

**Madeira City Schools
Planning Commission
“Madeira vs. The World” Study
April 10, 2008**

Planning Commission:

Steve Telford, Chair
Charlotte Fairlie
Mitza Costantini
Heidi Macneal
Darlene Mason
Kenji Matsudo

Resource:

Table of Contents

Overview

Purpose	3
Methodology	3
Results	4
Recommendations	5
I. Madeira / Benchmark Ohio Schools / The World:	6
SAT Score Comparison	
Purpose, Rationale, Methods, Results and Conclusions	
2007 Comparative SAT Data – Madeira vs. The World - Chart	
2007 Comparative SAT Data – Madeira vs. The World - Graph	
II. Comparison of Ohio Benchmark Schools' Curriculum:	10
Fine Arts, Global Languages, and Advanced Placement	
Purpose, Rationale, Methods, Results and Conclusions	
Curriculum Data – Similar Districts	
Arts, Music, Drama, Languages and Advanced Placement	
III. Comparison of Ohio Benchmark Schools:	18
Global and Diversity Awareness	
Purpose, Rationale, Methods, Results and Conclusions	
Curriculum Data – Similar Districts	
Global and Diversity Awareness	
IV. Comparison of Ohio Benchmark Schools:	21
Transition to College	
Purpose, Rationale, Methods, Results and Conclusions	
Transition to College – Similar Districts	
V. Factors Contributing to Success in High-Achieving Countries:	23
Purpose, Rationale, Methods, Results and Conclusions	

Table of Contents - continued

Works Cited	25
Appendix I – Fiscal Year 2007 – Similar Districts Grouping	
Appendix II – Profile of Recent High School Graduates Enrolled as First Year College Students	
Appendix III – Average Scores of 15-year-Old Students on Combined Science Literacy Scale and Science Literacy Subscales, by Jurisdiction: 2006	
Appendix IV – Average Scores for 4 th Grade Students in Participating PIRLS Jurisdictions on Combined Reading Literacy Scale, Literary Subscale, and Informational Subscale, by Jurisdiction: 2006	

Overview

Purpose

The “Madeira vs. The World” Committee was formed at the request of the Madeira City Schools Board of Education to study how Madeira City Schools compare to the rest of the world. As this is a broad topic, the committee decided to narrow the scope of our research to

- Comparing Madeira’s SAT results with those at 12 similar high-performing districts within Ohio, the USA, and selected international regions
- Reviewing selected international educational systems
- Comparing selected Madeira curricular and extra-curricular programs with those at 12 similar high-performing districts within Ohio

The rationale for focusing on these areas was to answer these questions:

- Are Madeira City Schools preparing our students to be successful, caring citizens in a global society?
- Are Madeira City Schools offering programs that will attract families who are looking for the best educational experience and preparation for their children?
- How do Madeira City Schools compare with both national and international averages and with other high-performing Ohio schools in these respects?

This is an informational report provided to the Madeira School Board for the purposes of comparison, to prompt discussion, and to help provide a context for future decision-making so that Madeira City Schools can improve its educational programs.

Methodology

The twelve benchmark school districts in this report are Mariemont City Schools, Fairview Park City Schools, Bay Village Schools, Rocky River City Schools, Grandview Schools, Indian Hill Schools, Ottawa Hills Local Schools, Hudson City Schools, Oakwood City Schools, Chagrin Falls Schools, Wyoming City Schools and Brecksville-Broadview Heights.

These districts were selected from a computer generated model provided by the Ohio Department of Education Similar Districts – Fiscal year 2007 Similar Districts Grouping. The computer model compares average number of daily members (students in attendance, ADM), poverty as a percent of daily membership, percent of population with Administrative or Professional Occupations, median income, percent of population with a college degree or more, percent agricultural property, population density, non-residential and non-agricultural per pupil and percent of minority students. Most districts compared on this list also performed at a high level with academic standards and results close to those of Madeira City Schools.

Included with the twelve similar districts is a profile of Recent High Schools Graduates Enrolled as First year College Students by High School District of Graduation – Fall 2001 – Fall 2005, the average was used for that period of time. This was the most current profile available. (see Appendix I & II).

After identifying the benchmark schools, the committee conducted the following research:

1. Gathered selected data on the benchmark schools from the Ohio Department of Education and the Ohio Board of Regents.
2. Compiled SAT results at benchmark Ohio school districts and in major world regions.
3. Surveyed Madeira and benchmark schools on their curricular and non-curricular opportunities in fine arts, global languages, Advanced Placement, college placement, diversity, and environmental issues, (available in separate binder).
4. Reviewed successful international educational systems.

Results

- At the high school level, compared to most benchmark schools, Madeira offers limited music, art, and drama classes.
- At the elementary level, Madeira's fine arts curriculum is typical of most of the schools; however, a few schools appear to have more requirements in the middle grades.
- Madeira's global languages curriculum is one of the stronger programs in terms of the choices available. However, few Madeira students are taking a global language AP.
- Madeira's AP program is strong for a school its size—only two districts offer a significantly wider choice of subjects. However, at least four schools offer Calculus BC, a more advanced exam (Madeira offers AB only), and Madeira offers no AP classes in the fine arts.
- In addressing global and diversity awareness, Madeira is in line with other benchmark schools. The areas seem to be well developed in only three of the thirteen schools.

- Of the schools with dual guidance/college counselors, Madeira's student to counselor ratio is the lowest. Madeira sends the smallest percentage of graduates to out-of-state colleges than any of the schools. Fewer of Madeira's graduates are placed in remedial math and/or English in Ohio colleges and universities than from any of the benchmark schools.
- The approaches to education in high-achieving countries, such as Finland and South Korea, serve as an interesting and useful contrast to that in the United States.
- Madeira's mean SAT scores for 2007, at 1625, are significantly above average for the state of Ohio but are below average among the benchmark schools' mean of 1675. Seven of the schools rank higher than Madeira. Against world regions, Madeira ranks high compared to the USA as a whole, but still ranks below the more highly developed regions of Europe, Canada, and Asia/Pacific.

Recommendations

- Explore creative ways to expose students to non-western languages, diversity issues, and environmental awareness in order to prepare them for success in a global economy.
- Develop and implement a strategic plan aimed at retaining more students in global languages.
- Offer a wider selection of fine arts classes in order to prepare students for the "conceptual age" economy, to improve SAT scores, and to attract new families and students to Madeira that are seeking this type of education.
- Provide professional development for college counselors in the areas of college funding, college selection strategies and college resources available (both locally and nationally).
- Perform exit interviews with college bound seniors and determine their selection criteria for the university they choose to attend, (funding sources, school tuition, distance from home, location, alumni or other personal influence, majors, minors, course offerings, etc).

I. Madeira / Benchmark Ohio Schools / The World SAT Score Comparison

Purpose

The purpose of this study was to begin the process of comparing Madeira City Schools to 12 Ohio school districts identified as similar to Madeira and to the 10 world regions recognized by the College Board, where the SAT is administered.

Rationale

The 12 Ohio school districts chosen for comparison with Madeira were examined in terms of their size, demographics, median income, percentage of population with a college degree or higher and Ohio school report card rating. These districts were identified as benchmark schools with which Madeira might compare itself and the quality of its program for producing successful and competitive graduates. While comparing SAT scores from different districts and countries carries inherent problems, they remain one of the more accessible sources of data and provide an introductory snapshot.

Methods

The data were compiled using the following sources:

- The High School Basic Report, provided to Madeira High School by the College Board reporting data from 2007 SAT scores
- The College Board 2007 SAT Trend Report, reporting mean SAT scores in 10 world regions, shared with the committee by a representative of The College Board.
- Contact with high school counselors from the 12 target districts, who shared information from their College Board High School Basic Reports.

Results

Madeira's mean SAT scores for 2007, at 1625, are significantly above average for the state of Ohio but are below average among the benchmark schools' mean of 1674.8. Seven of the schools rank higher than Madeira. Against world regions, Madeira ranks high compared to the USA as a whole, but still ranks below the more highly developed regions of Europe, Canada, and Asia/Pacific.

Conclusions

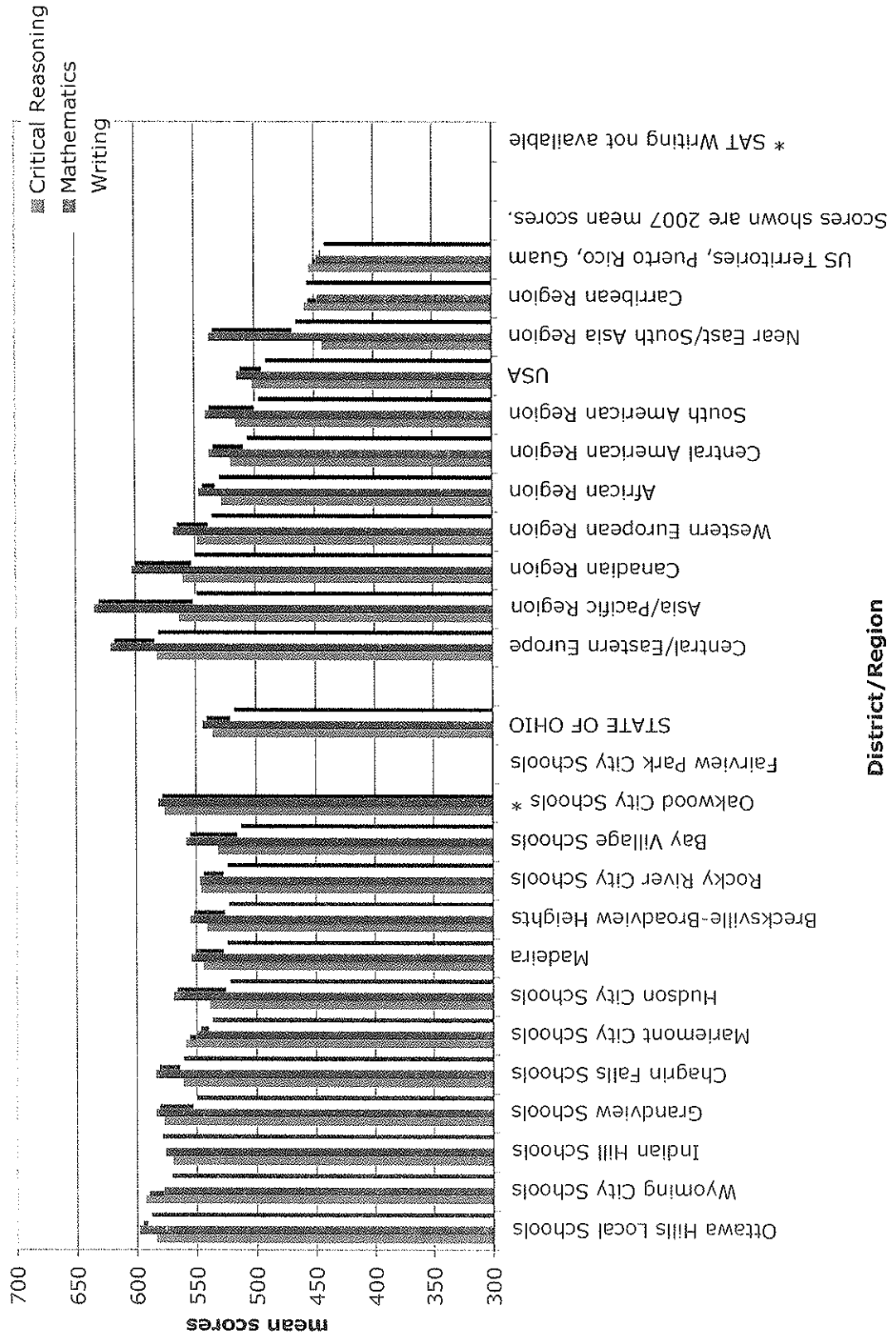
As with any comparative study of standardized test scores, caution should be taken in interpreting results for many reasons. The tests, historically, have been criticized for cultural bias. It is important, also, to note that the number of students taking the test in the United States is far greater than the number of international students. Furthermore, it is probably safe to assume that students with a wider range of abilities, in Madeira, statewide, and nationally, are taking the SAT and thus included in these mean scores whereas it is more likely that only the more academically advanced students are testing internationally. The scores do suggest that Madeira students' basic skills are strong compared to national and international averages; however, compared to the high-achieving benchmark schools, there might be room for improvement.

2007 Comparative SAT Data: Madeira vs. The World

School/Region	Critical Reasoning	Mathematics	Writing	Aggregate
Ottawa Hills Local Schools	584	598	591	1773
Wyoming City Schools	593	577	574	1744
Indian Hill Schools	570	576	582	1728
Grandview Schools	577	584	553	1714
Chagrin Falls Schools	561	584	564	1709
Mariemont City Schools	559	550	540	1649
Hudson City Schools	539	569	525	1633
Madeira	544	554	527	1625
Brecksville-Broadview Heights	541	555	526	1622
Rocky River City Schools	546	547	527	1620
Bay Village Schools	532	558	516	1606
Oakwood City Schools *	576	581		
Fairview Park City Schools				
STATE OF OHIO	536	544	521	1601
Central/Eastern Europe	582	621	584	1787
Asia/Pacific Region	563	634	552	1749
Canadian Region	560	603	553	1716
Western European Region	548	568	539	1655
African Region	528	547	533	1608
Central American Region	520	538	509	1567
South American Region	516	541	500	1557
USA	502	515	494	1511
Near East/South Asia Region	443	538	468	1449
Caribbean Region	458	447	459	1364
US Territories, Puerto Rico, Guam	454	448	444	1346
Scores shown are 2007 mean scores.				

* SAT Writing not available

2007 Comparative SAT Data: Madeira vs. The World



II. Comparison of Ohio Benchmark Schools' Curriculum: Fine Arts, Global Languages, and Advanced Placement

Purpose

To compare Madeira's arts, languages, and A.P. curricula with those of similar schools in Ohio.

Rationale

Since mathematics, language arts, science, and social studies are covered by standardized tests, and curricula in those areas tend to be more prescribed and consistent between schools, the committee decided to focus on areas where school districts have more flexibility with the following concerns in mind:

- Two previous Planning Commission Studies (Diversity and Foreign Language) have presented evidence to show that facility in a second language is a vital skill. According to Susan Black, "the U.S. Department of State says 'deficits in foreign language learning' and teaching hamper security, diplomacy, law enforcement, intelligence, and cultural understanding." She adds that "half of U.S. 18-24-year-olds have dangerously low cultural understandings of world populations and world events" and that "too many young Americans are unprepared for an increasingly global future" (46-47).
- Ample evidence exists demonstrating the importance of arts education. Daniel Pink argues that the economy is changing from an "information age" to a "conceptual age": now that computers can perform many of the tasks requiring logical and linear thinking, "the abilities that matter most for this new economy are artistry, passion, seeing the big picture, and the transcendent—right-brain skills that we have always associated with learning in the arts" (Sloan and Nathan 18). At the same time, participation in the arts is associated with improved performance across the curriculum: greater engagement with school; improved math, reading, and critical thinking skills; and enhanced cognitive development. Students involved in the arts also perform better than their peers on the SAT (Ohio Alliance for Arts Education). Despite the generally recognized benefits of arts education, "quantifiable measures required by many state education laws and the federal No Child Left Behind Act are actually driving out the kind of learning and pedagogy that help develop the very right-brain thinking" that will be necessary in the twenty-first-century global economy (Sloan and Nathan 18). More information about the value of the arts and career opportunities in arts-related fields is available on the Ohio Alliance for Arts Education's well-documented web site.

- Advanced Placement courses are generally considered the most challenging standardized curricula available to high school students and are used by some publishers of popular rankings as a measure of high school effectiveness. Offerings vary widely from district to district.

Methods and Sources

Information was gathered from district websites, course catalogs, and interviews. Since there is variety in where courses are listed (e.g. graphic design may appear in either computer science or art), length of periods, and rotation systems, caution should be taken in interpreting results.

Results

Despite the caution noted above, the results serve as starting point for future curricular review and draw attention to one area of concern.

Fine Arts: The study revealed that compared to most benchmark schools, even those with similarly small student bodies, Madeira offers limited music, art, and drama classes at the high school level. The committee recognizes that some art topics and media may well be embedded in “Art Independent Study”; even so, Madeira’s program as it is described does not appear diverse or appealing to students and prospective parents. Seven other schools offer courses in music theory and/or history, and seven offer orchestra. Madeira offers none of these. Only four schools offer any drama courses. While seven schools offer APs in art history and/or studio art and/or music theory, Madeira offers no fine arts subjects at AP. At the elementary level, Madeira’s curriculum is typical of most of the schools; however, a few schools appear to have more requirements in the middle grades.

Global Languages: The high school comparison reveals that Madeira’s global languages curriculum, which offers three languages to AP, is one of the stronger programs in terms of the choices available. However, comparatively few Madeira students are taking a global language AP. Few of these schools, Madeira included, offer non-European languages. The elementary school comparison reveals that at least four schools offer some global language experience prior to seventh grade. However, Madeira is not atypical in not offering elementary school languages. A number of schools mentioned parent initiatives, such as after-school language activities, but since these seem to come and go based on parental interest and are not part of the curriculum, they are not shown in the results.

Advanced Placement: Madeira's AP program is strong for a school its size—only two districts offer a significantly wider choice of subjects. However, at least four schools offer Calculus BC, a more advanced exam (Madeira offers AB only), and at least seven offer at least one fine arts AP (as noted above, Madeira offers no AP classes in the fine arts).

Conclusions

Overall, Madeira's high school curriculum offers many challenging opportunities for a school of its size; however, it appears that students have comparatively few opportunities in the arts. In global languages and arts, Madeira's elementary curriculum appears to be average rather than innovative or outstanding, even for a smaller school. It appears that Madeira's students are not challenging themselves to develop facility in a language other than English.

High School	Art	Music	Drama	Global Languages # of students in AP	AP
Madeira 1,452	<ul style="list-style-type: none"> -Art survey -Art ind. study -Photography -Photography ind. study 	<ul style="list-style-type: none"> -Mixed chorus -H.S band -Concert band -Color guard 		Latin 1,2,3,4,AP French 1,2,3,4,AP Spanish 1,2,3,4,AP <i>10 students total</i>	Biology Calculus AB Chemistry English Euro. history French Latin Physics Spanish Statistics US history US government
Mariemont 1,565	<ul style="list-style-type: none"> -Adv. photography -Apparel design & construction -Architectural drawing & house design -Art history -Artistic woodcraft -Beg. Photography -Computer generated art -Creative wirework -Drawing -Fabric design -Fashion design -Fiber arts -Fine woodworking -Glass studio -Graphic design -Intro. 2-D design I -Intro 2-D design II -Painting -Printmaking -Sculpture -Stained glass -Studio art -AP studio art 	<ul style="list-style-type: none"> -Basic guitar -Chorus -HS band -Music in 20th century -Music theory -Percussion methods -String orchestra 	-Theater arts	<ul style="list-style-type: none"> -French 1,2,3,4 -German 1,2,3,4 -Latin 1, 2,3,4,AP -Spanish 1,2,3,4, -Passport to France -Passport to Spain <i>Latin 25 average</i>	Biology Calculus AB Computer sci. A Comp. sci AB English Euro. history Latin lit. Latin: Vergil Physics B Statistics Studio art U.S. history US government
Fairview Park City 1,711	<ul style="list-style-type: none"> -Basic Art -Art enrichment -Advanced art -Portfolio development -Media exploration -Graphic arts & technology -Photography/digital imaging -Electronic page layout 	<ul style="list-style-type: none"> -Symphony orchestra -Band -Chorale -Music theory -Show choir 		French 1,2,3,4,AP Spanish 1,2,3,4,AP	

High School	Art	Music	Drama	Global Languages # of students in AP	AP
Bay Village 2,411	<ul style="list-style-type: none"> -Art survey -drawing & design -Computer graphics -Photography -Painting -Sculpture -Ceramics -Applied art -Advanced art -Advanced drawing & painting -Advanced computer graphics -AP Art history 	<ul style="list-style-type: none"> -Freshman choir -Treble ensemble -A Capella choir -Choraleers -Ladies show choir -Music theory / history -Symphonic band -Concert band -Marching band -Jazz ensemble /stage band -String orchestra - Orchestra winds/percussion 		French 1,2,3,4,AP Spanish 1,2,3,4,AP <i>French 2</i> <i>Spanish 1</i>	Art History Biology Calculus AB Calculus BC Chemistry English Euro. history French Physics B Physics C Statistics Spanish US government US history
Rocky River 2,545	<ul style="list-style-type: none"> -Exploratory art -Photography -Ceramics I -Ceramics II -Drawing -Painting -Sculpture 	<ul style="list-style-type: none"> -Band -Band/symphony -Music list./lit. -Music theory -Concert choir -Choir Riversedge 		French 1,2,3,4,AP Spanish 1,2,3,4,AP German 1,2,3 <i>French 20 average</i> <i>Spanish 50 average</i>	Spanish French English US history Calculus AB Calculus BC Biology Physics Chemistry
Grandview 1,145	<ul style="list-style-type: none"> -Intro to art -Drawing I -Yearbook -Ceramics -Photography -Painting -AP art -Adv. art I -Adv. art II 	<ul style="list-style-type: none"> -Marching /concert band -Jazz ensemble -Grandview singers -Concert choir 		French 1,2,3,4,5 Spanish 1,2,3,4,5	English Calculus US history Studio art

High School	Art	Music	Drama	Global Languages <i># of students in AP</i>	AP
Indian Hill 2,187	-Art I -Art II -Adv. drawing/painting -Ceramics -Ceramics II -Crafts -AP Studio art -Photography I -Photography II -Adv. photography	-Band -Orchestra -Women's Chorus -Men's Chorus -Premieres -Band/Orchestra -Band/Chorus -Orchestra /Chorus -MIDI -Arranging /Theory -AP Music theory	Theatre arts I Theater arts II	French 1,2,3,4,AP Spanish 1,2,3,4,AP Latin 1,2,3,4,AP	Biology Calculus AB Calculus BC Chemistry English Environ.Sci. Euro History French Government Latin Vergil Latin lit. Latin Macroeconomics Microeconomics Music theory Physics Spanish Statistics Studio art U.S. History
Brecksville-Broadview Heights 4,524	Not available on-line	Not available on-line	Not available on-line	Not available on-line	Studio art: drawing Studio art: 2-D design, English Calculus AB Statistics, Chemistry, Biology, Physics B World History, US history Euro. history US Government Macroeconomics Microeconomics Psychology Spanish German
Ottawa Hills 956	-2-D discovery -Painting -Drawing -Photography I -Photography II -Digital photography -Jewelry I -Jewelry II -Stained glass I -Stained Glass II -Ceramics I -Ceramics II -Graphic Design -Studio art	-Symphonic band -HR symphonic band -A Capella singers -Senior high chorale -Music theory I -Music theory II		French 1,2,3,4,AP Spanish 1,2,3,4,AP <i>French 12</i> <i>Spanish 24</i>	French Spanish

High School	Art	Music	Drama	Global Languages # of students in AP	AP
Hudson City 5,150	-Art I -Art II -Art III -Art IV -Graphic Arts I -Graphic Arts II -Graphic Arts III -Photography I -Photography II -Art & yearbook prod.	-HS band -Hudson band dancers -Orchestra -Music theory -Choir -Musical theater -Adv. musical theater		French 1,2,3,4,AP German 1,2,3,4,AP Latin 1,2,3,4,AP Spanish 1,2,3,4,AP ASL 1,2 <i>Total 25%</i> <i>French 7</i> <i>German 10</i> <i>Latin 11</i> <i>Spanish 57</i>	Computer sci. Statistics Calculus AB Calculus BC English lit. French German Latin Spanish Biology Chemistry Physics C US history US government Euro. history
Oakwood City 2025	Art I Adv. art AP studio art Graphic arts I Adv. graphic arts	Senior band Fresh. Orchestra Symphonic chorale Women's choir Music theory AP music theory	Dramatics I Dramatics II	French 1,2,3,4,AP Latin 1,2,3,4,AP Spanish 1,2,3,4,AP <i>Latin 2</i> <i>Spanish 28</i> <i>French 7</i>	English French Spanish Latin Calculus, Statistics Biology Chemistry Physics US history, Euro. history US government, Studio art Music theory
Chagrin Falls 1,903	Not available on-line Appears to offer wide variety to AP Studio and AP Art history	Not available on-line	Not available on-line	Not available on-line	Not available on-line
Wyoming 1,939	-Basic photography -Adv. photography -Ceramics -Drawing & painting -Adv. drawing & painting -Graphic design & printmaking -Metals -Adv. metals -computer graphics -AP studio art	-Chorale -Senior choir -Orchestra-strings -Sinfonia-strings -Music theory -Computerized music composition		French 1,2,3,4,AP Spanish 1,2,3,4,AP Latin 1,2,3,4,AP <i>Total 34</i>	Biology Calculus Computer sci. Chemistry English Euro. history French Latin Macroeconomics Microeconomics Spanish Studio art US history

Middle & Elementary	Art	Music	Drama	Global Languages
Madeira 1,452	K: 1 1-4: 2 5-8: 2-3 alt. w/ computers and health	K: 1 1-4: 2 5-8: elective 3		None in elementary 8: optional French, Latin, Spanish. 5
Mariemont 1,565	K-4: 2-3	K-4: 2-3		None in elementary
Fairview Park City 1,711	K-6: 1 (hour-long) 7-8: 5 for 1 semester	K-6: 1 (hour-long) 7-8: 5 for 1 semester		None in elementary 8: Spanish French 5
Bay Village 2,411	K: 1 1-2: 2 3-4: 1 (1.25 hours)	K-2: 1 3-4: 2		
Rocky River 2,545	K: 1 1-5 1 hour 6-8: rotation basis	K: 1 1-8: 1 hour		None in elementary 7-8 Spanish French
Grandview 1,145	K-3: 2 5-8: Req. 5 for 1 quarter	K-3: 2 5-7 Req. music or band 5 8: elective		K-3 none 6: Req. Latin 7: Req. French or Spanish 8: By recommendation French/Spanish
Indian Hill 2,187	K-2: 1 3-5: 1 (70 minutes)	K-2: 2 3-5: variable vocal, instrument, musical movement 6: 2-3 7-8: 5		3-5: Spanish 2 6-8: Spanish/French/ Latin 5
Brecksville- Broadview Heights 4,524	K-3: 1 4-5: 5 rotated with music and PE 6: 5 7-8: offered by the semester 5	K-3:1 4-5: 5 rotated with music and PE 6-8: Req. music or band		None in elementary. 7-8: Optional exploratory class in German/Spanish/ Mandarin Chinese
Ottawa Hills 956	K-6: 1 for 1 hour	K-6: 2 7-8: Elective		1-6 Spanish French offered alternate years: 1-2: 1 3-6: 2 7: Take both French and Spanish for 9 weeks 8: By recommendation
Hudson City 5,150	1-3: 1 for 1 hour 4-5: 1 for 1 hour	1-3: 2 4-5: 2		6: Exploratory French, Spanish 7: Exploratory German, Latin 8: German, French, Spanish
Oakwood City 2,025	K: 1 1-6: 1 (50-60 minutes)	K: 1 1-6: Music or band 2		1-6 Spanish conversation 2
Chagrin Falls 1,093				
Wyoming 1,939	K-4 1 (1 hour)	K-4: 2		None in elementary.

III. Comparative Study of Ohio Benchmark Schools Global and Diversity Awareness

Purpose and Rationale

Global conflict, increased mobility and diversity, and environmental threats are all issues that our students will face in the 21st century. The purpose of this study is to find out how Madeira and the benchmark schools are preparing their students both in and outside the classroom to increase knowledge, awareness, and understanding.

Method

The table below includes highlights from surveys. More detail is available in the original surveys at Madeira Schools central office. Since travel abroad is a transformative experience for students, we have included the independent trips led by teachers because they do provide a sense of school climate and level of interest in individual districts.

Results

Most schools state that they address global and diversity awareness by meeting state standards within the science, social studies, and health curricula. It appears that Madeira is in line with other benchmark schools; however, global and diversity awareness seem to be well developed in only three of the thirteen schools.

Conclusion

Like most schools, Madeira needs to consider how to integrate these issues into the curriculum to prepare students to be effective global citizens

Global & Diversity Awareness

All Grade Levels	Environmental Issues in Curriculum	Diversity Issues in Curriculum	Language/Culture Clubs Travel Abroad* (*Usually independent of schools)	Citizenship / Social Justice / Environmental clubs
Madeira 1,452	-In science	-In social science and language arts	-Latin club -Ohio Jr. Classical League -French club -Spanish club -teacher-led trips	-Invisible children -Darfur relief -4 th grade recycling
Mariemont 1,565	-In science	-In health & sociology		-Environmental club -Key club
Fairview Park City 1,711				
Bay Village 2,411	-Required "Earth / Environmental Science" core course in 7 th and 9 th grade. -Otherwise in science standards	-Multi-cultural advisor plans field trips, partnerships with inner-city schools, assemblies, etc.	-Travel driven by level of interest	-Model UN -Students Against Destructive Decision -Project Earth
Rocky River 2,545	-Embedded in curriculum to state standards and beyond, as needed	-Junior Great Books -Field trips -Business classes distance learning, paired with urban schools	-no language clubs - 1 diversity club - 1 teacher-led trip	-Maintenance department is "going green" -Environmental clubs
Grandview 1,145				
Indian Hill 2,187				
Brecksville-Broadview Heights 4,524				
Ottawa Hills 956	-Environmental in science -Global issues in social studies		-2 language clubs -2 travel abroad opportunities	1 club

All Grade Levels	Environmental Issues in Curriculum	Diversity Issues in Curriculum	Language/Culture Clubs Travel Abroad* (*Usually independent of schools)	Citizenship / Social Justice / Environmental clubs
Hudson City 5,150	-in science -2 outdoor land labs -MS: week-long environmental camp -science/math entrepreneur conference on environmental issues	- partnerships with diverse schools -service learning -"this is something we consistently try to address"		- student/ community projects - students teamed with city government
Oakwood City 2,025	-In science and social studies standards	- K-3 Second Step (Committee for Children) -4-6 Steps to Respect -Diversity in Language arts reading	-International Club -French, Spanish, Latin Clubs & honor societies -Annual Costa Rica trip -Occasional France trips	-Ecology Club Project Support group (links students with and w/o disabilities -OMUN -League of Student Voters
Chagrin Falls 1,903				
Wyoming 1,939	-In science -Environmental science class in HS	-Summer reading focus on different cultures - Social Service Field Experience class in HS -Global Perspectives class in HS	- 3 language clubs HS -1 language club MS - Culture club ES - MS French trip to Quebec	- 4 clubs - student-led programs,e.g. Darfur, Invisible Children, African American Heritage, Modern Day Slavery -Rachel's Challenge MS/HS

IV. Comparison of Ohio Benchmark Schools: Transition to College

Purpose and Rationale

Many Madeira graduates attend public, in-state colleges and universities, particularly the University of Cincinnati. Since some parents have expressed interest in whether this is a function of Madeira's culture or a result of lack of understanding of financial aid opportunities at private / out-of-state institutions, the benchmark schools were asked about their out-of-state placements and their counselor/student ratio. Finally, as just one measure of effective preparation for college, the committee included data from the Ohio Board of Regents on the percentage of students who are placed in remedial college classes.

Methods

Sources of information were schools surveys and the Ohio Board of Regents (See Appendix II).

Results

Madeira does not have counselors exclusively devoted to college counseling; however, of the schools with dual guidance/college counselors, Madeira's student to counselor ratio is the lowest. Fewer of Madeira's graduates are placed in remedial math and/or English in Ohio colleges and universities than from any of the benchmark schools. Madeira sends fewer graduates to out-of-state colleges than any of the schools, but one. Mariemont and Wyoming, which both have dedicated college counselors, send 40% and 50% respectively of their graduates out-of-state.

Conclusions

Madeira's counselors have a small student load for college counseling compared to other schools. No real conclusions can be drawn from this data about why so few students choose to expose themselves to new places or more competitive institutions. However, the contrast between Madeira's students and both Mariemont's and Wyoming's students suggests that perhaps dedicated college counselors might be more focused on encouraging students in this respect. While the low number of students placed in remedial college classes is very encouraging, this figure could possibly be partly because more of our brighter students stay in Ohio.

Transition to College – Ohio Similar Schools

	Counselor student ratio	Out-of- State Placement	Graduates placed in Ohio college remedial classes
Madeira 1,452	1:50	<20%	14%
Mariemont 1,565	Dedicated college counselor 1:120	40%	22%
Fairview Park City 1,711			46%
Bay Village 2,411	College/guidance counselor 1:63	17%	29%
Rocky River 2,545	College/guidance counselors 1:302	“Varies year to year”	35%
Grandview 1,145			32%
Indian Hill 2,187			15%
Brecksville- Broadview Heights 4,524			35%
Ottawa Hills 956	College/guidance counselor 1:74	40%	15%
Hudson City 5,150	College/guidance counselor 1:352	25%	18%
Oakwood City 2,025	College/guidance counselor 1:159		22%
Chagrin Falls 1,903			21%
Wyoming 1,939	Dedicated college counselor 1: all seniors	50%	16%

V. Factors Contributing to Success in High-Achieving Countries

Purpose and Rationale

Certain countries tend to rank near the top in international comparisons. Since some experts believe that the USA might benefit from studying how these countries approach education, the committee decided to review some of the literature

Methodology

The information was accessed through the Educational Research database (ERIC), and the US Department of Education's National Center for Education and Statistics.

Results

According to international comparative studies, such as the Program for International Student Achievement (PISA) and the Progress in International Reading Literacy Study, the United States ranks low in educational achievement (see Appendix III & IV) even though American children spend more time in school than their counterparts in many countries, and the US spends more to educate them. According to Lawrence Baines, for example, while Finnish students spend 600 hours a year in school, American children spend 1,100 hours. Even though the relationship between patterns of homework and national achievement suggests that . . . more homework may actually undermine national achievement," the US "leads the world in assigning homework," totaling about 140 minutes per week in secondary school math. Meanwhile, Korean students average 20 minutes less math homework a week (98-99). While the US spends \$6,043 per capita on school age children, Finland spends \$4,800 (Molett "Interview").

Research suggests that there are some key factors contributing to the educational success of these countries.

- Teachers - Top student performers are carefully chosen to become teachers. As students leave high school, the top 1/3 is allowed to enter the teaching profession. The profession is as highly esteemed in these countries as a medical doctor or lawyer. In Finland, for example, becoming a teacher is the most sought-after profession (Keller).

- Teacher salaries - Competitive starting year salaries are factors in all top-ranking countries. While a figure of \$45,000 was given as a base salary for teachers in Asian countries: “Usually on par with other college graduates,” the average annual salary for *all* US teachers is \$47,000 (Wallis). An editorial in *American School Board Journal* suggests that teachers need to be employed by the state instead of districts and be on state salaries. They say that our systems are back loaded with health and benefits attractive to veteran teachers instead of competitive starting salaries that would attract ambitious young people (“Globalization” 4).
- Teacher preparation - The first year of teaching is seen as an essential year that needs widespread support with high quality coaches and resources to perfect their instructional level (Keller). Reference to teacher level of expertise in their subject area when teaching middle and high school students is noted in several reports. International teacher colleges’ focus on teaching teachers the specific subject in depth and in teaching teachers how to disseminate their knowledge to different learners.
- Curriculum - The curriculum is not standardized test-driven. There is much freedom given to teachers to be creative, to go in depth, and to spend time as needed with each student. Finnish schools employ a number of special education teachers to directly support up to two thirds of each school population. The very top students and the at-risk students are given daily support (“Every Child”).
- Fine arts - A huge emphasis on incorporating the arts with the academic subjects is given. The arts are not considered an extra to be cut if budgets get tight. The arts—specifically music education—are seen as a fundamental need for brain development. For example, Finland, with a population only a third larger than San Diego, has 27 symphony orchestras and 12 opera houses. They believe that cultural development of the mind and soul goes hand in hand (Mollet “Music”). It is obvious that their inspired Finnish children are culturally enriching their country as adults.

Conclusion

American educators, including those in Madeira, could benefit by learning more about what is working well in other countries. Although a major overhaul of the entire educational system is a challenge that is beyond the scope of this report, countries such as Finland and South Korea may be the source of some good ideas that are appropriate for Madeira as we prepare our students for the future.

Works Cited

- "The Arts are Important for All Students to Learn: Reasons to Support Arts Education." *Ohio Alliance for Arts Education*. July 2006. 22 Feb. 2008. <http://www.oaae.net/>.
- Baines, Lawrence. "Learning from the World: Achieving More by Doing Less." *Phi Delta Kappan* October 2007: 98-100.
- Black, Susan. "Our Tongue-Tied Students." *American School Board Journal* August 2006: 46-48.
- "Every Child is Special in Finland's Schools." *Edukey: Empowering Parents*. 2008. 27 Mar. 2008. <<http://www.edukey.net/2008/02/14/every-child-special-in-finlands-schools/>>.
- "Globalization: Choosing Change that's 'Tough' to Swallow." *American School Board Journal*. Supplement. March 2007: 4-5.
- "High School Report: Making the Transition from High School to College in Ohio." 2005. Ohio Board of Regents. 24 March, 2008. <http://regents.ohio.gov/perfrpt/hs_2007/>.
- Keller, Bess. "Teachers Seen as Making Difference in World's Top Schools." *Education Week* 8 Nov. 2007. *Wilson Web*. 12 Nov. 2007. <<http://vnweb.hwwilsonweb.com>>.
- Molett, David. "The Interview that Will Not Be Published." The Teachers' Education Institute. March 31, 2008. <<http://members.cox.net/tei/Interview.htm>>.
- Molett, David. "Music." The Teachers' Education Institute. 24 March 2008. <<http://members.cox.net/monumollet/SubjectMusic.pdf>>.
- "Similar District Methodology" Ohio Department of Education. 24 March 2008. <http://webapp2.ode.state.oh.us/similar_districts/>.
- "Program in International Reading Literacy Study (PIRLS)." Institute of Education Sciences. National Center for Education Statistics. U.S. Dept. of Education. 24 March 2008. <<http://nces.ed.gov/surveys/pirls/>>.
- "Program for International Student Assessment" (PISA). Institute of Education Sciences. National Center for Education Statistics. U.S. Dept. of Education. 24 March 2008. <<http://nces.ed.gov/Surveys/PISA/>>.
- Sloan, Katherine, and Linda Nathan. "Art Transforms Education: A Boston Pilot School Puts Student Learning Center Stage." *New England Board of Higher Education* Summer 2005: 18-20.

Works Cited

2007 College-Bound Seniors: Total Profile Report. College Board SAT. 2007. 27 Mar. 2008. <<http://professionals.collegeboard.com/data-reports-research/sat/cb-seniors-2007>>.

Wallis, Claudia. "How to Make Better Teachers." *Time* 25 Feb. 2008: 28-34.

**Appendix I - FY 2007
Similar Districts Grouping**

District	County	Average Daily Membership (ADM)	Poverty as % of ADM	% of Population Administrative Professional Occupations	Median Income	% Population College Degree or Higher	Expenditure Per Pupil 2007	Population Density	% Minority Students
Madeira City Schools 7465 Loannes Drive Madeira, Ohio 45243	Hamilton	1,452	0.1%	51.5%	\$44,271	52.2%	\$10,318	2,621	3.9%
Marionmont City Schools 6743 Chestnut Street Mariemont, Ohio 45227	Hamilton	1,565	0.8%	53.6%	\$40,953	58.8%	\$11,732	2,217	5.3%
Fairview Park City Schools 4507 W. 213 Street Fairview Park, Ohio 44126	Cuyahoga	1,711	1.4%	41.5%	\$35,729	41.9%	\$9,892	3,841	6.9%
Bay Village Schools 377 Dover Center Road Bay Village, Ohio 44140	Cuyahoga	2,411	3.0%	52.2%	\$49,576	59.7%	\$10,418	3,469	2.8%
Rocky River City Schools 21600 Center Ridge Road Rocky River, Ohio 44116	Cuyahoga	2,545	5.0%	48.7%	\$40,884	51.1%	\$10,818	4,299	4.5%
Grandview Schools 1587 West Third Avenue Columbus, Ohio 43212	Franklin	1,145	9.0%	52.5%	\$38,773	53.1%	\$13,004	4,596	5.7%
Indian Hill Schools 6855 Drake Road Indian Hill, Ohio 45243	Hamilton	2,187	0.0%	59.9%	\$60,572	66.2%	\$13,378	586	7.6%

**Appendix I - FY 2007
Similar Districts Grouping**

District

District	County	Average Daily Membership (ADM)	Poverty as % of ADM	% of Population Administrative Professional Occupations	Median Income	% Population College Degree or Higher	Expenditure Per Pupil 2007	Population Density	% Minority Students
Ottawa Hills Local Schools 3600 Indian Road Toledo, Ohio 43606	Lucas	956	0.1%	68.5%	\$61,476	73.3%	\$13,343	2,491	4.3%
Hudson City Schools 2500 Hudson-Aurora Road Hudson, Ohio 44236	Summit	5,150	4.0%	57.0%	\$62,434	70.0%	\$11,109	791	3.7%
Oakwood City Schools 20 Rubicon Road Dayton, Ohio 45409	Montgomery	2,025	1.0%	65.0%	\$55,033	70.0%	\$9,445	4,196	3.4%
Chagrin Falls Schools 400 E. Washington Street Chagrin Falls, Ohio 44022	Cuyahoga	1,903	1.0%	60.9%	\$54,627	69.3%	\$11,325	831	2.6%
Wyoming City Schools 420 Springfield Pike Wyoming, Ohio 45215	Hamilton	1,954	0.1%	65.6%	\$56,337	74.0%	\$10,677	2,880	15.8%
Brecksville-Broadview Heights 6638 Mill Road Brecksville, Ohio 44141	Cuyahoga	4,524	3.0%	49.1%	\$43,600	47.3%	\$10,359	917	4.0%

**Appendix II - Profile of Recent
School Graduates Enrolled as
First Year College Students**

**Five Year Averages
Fall 2001 to Fall 2005**

District

Appendix II - Profile of Recent School Graduates Enrolled as First Year College Students	Participation All first-year students				Preparation ACT/SAT Exam Takers		Remedial Course Enrollment Enrolled in Public Colleges	
	Number of First-Year Ohio College Students	Percent of HS Graduates Entering College In Ohio	Percent of HS Graduates Entering A 4 Year, P/P College	Percent of HS Graduates Entering A Public 2 Yr. College	Average Entrance Exam ACT Score	Percent Taking at least a Minimum College Prep Curriculum	Percent Taking Remedial Math	Percent Taking Remedial English
Five Year Averages Fall 2001 to Fall 2005								
District								
Madeira City Schools	60	53%	46%	7%	23	81%	13%	12%
Mariemont City Schools	51	43%	38%	5%	23	82%	13%	14%
Fairview Park City Schools	133	78%	56%	22%	22	77%	41%	22%
Bay Village Schools	119	64%	56%	9%	23	74%	25%	14%
Rocky River City Schools	118	64%	55%	10%	23	81%	26%	18%
Grandview Schools	53	52%	41%	12%	24	71%	28%	13%
Indian Hill Schools	68	43%	39%	4%	24	78%	10%	10%
Brecksville-Broadview Heights	225	67%	55%	12%	23	86%	30%	18%
Ottawa Hills Local Schools	38	53%	50%	3%	24	72%	13%	5%
Hudson City Schools	245	61%	59%	2%	24	78%	15%	6%
Oakwood City Schools	73	51%	46%	6%	24	79%	19%	10%
Chagrin Falls Schools	70	47%	43%	4%	24	81%	19%	10%
Wyoming City Schools	65	42%	41%	1%	24	66%	12%	9%

Figure 3. Average scores for fourth-grade students in participating PIRLS jurisdictions on combined reading literacy scale, literary subscale, and informational subscale, by jurisdiction: 2006

Average combined reading literacy score		Average literary subscale score		Average informational subscale score		
Jurisdiction	score	Jurisdiction	score	Jurisdiction	score	
Russian Federation	565	Canada, Alberta	561	Hong Kong, SAR ¹	568	□ Average is higher than the U.S. average
Hong Kong, SAR ¹	564	Russian Federation	561	Russian Federation	564	
Canada, Alberta	560	Canada, British Columbia	559	Singapore	563	
Canada, British Columbia	558	Hong Kong, SAR ¹	557	Luxembourg	557	□ Average is not measurably different from the U.S. average
Singapore	558	Hungary	557	Canada, Alberta	556	
Luxembourg	557	Canada, Ontario	555	Canada, British Columbia	554	
Canada, Ontario	555	Luxembourg	555	Canada, Ontario	552	□ Average is lower than the U.S. average
Hungary	551	Singapore	552	Bulgaria	550	
Italy	551	Italy	551	Italy	549	
Sweden	549	Germany	549	Sweden	549	
Germany	548	Denmark	547	Netherlands ²	548	
Belgium (Flemish) ²	547	Sweden	546	Belgium (Flemish) ²	547	
Bulgaria	547	Netherlands ²	545	Germany	544	
Netherlands ²	547	Belgium (Flemish) ²	544	Denmark	542	
Denmark	546	Canada, Nova Scotia	543	Hungary	541	
Canada, Nova Scotia	542	Bulgaria	542	Latvia	540	
Latvia	541	Lithuania	542	Canada, Nova Scotia	539	
United States ²	540	United States ²	541	Chinese Taipei	538	
England	539	England	539	England	537	
Austria	538	Latvia	539	United States ²	537	
Lithuania	537	Austria	537	Austria	536	
Chinese Taipei	535	Slovak Republic	533	New Zealand	534	
Canada, Quebec	533	Chinese Taipei	530	Canada, Quebec	533	
New Zealand	532	Canada, Quebec	529	Lithuania	530	
Slovak Republic	531	New Zealand	527	Scotland ²	527	
Scotland ²	527	Scotland ²	527	Slovak Republic	527	
France	522	Poland	523	France	526	
Slovenia	522	Slovenia	519	Slovenia	523	
Poland	519	France	516	Poland	515	
Spain	513	Israel	516	Moldova	508	
Israel	512	Spain	516	Spain	508	
Iceland	511	Iceland	514	Israel	507	
Belgium (French)	500	Norway ³	501	Iceland	505	
Moldova	500	Belgium (French)	499	Belgium (French)	498	
Norway ³	498	Romania	493	Norway ³	494	
Romania	489	Moldova	492	Romania	487	
Georgia	471	Georgia	476	Georgia	465	
Macedonia	442	Macedonia	439	Macedonia	450	
Trinidad and Tobago	436	Trinidad and Tobago	434	Trinidad and Tobago	440	
Iran	421	Iran	426	Iran	420	
Indonesia	405	Indonesia	397	Indonesia	418	
Qatar	353	Qatar	358	Qatar	356	
Kuwait	330	Kuwait	340	Morocco	335	
Morocco	323	Morocco	317	Kuwait	327	
South Africa	302	South Africa	299	South Africa	316	
PIRLS scale average	500	PIRLS scale average	500	PIRLS scale average	500	

¹Hong Kong, SAR, is a Special Administrative Region (SAR) of the People's Republic of China.

²Met guidelines for sample participation rates only after replacement schools were included. See appendix B for more information about participation rates and the use of replacement schools in sampling.

³Did not meet guidelines for sample participation rates after replacement schools were included. See appendix B for more information about participation rates and the use of replacement schools in sampling.

NOTE: Jurisdictions are ordered on the basis of average scores, from highest to lowest. Score differences as noted between the United States and other jurisdictions are statistically significant at the .05 level of statistical significance ($p < .05$).

SOURCE: International Association for the Evaluation of Educational Achievement, Progress in International Reading Literacy Study (PIRLS), 2006.

Table 2. Average scores of 15-year-old students on combined science literacy scale and science literacy subscales, by jurisdiction: 2006

Combined science literacy scale		Science literacy subscales			
Jurisdiction	Score	Identifying scientific issues	Explaining phenomena scientifically	Using scientific evidence	
Jurisdiction	Score	Jurisdiction	Score	Jurisdiction	Score
OECD average	500	OECD average	499	OECD average	500
OECD jurisdictions		OECD jurisdictions		OECD jurisdictions	
Finland	565	Finland	555	Finland	567
Canada	554	New Zealand	530	Japan	544
Japan	531	Australia	528	Canada	532
New Zealand	530	Netherlands	531	Korea, Republic of	538
Australia	527	Canada	532	New Zealand	537
Netherlands	525	Japan	522	Australia	531
Korea, Republic of	522	Netherlands	522	Netherlands	528
Germany	516	Australia	520	Switzerland	519
United Kingdom	515	Germany	519	Belgium	518
Czech Republic	513	Hungary	518	Germany	515
Switzerland	512	United Kingdom	517	United Kingdom	512
Austria	511	Austria	516	France	511
Belgium	510	Korea, Republic of	512	Ireland	509
Ireland	508	Sweden	510	Austria	509
Hungary	509	Switzerland	508	Czech Republic	501
Sweden	503	Poland	506	Hungary	497
Poland	498	Ireland	505	Sweden	496
Denmark	496	Belgium	503	Poland	494
France	495	Denmark	501	Luxembourg	492
Iceland	491	Slovak Republic	501	Iceland	491
United States	489	Norway	495	Denmark	489
Slovak Republic	488	Spain	490	United States	489
Spain	488	Iceland	488	Spain	485
Norway	487	United States	486	Slovak Republic	478
Luxembourg	486	Luxembourg	483	Norway	473
Italy	475	France	481	Portugal	472
Portugal	474	Italy	480	Italy	467
Greece	473	Greece	476	Greece	465
Turkey	424	Portugal	469	Turkey	417
Mexico	410	Turkey	423	Mexico	402
		Mexico	406		
Non-OECD jurisdictions		Non-OECD jurisdictions		Non-OECD jurisdictions	
Hong Kong-China	542	Hong Kong-China	549	Hong Kong-China	542
Chinese Taipei	532	Chinese Taipei	545	Liechtenstein	536
Estonia	531	Estonia	541	Chinese Taipei	532
Liechtenstein	522	Slovenia	523	Estonia	531
Slovenia	519	Macao-China	520	Slovenia	516
Macao-China	511	Liechtenstein	518	Macao-China	512
Croatia	493	Lithuania	494	Latvia	491
Latvia	490	Croatia	492	Croatia	490
Lithuania	488	Latvia	486	Lithuania	487
Russian Federation	479	Russian Federation	483	Russian Federation	481
Israel	454	Bulgaria	444	Israel	460
Chile	438	Israel	443	Chile	440
Republic of Serbia	436	Republic of Serbia	441	Uruguay	429
Bulgaria	434	Jordan	438	Republic of Serbia	425
Uruguay	428	Chile	432	Thailand	423
Jordan	422	Romania	426	Bulgaria	417
Thailand	421	Uruguay	423	Romania	407
Romania	418	Thailand	420	Republic of Montenegro	407
Republic of Montenegro	412	Republic of Montenegro	417	Jordan	405
Indonesia	393	Azerbaijan	412	Indonesia	386
Argentina	391	Indonesia	395	Argentina	385
Brazil	390	Brazil	390	Colombia	383
Colombia	388	Argentina	386	Tunisia	382
Tunisia	386	Tunisia	383	Brazil	378
Azerbaijan	382	Colombia	379	Azerbaijan	344
Qatar	349	Qatar	356	Qatar	324
Kyrgyz Republic	322	Kyrgyz Republic	334	Kyrgyz Republic	288

■ Average is higher
than the U.S. average

□ Average is not measurably different
from the U.S. average

□ Average is lower
than the U.S. average

NOTE: The Organization for Economic Cooperation and Development (OECD) average is the average of the national averages of the OECD member jurisdictions. Because the Program for International Student Assessment (PISA) is principally an OECD study, the results for non-OECD jurisdictions are displayed separately from those of the OECD jurisdictions and are not included in the OECD average. Jurisdictions are ordered on the basis of average scores, from highest to lowest within the OECD jurisdictions and non-OECD jurisdictions. Combined science literacy scores are reported on a scale from 0 to 1,000. Because of an error in printing the test booklets, the United States mean performance may be misestimated by approximately 1 score point. The impact is below one standard error. For details see appendix B. Score differences as noted between the United States and other jurisdictions (as well as between the United States and the OECD average) are significantly different at the .05 level of statistical significance.

SOURCE: Organization for Economic Cooperation and Development (OECD), Program for International Student Assessment (PISA), 2006.