 87-90 B 83-86 B- 80-82	C+ 77-80 C 73-77 C- 70-72	D+ 67-70 D 63-67 D- 60-62	59 and below

Of the 29 schools surveyed by Lakota, 20 used a 10-pt scale (Of which one was a modified 10-pt scale), five used a 8-pt scale, and four utilized a 7-pt scale. Six schools used some form of plusses and minuses in grade reporting. In this data set the usage of grading scales by percentage is represented in Table 7 below.



Clearly, the majority of schools surveyed by the Lakota School grading scale group were utilizing a 10-pt scale. Lakota Schools’ administrators are considering a proposal to move to a 10-pt grading scale.

DISADVANTAGES AND ADVANTAGES OF CHANGING THE GRADING SCALE TO A 10-POINT SCALE

Disadvantages of changing the grading scale to a 10-point scale:

Madeira has a rigorous and highly respected academic program. Would changing to a 10-point scale diminish this perception? Mountain Brook Schools commissioned a committee to report on its grading scale. The committee offered that changing to a 10-point scale “could negatively impact the image of the school system if the perception is that the school system has lowered its standards.”

It is believed that most colleges and universities review files by high school,

meaning the counselor or counselors read all the applications from that school, and they are responsible for understanding that school's weighting and grading systems. At some institutions they take this so far as to recalculate every single applicant's high school GPA. At others, they simply read the file in the context of knowing that school. Some believe we might compromise the excellent reputation that our school system has with colleges and universities based on how well our students matriculate as a result of experiencing higher performance standards.

Another argument in favor of staying with our 7-point grading scale lies in tradition and familiarity. Madeira has been on its current 7-point scale for many years. Students and parents have knowledge of the system and its calculations.

Changing the grading scale might not change the distribution of grades, as teachers would adjust the weight of assignments and assessments. "Grading to scale" could come into effect as a result of a switch.

Finally, an advantage of the 7-point scale is that it provides students with motivation to challenge themselves. Having to achieve a 93% to get an A requires more work on the students' part.

Advantages of changing to a 10-point scale:

Trend seems to be moving in the direction of a 10-point grading scale with weighting for honors, AP, IB, dual enrollment, and other advanced courses.

A 10-point grading scale offers many advantages to students.

- College admissions are translated from grades and a 10-point scale would favorably impact students
- Motivates students to attempt college prep, AP and honors classes
- Greater eligibility for academic scholarships, honors programs, and honors/scholars housing that are based on GPA
- Positive effects on student self esteem
- Align with the grading scale used by most colleges and universities
- Students with a higher GPA can earn saving incentives (e.g. auto insurance and other "good student" discounts)

When evaluating students for admission, many colleges look at GPA on a four-point scale. If your school reports it in some other scale, then it is just translated to a four-point scale. So your GPA then depends on how many A's, B's, pluses, minuses, etc. you receive and how those correspond to a university's four point scale. Your GPA would only change if the class grading scale changes the number of A's or B's you get.

The majority of higher education facilities use a 10-point grading scale. Changing our grading scale to a 10-point scale would create a smoother

transition for our students.

Admission-based scholarships are awards in recognition of the academic achievements of graduating high school seniors. A look at grading scales across the region shows that some students can earn A's with a grade of 90, while others need to hit 92, 93 or 94 to claim the top grade. The grading differences may not matter within the school walls, but the points add up when students are earning scholarship money. Honors programs and honors housing are equally stringent in their GPA requirements.

Self-esteem is a vital topic during the high school years. Researchers view the enhancement of self-concept as a vital component to achievement academically as well as in social and emotional experiences across the life span. Stipek, Recchia, and McClintic (1992) find that positive academic achievements or failures can affect how "children develop a sense of self-worth or self-esteem. GPA has an influence on a student's self-esteem. A student who works and strives to earn that one or two points for a boost in their GPA, has a very difficult challenge at being successful under a 7-point scale.

Students earning higher GPAs are eligible for savings incentives at retailers as well as insurance agencies.

Who uses a 10-point scale?

- U.S. Department of Education's Institute for Education Sciences NAEP High School Transcript Study converts to 10-point grading scale unless the high school reports an alternative scale (National Center for Education Statistics, 2007).
- President's Education Awards Program
- The College Board, a national testing organization, for its data gathering purposes
- The majority of colleges and universities
- Indian Hill, Wyoming, Kings, Mason, Sycamore, Three Rivers, Taylor, Walnut Hills, Reading, Cincinnati Country Day, Cincinnati Hill Christian Academy, Moeller, Seven Hills and St. Ursula Academy are all districts in our area who are on a 10-point scale
- Of the 29 larger schools surveyed, 19 currently use a 10-point scale

POTENTIAL IMPACT OF CHANGING THE MHS GRADING SCALE ON COLLEGE ADMISSIONS

Trends in College Applications

This May, the number of students graduating from high school will peak at 3.33 million, according to the National Association for College Admission Counseling (NACAC). College enrollment is predicted to increase at least through 2016. The

number of college applications submitted per student is also steadily increasing. The combination of more students applying to more colleges, compounded by the limited financial resources caused by the economic downturn, will result in fierce competition for admission into institutions for which there is not open enrollment.

Process for Madeira High School Students Applying to Colleges

Madeira students applying to four-year universities are currently submitting, via the guidance counselor's office, their high school transcripts containing the following grade-related information: course names for each semester, the final grade for each semester, the final grade for each yearly course. Also supplied are the students' cumulative unweighted GPAs and their cumulative weighted GPAs. Madeira High School submits to the admissions officers a class rank based on both the weighted and unweighted GPAs. A profile (see Appendix I) specific to Madeira High School is submitted with each transcript. It provides information about the school system that will allow the admissions officers to compare the quality and rigor of our school against the schools of other applicants. It is in this document that prospective colleges are made aware that Madeira utilizes a 7-point grading scale.

College Admissions Decisions Criteria

College admissions officers are confronted with widely varying transcript information from their applicants. Schools supply weighted and/or unweighted GPAs. Some factor all courses into the GPA while others only factor in core academic courses, such as Math, Language Arts, Science, Social Science, and Language. Class rank is offered sometimes but not always leaving the admissions office to decipher how well the student performed among classmates as well as among the applicant pool at large. The grading scales vary in so many ways from straight 6-, 7-, 8-, and 10-point scales to modified scales, with or without pluses and minuses. The combinations and variations are endless leaving the applications reviewers with the daunting task of sorting through applications to offer the most qualified students their coveted admissions spots.

The college admissions officers and directors are often organized such that an officer reviews all applications from a particular school so that they become knowledgeable about the school's system of grading, quality point assignments, GPA calculation method, and other factors. College and university admissions officers and directors are working to find ways to make grading less subjective in school systems across the country and to level the playing field when considering GPAs.

NACAC reports in their State of College Admissions Report, 2008 the ratings by college admissions officers across the country of the numerous criteria in the

admissions decision. The most important factors in the admission decision have remained unchanged over past four years. They are, in order:

1. Grades in college prep courses
2. Strength of Curriculum
3. Test scores (ACT, SAT)
4. Overall GPA (grades in all courses)

Other considerations include, in order of importance, student essays or writing samples, class rank, demonstrated interest, counselor recommendation, and teacher recommendation.

Clearly, grades play a crucial role in the college admissions process validating the need to determine whether our grading scale is an asset or detriment to our students applying to colleges.

Admissions Decisions Criteria by Colleges Frequently Attended by Madeira Students

According to the Madeira High School guidance office, the matriculations of the senior class of 2008 were (in order of the number of students attending):

1. University of Cincinnati/Raymond Walters
2. Ohio State University
3. Ohio University
4. Cincinnati State
5. Xavier University

Each university's admission representative for Madeira High School was contacted with the exception of Cincinnati State, which has an open enrollment policy and therefore does not present competitive admission situation for our students. The four other universities' admissions officers unanimously stated that the grading scale is neither an asset nor a detriment to the applicants. While the director of admissions at The University of Cincinnati stated that they do take our grading scale into consideration when reviewing applications, she definitely understood why Madeira was researching other grading scheme possibilities.

When asked to rank their top considerations for applicants, the responses were as follows:

UC: Grades in CP classes/Strength of Curriculum/standardized test scores/GPA:
all rank equally

OSU: Grades in CP classes, GPA/Class rank, standardized test scores

OU: Grades in CP classes/Strength of Curriculum/standardized test scores/GPA:
all rank equally

Xavier: Grades in CP classes, Strength of Curriculum, GPA, standardized test scores

The conversations with the admissions officers indicated general agreement with admissions criteria as stated in the NACAC report. A representative of Miami

University ranked strength of curriculum as the most important criteria for admission.

Other Colleges Admissions Criteria

Colleges and universities vary in their approaches to reviewing applications and issuing acceptances. Some of the methods employed make the grading scale a greater consideration. For example, the University of Michigan and Stanford University do not consider the weighted GPA. They view the course grades on a 4.0-quality point scale without regard for the course difficulty. Differences in the grading scale can be magnified when grades are viewed against a 4.0 scale vs. a potential 5.0 scale.

According to a survey conducted by the Fairfax Board of Education, 45% of colleges recalculate your GPA to only include academic courses, eliminate grade weighting or to drop the plusses and minuses from grades.

Effect of Changing the Grading Scale on GPA

Hard data regarding the effect of grading scale changes on GPA is difficult to locate in the literature. One of the largest studies of this type was conducted in Fairfax County Public Schools in Virginia. Their parent group, Fairgrade, launched a major effort to change the grading scale from a 6-point scale to a 10-point scale. The circumstances at Fairfax differ from those in Madeira in that they also were urging the school board to adopt a system of greater weighting (quality points) of honors, AP, IB, and dual enrollment courses which Madeira already has in place. However, in the Fairfax transcript analyses, they examined the change in GPA, based solely on the change of grading scale. The analysis showed that GPA would improve on average, 0.15 pts, with the greatest changes being seen in the 2.5-3.5 GPA range.

At Unionville-Chadds Ford School in Pennsylvania, three transcripts were used as examples to demonstrate GPA changes with a shift in the grading scale from 7-pt to a 10-point scale. For Student A with a 4.284 GPA there was no change. For Student B with a 2.937 GPA, the grade point average was raised to 3.129. For Student C, their 2.600 GPA was raised to a 2.710.

While many schools have made the change to a 10-pt grading scale in recent years, few are reporting, other than perhaps internally, the effects of the change on the student GPA averages.

ANALYSIS OF MADEIRIA STUDENTS' COURSE GRADES AS EVALUATED AGAINST THREE GRADING SCALES

In order to view the grade data indicative of the impact of the grading scale on actual MHS students, the committee collected transcripts and Progress Book information from the guidance counselors' office. All names and identifiers were removed from the documents to protect students' privacy. Ideally, the impact of changing the grading scale could be calculated but a critical piece of data, the exam grades, was unavailable. Instead, first quarter grades were obtained from Progress Book in numeric (percentage) form and assigned a letter grade according to three scales: the current 7-pt. scale, a 10-pt. scale and a 10-pt. scale with plusses and minuses. The grading scales used in the sample analysis were as follows:

7-PT. SCALE

93-100% = A
85-92% = B
77-84% = C
70-70% = D
69% and below = F

10-PT. SCALE:

90-100% = A
80-89% = B
70-79% = C
60-69% = D
59% and below = F

10 PT SCALE WITH PLUSSES AND MINUSES:

93-100% = A	77-79.9% = C+
90- 92.9 =A-	73-76.9% = C
87-89.9 = B+	70-72.9% = C-
83-86.9% = B	67-69.9 = D+
80-82.9% = B-	63-66.9 = D
	60-62.9 = D-

Results

Generally, viewing percentage grades on three grading scales reveals the fairly large number of grades falling at the margins of the 7-pt grading scale cut-offs (see Table 8). With the 10 pt. scale, fewer courses (27%) were affected positively but perhaps they were affected more substantially after quality points are assigned (A=4 quality points, B= 3 quality points, etc.). When course grades were evaluated against the 10-pt scale with plusses and minuses, more grades

(48%) were affected but most likely to a lesser degree after quality points are assigned (see Table 9).

Table 8: Grade Changes with Translation from a 7-pt Scale to a 10-pt Scale and a 10-pt Scale with +/-

AS DIFFERING FROM THE 7-PT SCALE	10-PT SCALE	10-PT WITH +/-
Number of course grades improved N=513	138	245
Percentage of course grades improved	27%	48%
Number of course grades lowered	0	2
Percentage of course grades lowered	0%	0.3%
Number of students effected positively N=108	79	97
Percentage of students effected positively	75%	92%
Number of students effected negatively	0	2
Percentage of students effected negatively	0%	0.3%

Table 9: Quality Points Assigned with +/- Scale

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
4.0	3.7	3.3	3.0	2.7	2.3	2.0	1.7	1.3	1.0	.7	0

It follows that the number of students affected positively by utilizing the 10-pt grading scale is quite large because of the distribution of course grade improvements. Most (75%) students had at least one grade improved among the academic courses. Using the 10-pt scale with plusses and minuses allowed nearly all students (92%) to see a benefit to having course scores graded against this grading scale, though the improvement may have been slight.

Only two course grades, belonging to two different students, realized a downturn when evaluated against the 10-pt scale with plusses and minuses. This can be attributed to the rounding-up phenomenon of larger grade-span grading scales.

Conclusions

While it is extremely difficult to predict what changes would occur if the grading scale was changed from a 7-pt scale to either of the 10-pt scales because of human factors (such as teacher subjectivity and student attitudinal adjustments to a new scale), it is certain that some hard-working students would benefit from receiving a few percentage points leeway in order to obtain the higher letter grade. In theory, the numeric scores would remain the same; only the assigned letter grade would change.

SURVEY OF MADEIRA SCHOOLS STAFF MEMBERS

Methods

This committee felt it would be crucial to seek feedback from teachers within Madeira City schools to find out their opinions and feelings about our current grading scale as well as several alternative scales.

Using the www.surveymonkey.com survey engine, a multiple-choice survey was distributed to the faculty and staff at Madeira Elementary, Middle and High schools. The questions were designed to ask staff opinion about various grading scales, taking into consideration different perceptions/conceptions of some of the grading scales identified. So as to remain unbiased, the survey gave staff no background information as to our other research findings (for example, one question asks about colleges and admission choices based on grade scale, and staff members were provided no information as to our findings in this area outside of this survey). The survey contained the following questions and answer choices:

1. If Madeira were considering a change to its grading scale, I would be most in favor of a(n):

- 7-point grading scale as it exists currently in Madeira (no change)
- 7-point grading scale which includes plus and minus levels
- 10-point grading scale
- 10-point grading scale which includes plus/minus levels
- Alternative grading scale which has not been mentioned here (please describe in comments at the end of this survey)

2. A 7-point grade scale is more indicative of student performance than an alternative scale.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

3. A 7-point grading scale puts students at a disadvantage when applying to college.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

4. Under a 10-point grading scale, students do not work as hard.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

5. A 10-point grading scale offers some students more opportunity/motivation to succeed.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

6. It is my perception that a school district's grading scale makes a substantial difference in college admissions choices and scholarship awards.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

7. Madeira should recognize a valedictorian/salutatorian for the graduating class.

- Yes, and we should allow for multiple valedictorians/salutatorians in any given year
- Yes, however we should choose only ONE valedictorian and ONE salutatorian per year
- No, we should not acknowledge valedictorian/salutatorian at all.

8. In which Madeira school building do you spend the majority of your time?

- Madeira Elementary School
- Madeira Middle School
- Madeira High School

9. Madeira should assign "class rank" to its high school students.

Answer choices: Strongly agree, Agree, Neither agree nor disagree, Disagree, Strongly disagree

10. Please provide any comments/feedback you are willing to share with regard to your feelings about the various grading scales (7-point, 10-point, +/-, etc.), or any other thoughts/comments you are willing to provide.

Results

88 staff members responded to the survey, with one staff member opting not to answer 6 of the questions. Graphed representations of survey results can be

found in Appendix II.

37.9% of staff indicated a preference for a district-wide change to a 10-point grading scale using +/- . 20.7% indicated a preference for a straight 10-point scale. Overall, this represents 58.6% of staff in favor of some form of a 10-point grading scale.

20.7% of staff indicated a preference for maintaining Madeira's current grading scale, and 16.1% indicated a preference for a 7-point scale which includes +/- levels. This represents a total of 36.8% of staff in favor of some form of 7-point grading scale.

54% of responding staff, overall, were in favor of scales including +/- levels.

If one considers the 4.6% of respondents indicated a preference for an alternative scale that was not mentioned in the survey, this represents the fact that 79.3% of survey respondents desire some form of change in Madeira's grading system.

34.5% of staff had no opinion as to whether the 7-point scale is more indicative of student performance than alternative scales, and only 10.3% had strong feelings that the 7-point scale IS more indicative of student performance.

Of the staff surveyed, 30.7% feel that our current grading scale puts Madeira's students at a disadvantage when applying for college admissions, and 28.4% neither agree nor disagreed with this. .

39.8% of survey respondents disagreed with the statement that students do not work as hard under a 10-point sale, and another 29.5% neither agreed nor disagreed.

When posed with the question of whether or not the 10-point grading scale offers students more opportunity/motivation to succeed, 46% of respondents agreed, and 4.6% strongly agreed, for a total of 50.6%.

In general, staff did not perceive that a district's grading scale makes a difference in college admission choices and scholarship decisions.

When asked about whether or not Madeira should recognize a valedictorian/salutatorian for the graduating class, 51.7% of respondents are of the opinion that we should allow for multiple valedictorians/salutatorians in any given year. 43.7% were in favor of choosing only ONE student for each of these honors. 4.6% felt that we should not acknowledge valedictorian/salutatorian at all.

Of the faculty/staff members who responded to the survey, 27.9% spend the majority of their time at the elementary school. 37.2% at the middle school, and 34.9% at the high school.

63.2% of staff either agreed or strongly agreed that Madeira should assign class rank to its high school students. This question was flawed, however, and failed to indicate the distinction between assigning class rank and publishing that class rank.

Conclusion

The majority of Madeira staff (79.3%) indicated a preference for a shift away from our current 7-point scale. Of these, 58.6% preferred a 10-point scale in general; 37.9% expressing a preference for the 10-point scale using +/- indicators (20.7% without). Overall, 54% of staff were in favor of some form of +/- system, regardless of the number scale used.

UTILIZATION OF PLUSSES AND MINUSES IN THE GRADING SCALE

Adding plusses and minuses to a letter grade, or chromatic grading, allows a single grade category to be divided into two or three levels. The incorporation of this system of grading has been debated for decades.

Proponents adhere to the notion that greater discrimination between work, scoring higher or lower within a letter grader grade, is necessary for the assessor and the assessed. Survey data shows that parents also favor the use of plusses and minuses on report cards. On the other hand, data exists to suggest that increasing the number of categories lowers the reliability and validity of the measures.

In a study at Western KY University, a thorough analysis of student GPAs pre- and post-implementation of the +/- system of grading indicated that the "signed" grading actually hurt more students than it helped. While the original concern prior to the study was for grade inflation, signed grading actually had the opposite effect, and less A grades were given. Several studies in the literature showed no net effect on GPAs due to the use of +/- in grading.

At present, the four universities which Madeira students most often attend (UC, Ohio State, Ohio University and Xavier) are all using a plus and minus grading system. Corresponding quality points are given as shown above in Table 9.

While there is some benefit to offering the continuity of grading systems between high school and college, research must be conducted as to the opinion of staff, students and parents for whom the +/- system would represent a policy change.

CLASS RANK

While class rank is still considered a fairly important factor in the decision of a college admissions officer, many schools have discontinued the practice of reporting it on the high school transcripts. The NACAC reports in their State of College Admissions report that half of all high schools no longer report student rankings. This data directly parallels the data presented in Table 4 in which half of high schools report class rank while the others do not.

One reason high achieving school districts have discontinued reporting class rank to prospective colleges is that even excellent students within a very competitive student body can have difficulty breaking into the coveted top decile or quartile and may even have a low class rank. Exclusion of the class rank from the transcript can force admissions officers to look deeper into an application for other indicators of the student's caliber. Some admissions officers report that they are not able to make as informed a decision and that the absence of class rank may force a greater emphasis on standardized test scores or GPA.

Middletown High School in Monmouth County New Jersey has come up with a solution that they feel benefits their students. College guidance counselors recently began offering a choice as to whether students wish to report class rank on their transcripts. It is an opt-out policy whereby a student's rank will automatically not be reported unless the student or guardian requests that it be reported.

Many universities still request class rank and most merit-based scholarships require class rank.

VALEDICTORIAN AND SALUTATORIAN SELECTION

Another controversial topic among educators and families is the tradition of awarding valedictorian and salutatorian status to the students with the highest and second highest GPA of the high school graduating senior class. Often, the difference between the GPAs of top students can be in the hundredths or thousandths of a grade point. In order to achieve this high honor, many students devise strategies from the moment they reach high school to keep their grade point as high as possible. One such method is to "declare" non-honors or AP level classes, for which only a 4.0 is awarded an A grade, so as not to lower the GPA. The competition can become quite fierce for valedictorian/salutatorian recognition.

Reasons to continue the practice of naming valedictorian and salutatorian are primarily social. The pomp and pageantry of graduation ceremonies often include the traditional speech by the award winners. Bragging rights exist for the student and the parents indefinitely. Some scholarships are still awarded based on valedictorian status. One rationale to continue naming valedictorian and salutatorian is to highlight academic achievement, which is under-acknowledged in society, despite the fact that competition for the prestigious awards can be as fierce as any athletic competition.

Opponents of selecting valedictorians and salutatorians believe that competition for the spots has negative consequences. The competitiveness can become so intense as to destroy friendships and the cooperativeness of the senior class. Contenders may lose an opportunity to experience life-enriching classes simply because they are not weighted as honors or AP. Many colleges do not consider the distinction of valedictorian/salutatorian to be more important than other academic achievements. In fact, in 2006, Duke University rejected 58% of valedictorian applicants. The University of Pennsylvania rejected 62%.

Alternatives exist, according to Thomas Guskey, known for his research on grading in the educational process. Some high schools have moved to an honors awards system similar to that used by colleges in which all students who meet the criteria qualify. These schools find that achievement goes up as more students begin striving for honors, and morale improves as students begin helping each other attain the honors.

According to the survey of thirty Ohio schools, designating valedictorian and salutatorian is practiced by 77% (see results above in Table 5).

RECOMMENDATIONS

The Planning Commission Grading Scale Committee recommends:

- That the Madeira Schools Board of Education change the grading scale to a 10-point grading scale.

Rationale:

- Moving to a 10-point grading scale would bring Madeira Schools in line with many, if not most, of the school districts to whom our students are compared, such as Indian Hill and Wyoming. The 10-pt. scale is the most commonly used grading scale in the country.
- Scoring students against a 10-pt scale versus the current 7-point scale would make more Madeira High School students eligible for

college admissions in the extremely competitive college application environment.

- For students at the upper end of the GPA range, moving to a 10-point grading scale would enhance the ability to compete for scholarships and honors programs, where high minimum GPA requirements exist.
- Students scoring at the lower end of the GPA range may be more motivated to achieve at higher levels (Betts and Grogger, 2003). Graduation rates may improve; dropout rates may decrease, as they did in FL when they changed to a 10-point grading scale.
- Moving to a 10-point grading scale would provide continuity for MHS students pursuing post-secondary education. The 10-pt. grading scale is utilized in nearly all college/university settings.
- Athletic ineligibility may be less problematic for students and coaches.
- Changing to a 10-point grading scale may afford MHS students more opportunities for internships, jobs, academic programs, honors housing science research opportunities, national competitions and awards, all of which require high school transcripts.

Implementation Suggestions

- Conducting a *community and student informational forum* prior to a change of grading scale would provide the Board of Education the opportunity to educate the community as to the current educational trends in grading practices as well as to gain feedback from those whom a grading scale change would affect.
 - A *complete transcript analysis* would allow for the evaluation of the actual impact a new grading scale would have on Madeira students' GPAs. While results of a grading scale change are not predictable, examining data from current or past students would show the changes that might be expected in terms of in grade distribution, graduation rates, numbers of students in Top Seniors group, etc.
 - *Integrating chromatics (plusses and minuses) to the 10-point grading scale* may impact GPA, student motivation, or enhance teacher's ability to assess a student. For more information, The Board may elect to compare GPAs with and without chromatics in a transcript study, solicit the opinion of MHS staff on the utility of chromatics, and/or review literature more extensively.
- That class rank be considered personal information and neither received by the student nor distributed on transcripts without the written consent of the student (over 18) or guardian.

Rationale:

- Widespread dissemination of class rank information to students promotes competitiveness among top-level students vying for academic honors.
 - A student's knowledge of their class rank may be a disincentive to achievement. In a high educational-standard district like Madeira where, because there are so many students excelling, a student may have a high GPA and a low class rank.
 - Since many schools are no longer reporting class rank on the high school transcript, Madeira students should have the option whether to present rank information to prospective colleges.
- That the practice of designating valedictorian and salutatorian be continued, along with Top Senior status until further data exists that the practice is detrimental to students as a whole.

FUTURE PLANNING COMMISSION CONSIDERATIONS REGARDING THE GRADING SCALE

- Examine the "Zero Effect": How averaging a zero rather than an F can potentially devastate a student's grade and/or GPA.
- Evaluate the grading policies across the three district schools with consideration to when students should begin receiving letter grades, whether letter grades should be given in all subjects, and alignment of middle school with high school grading policies.