

# Teachers Talk Tech 2005

*Tools for Teachers vs. Tools for Teaching*



# Mission and Focus

CDW-G employed QED to conduct a custom research study with K-12 teachers. Quantifiable teacher input helps taxpayers and administrators understand the importance of technology investments. Teachers are often in the best position to see the true impact of technology on learning and knowing what it can and cannot do. Thus, feedback from classroom educators can be essential in helping communities make academic and technological choices that are in the best long-term interests of students and schools.

Specific objectives of this study were to:

- Learn how K-12 teachers use computer technology
- Evaluate technology's role and efficacy in education
- Give K-12 teachers a voice regarding computer technology
- Contribute to knowledge about and support for the American educational process

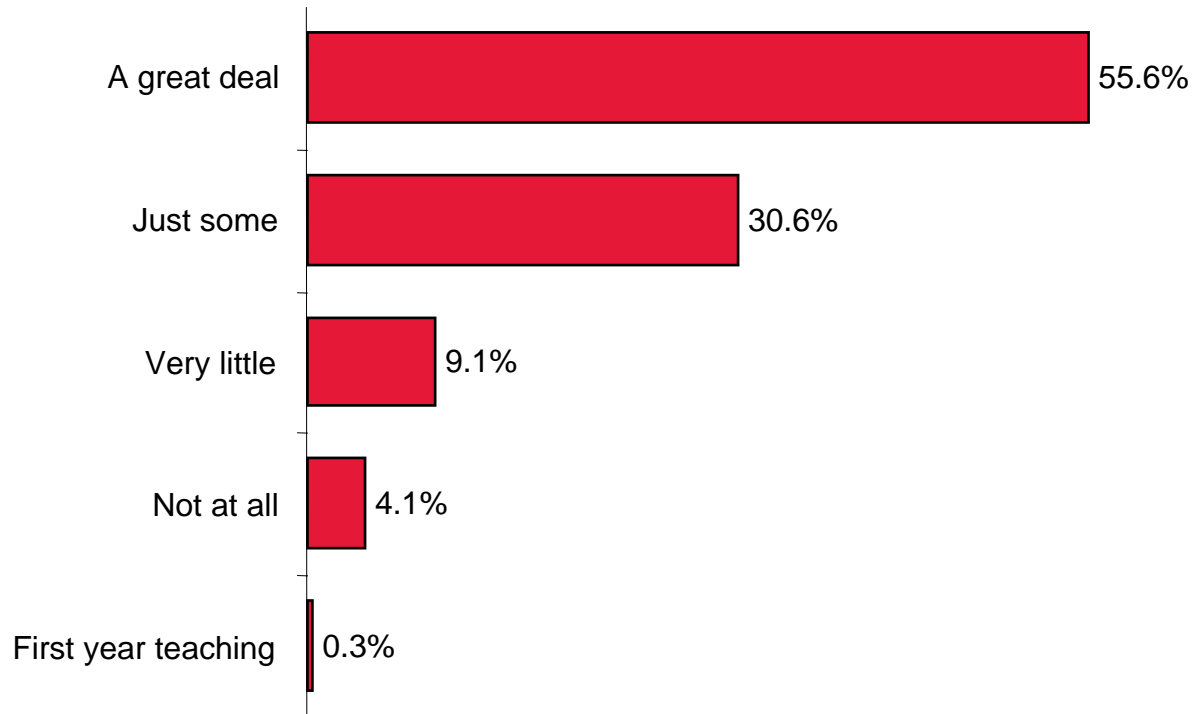
# Key Findings for 2005

## *Tools for Teachers vs. Tools for Teaching*

- While technology continues to gain acceptance as a tool for teachers, classroom technology is not yet a standard tool for teaching:
  - Computer technology has changed teaching “a great deal.”
  - Teachers increasingly cite computers as effective teaching tools, but just over half integrate computers into daily curriculum.
  - Administrative uses for technology continue to increase in number and effectiveness.
  - The link between computers and performance on standardized tests remains unproven.
  - Professional development centers on administrative functions.
  - Almost two-thirds of the respondents think that there are too few computers in their classrooms.

# Technology's Increasing Role

## *Computer Technology – Changing How You Teach*

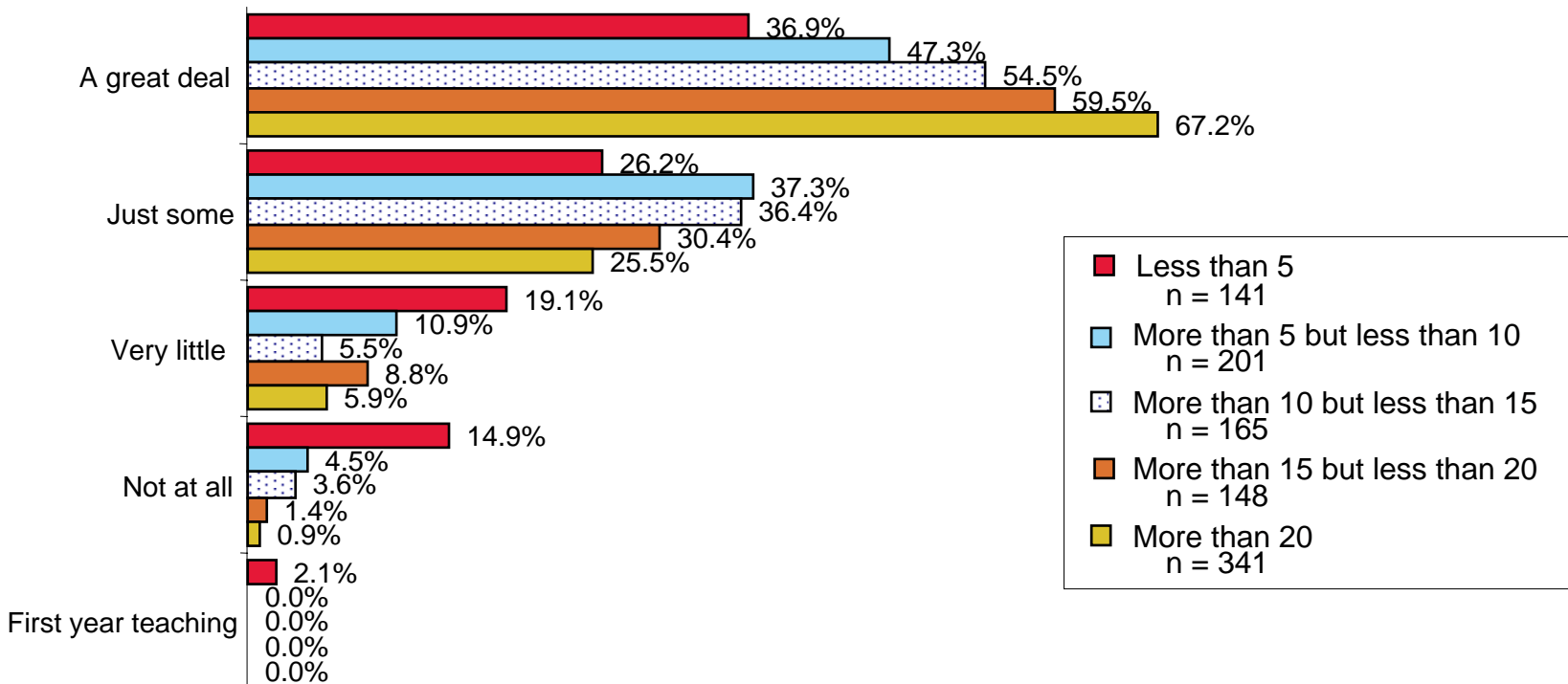


- More than half of the respondents (55.6%) say that computer technology has changed how they teach “a great deal.”

Q) *Since you began teaching, has computer technology changed the way you teach?*

# Technology's Increasing Role

## *Broad Adoption by Teachers at All Experience Levels*

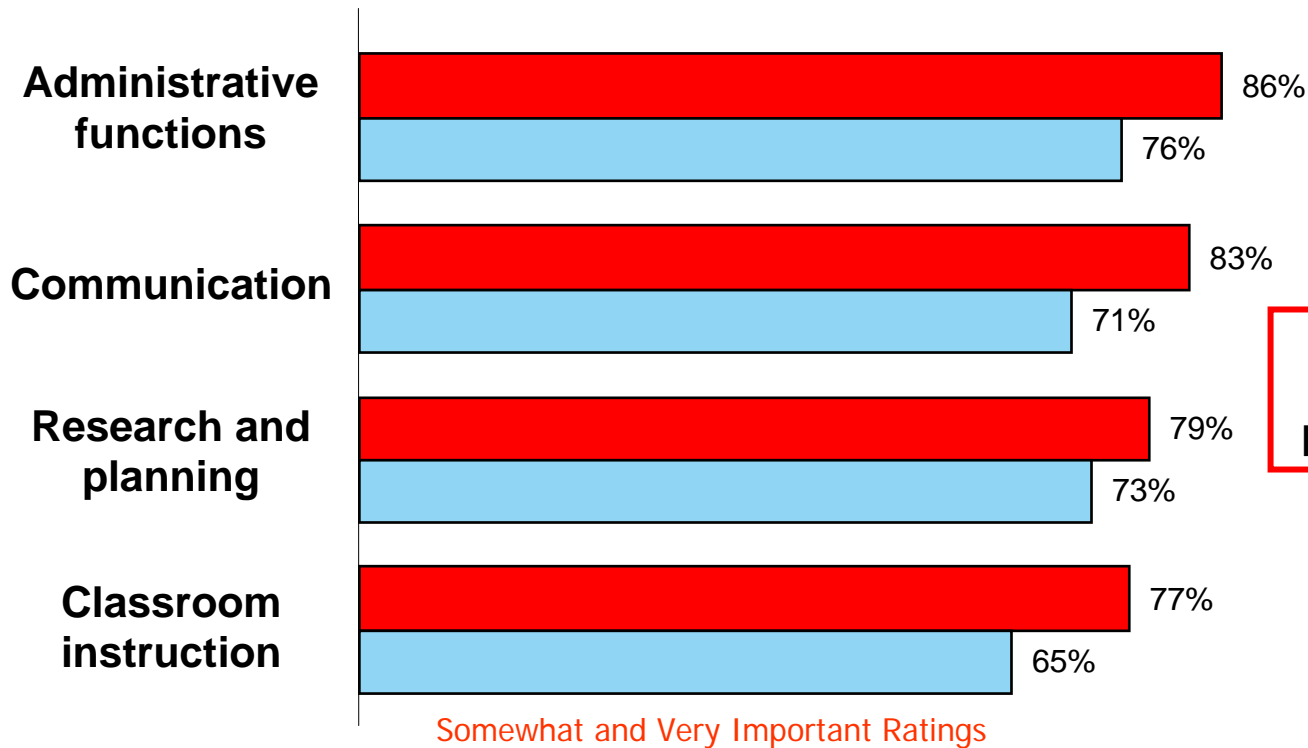


- Established, seasoned teachers indicate no innate resistance to classroom technology.

Q) Since you began teaching, has computer technology changed the way you teach?

# Technology's Increasing Role

*Technology is Pervasive and Growing in Every Role*



**Growth within every teacher function between 2004 & 2005**

- 2005 n=1000
- 2004 n=1000

**Of Interest:** All percentage changes between 2004 and 2005 are statistically significant

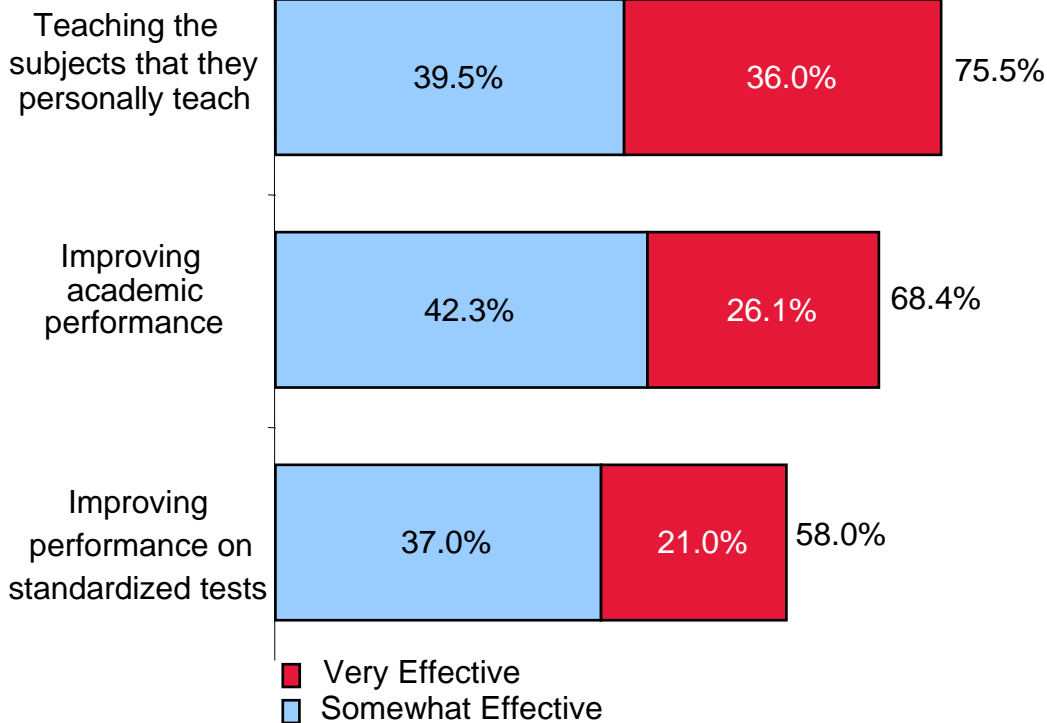


Q) Rate the importance of computer technology for you personally in each of the following teacher-related functions:

# Technology as a Teacher Tool

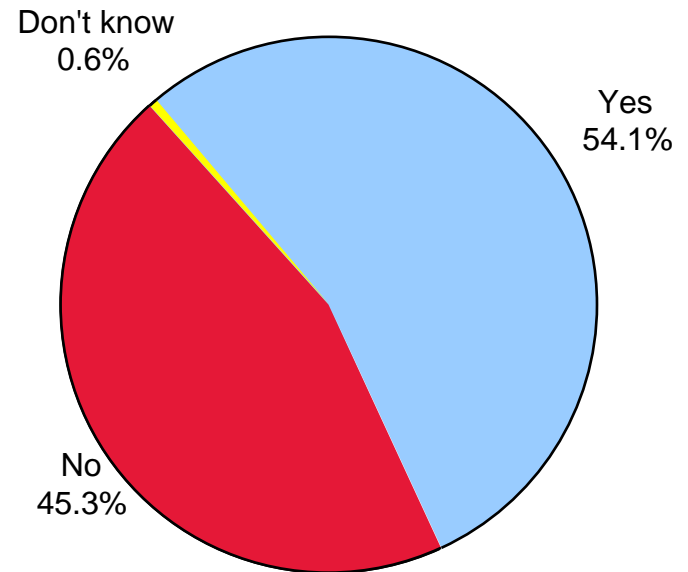
Nearly 76 Percent Cite Value... but Only 54 Percent Use Daily

## Technology Is An Effective Tool For:



Q) Overall, how effective do you feel computers are in the following areas?

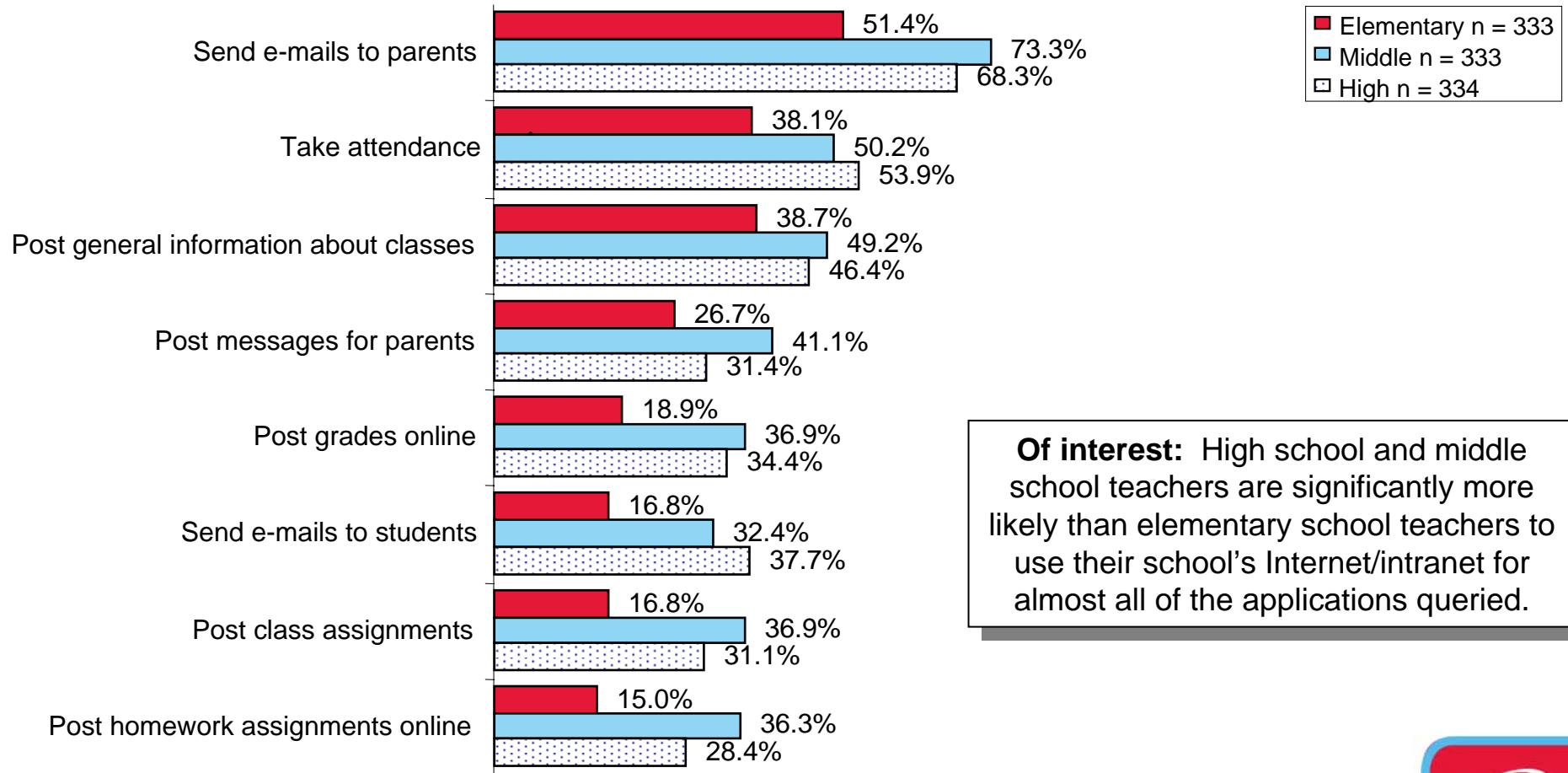
## Do You Integrate Computers in Your Daily Curriculum?



Q) Do you integrate computers into your daily curriculum?

# Technology as a Teacher Tool

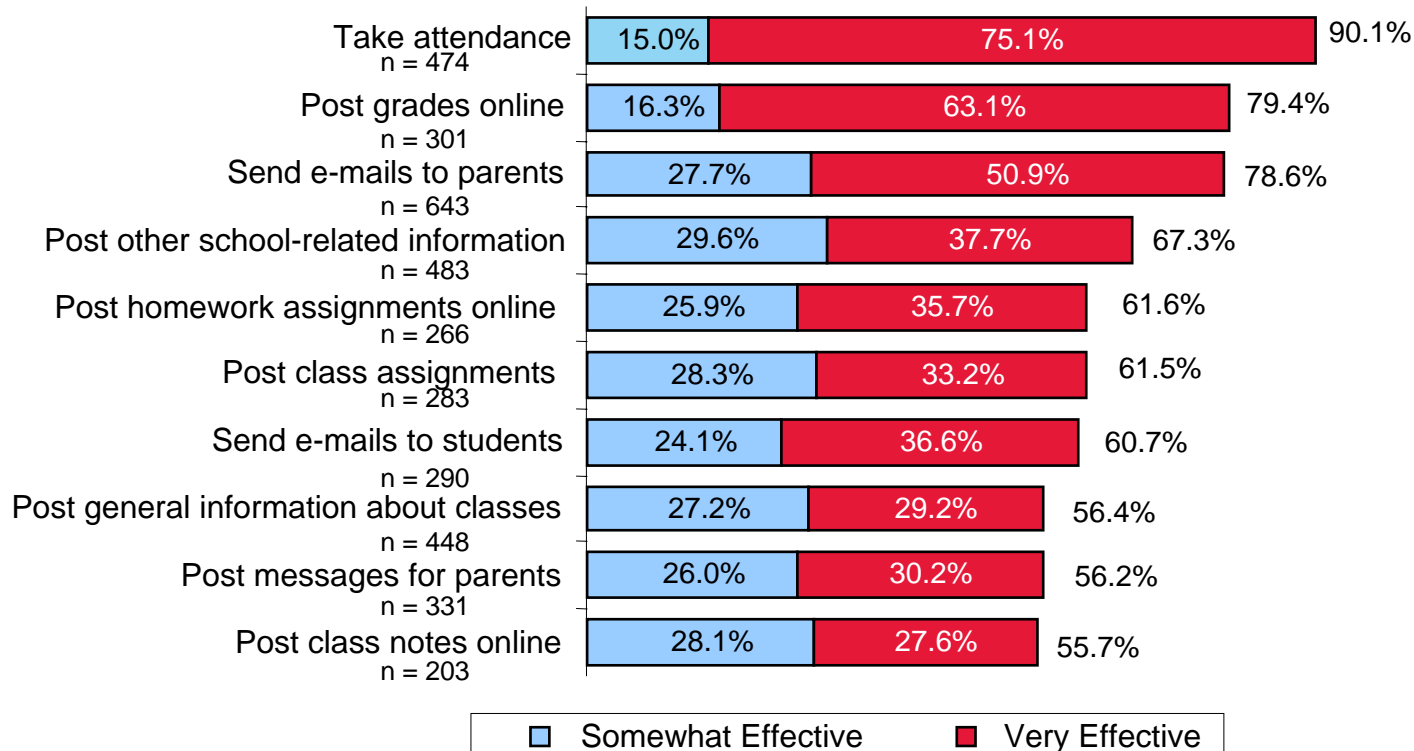
## Administrative Applications Readily Available, Often Used



Q) These applications may be used with your school's Internet/intranet Web site. Do you use these applications?

# Technology as a Teacher Tool

## Teachers Perceive the Value of Administrative Uses

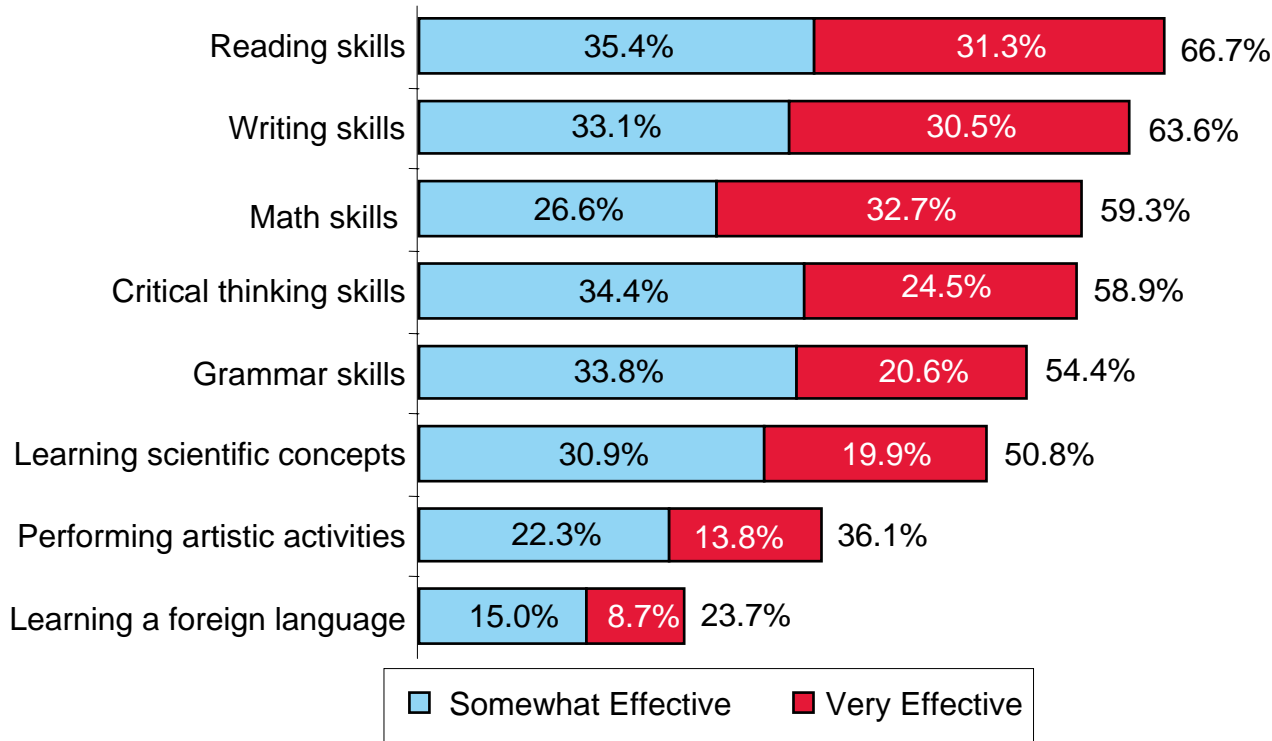


Q) These applications may be used with your school's Internet/intranet Web site. Rate how effective they are at improving communication with students and/or parents:



# Technology as a Teaching Tool

## *The Effectiveness of Technology Varies Widely by Subject*



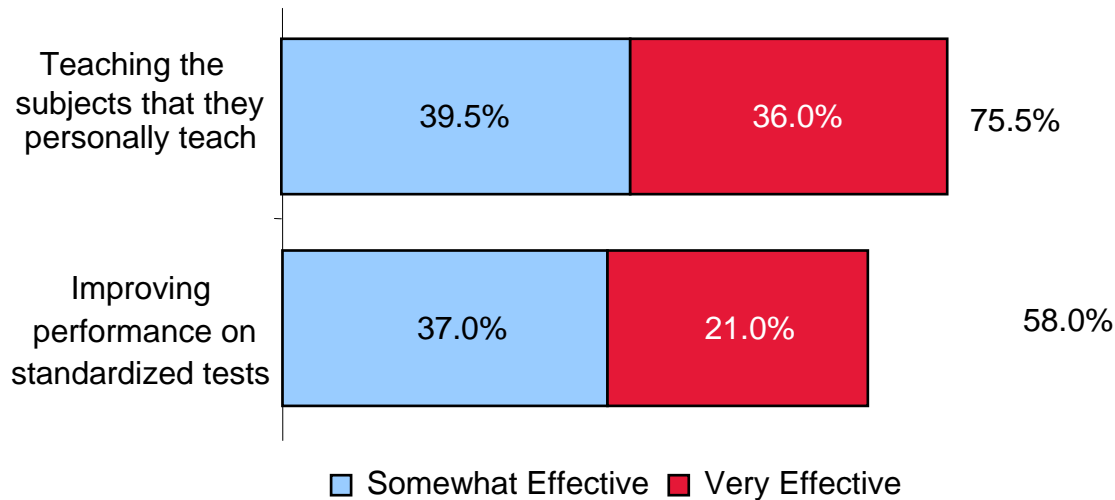
- Respondents rank computers most effective as a classroom tool for teaching reading skills, writing skills, math skills and critical thinking skills.

*Q) These are several areas of instruction including some that you may or may not teach. For each, rate how effective you feel computers are as a classroom tool in addressing these skills:*

# Technology as a Teaching Tool

*Linking Technology and Tests Remains Difficult*

Technology Is An Effective Tool For:



- Teachers remain somewhat skeptical about how technology can improve performance on standardized tests. Given the increasing importance of standardized tests, this tenuous link is critical to increasing the use of technology as a tool for teaching.

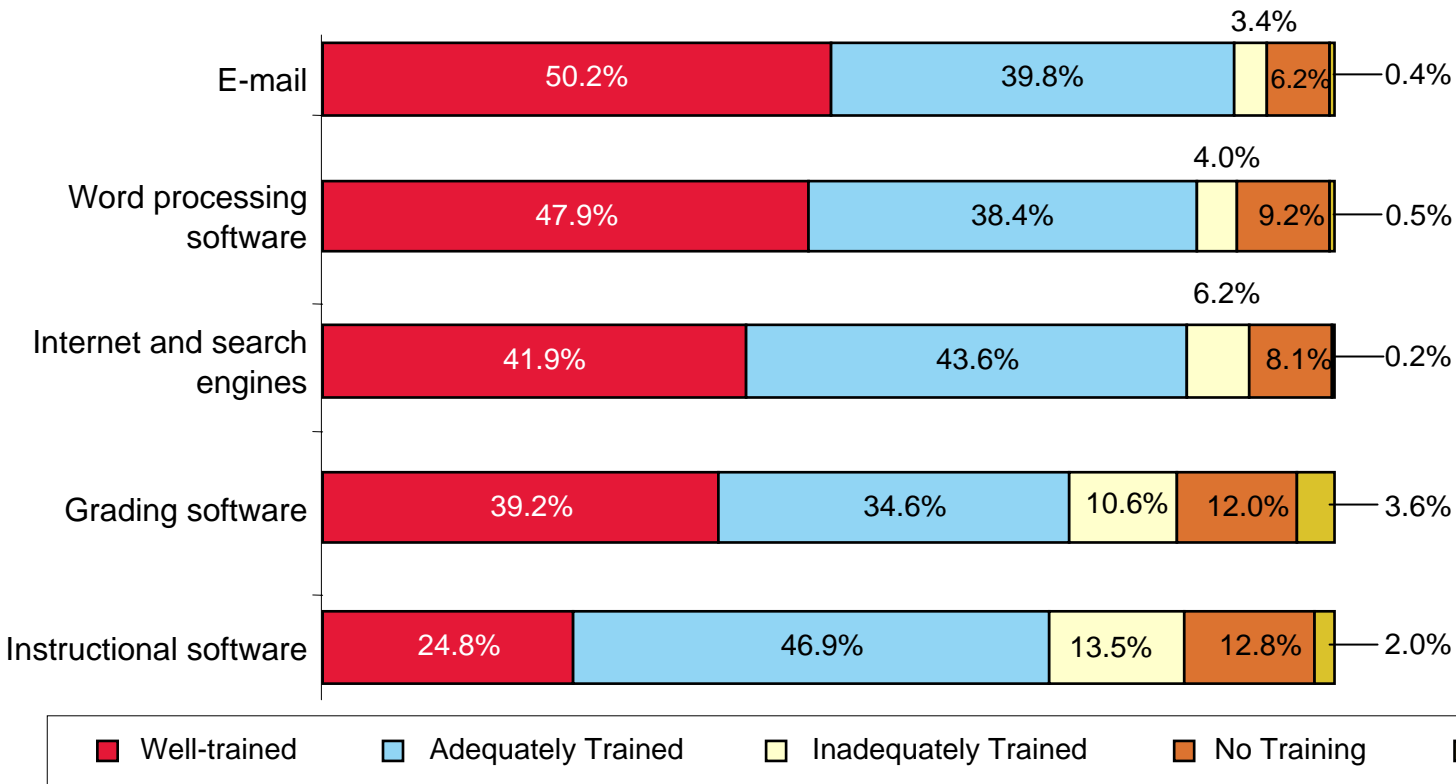
Q) Overall, how effective do you feel computers are in the following areas:



# Technology as a Teaching Tool

## *Professional Development Focuses on Administrative Functions*

Adequacy of Professional Development/Training:



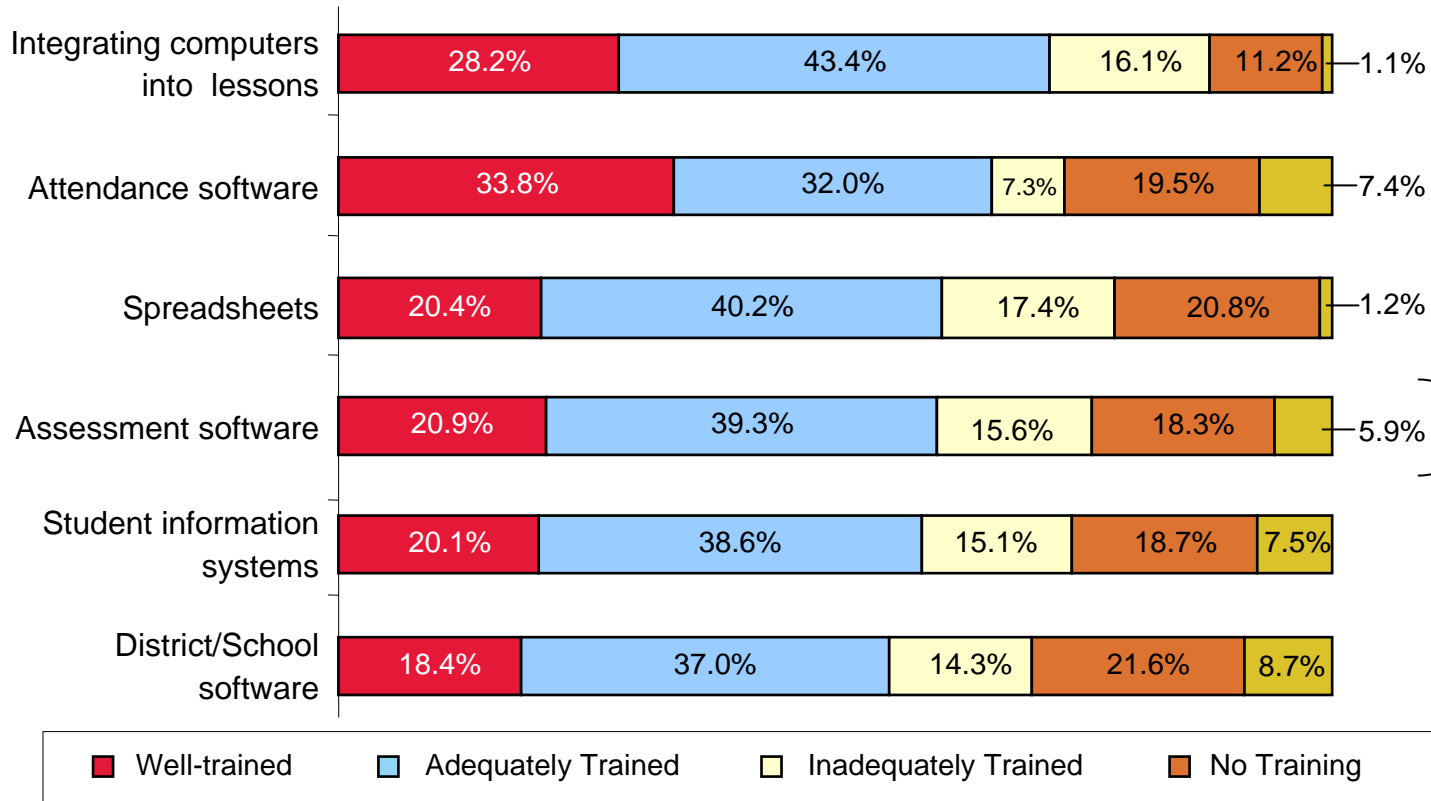
Q) Rate the adequacy of your training in the following areas:



# Technology as a Teaching Tool

## Professional Development for Assessment Software Lags

### Adequacy of Professional Development/Training:



**Note:** "No Training" might also include schools that do not have the stated software.

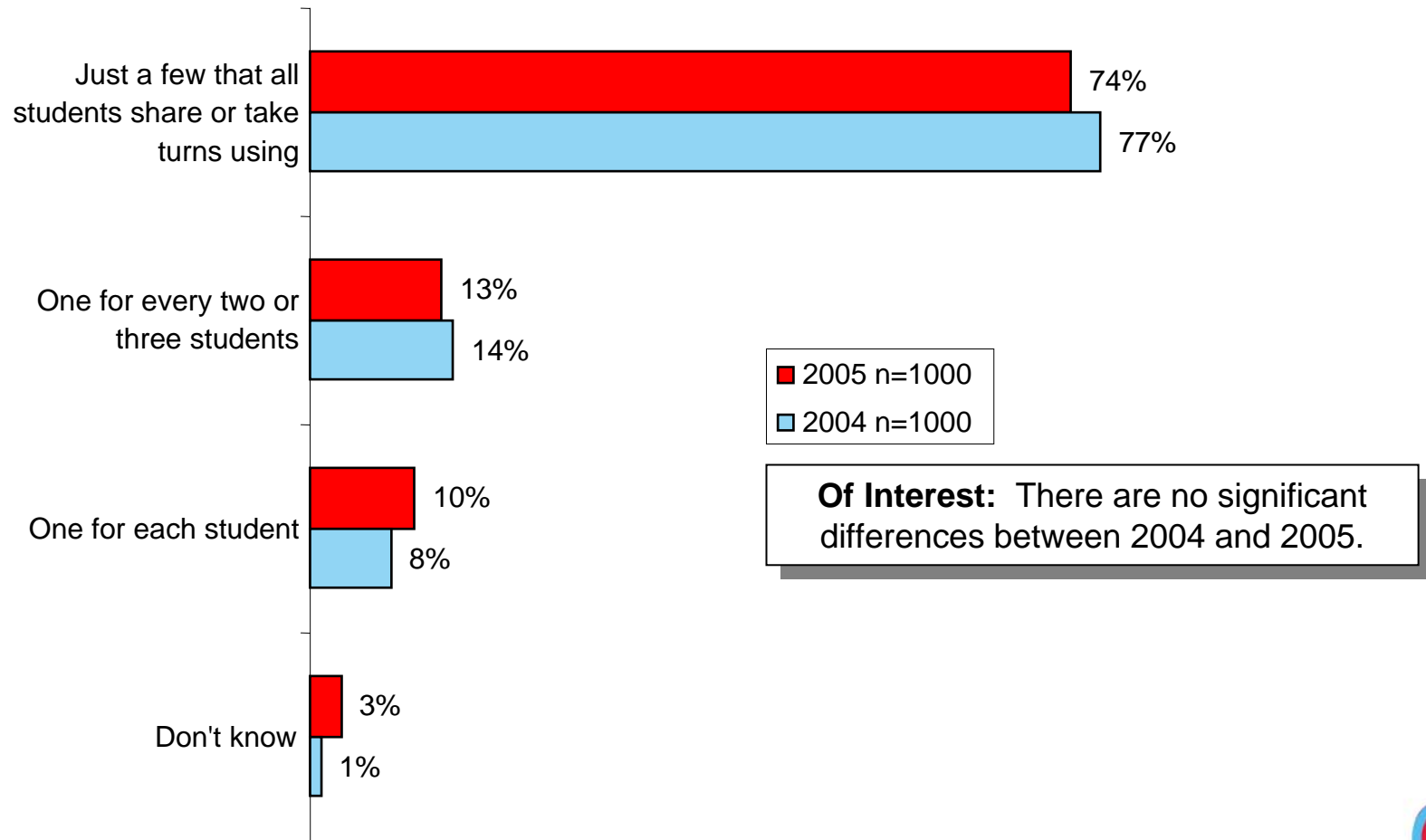
33.9% Have little-to-no training in assessment software

Q) Rate the adequacy of your training in the following areas:



# Technology as a Teaching Tool

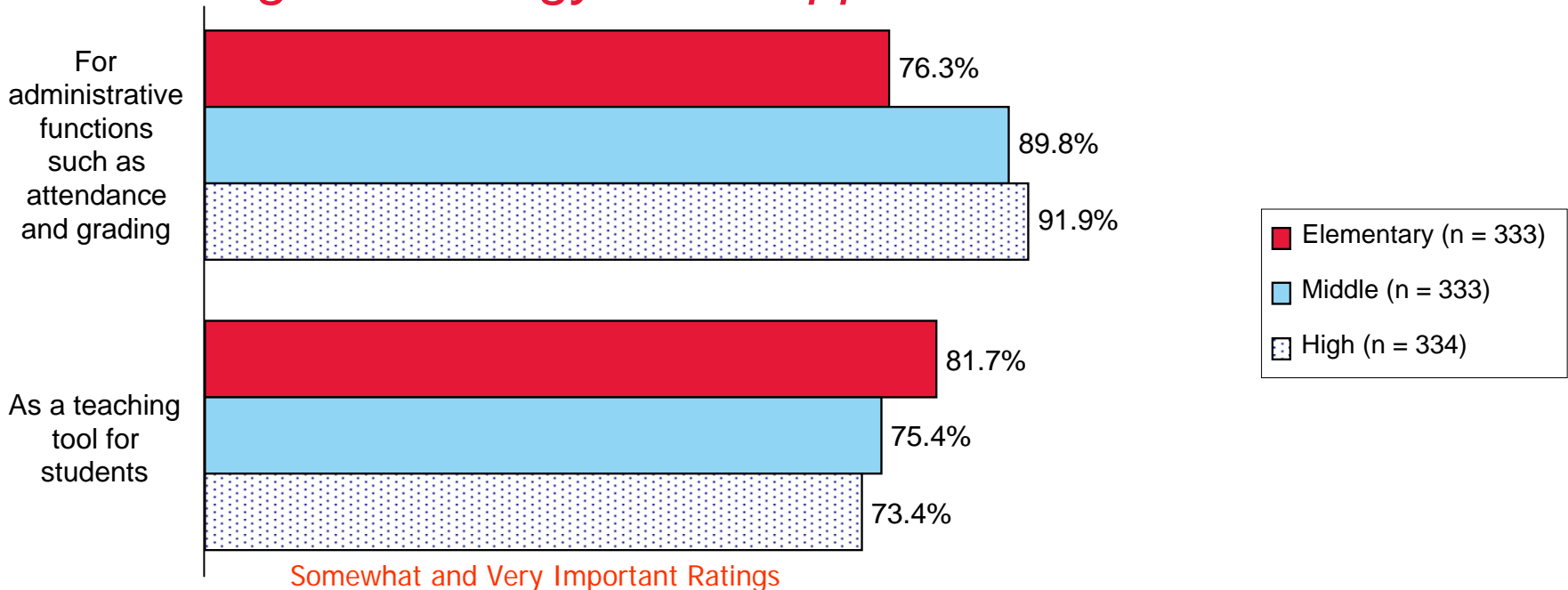
*No Increase in Computers in the Classroom for 2005*



Q) Altogether, about how many computers are available in your classroom for student use at least some of the time?

# Computers as Teaching Tools

## *Driving Technology as an Approach to Instruction*



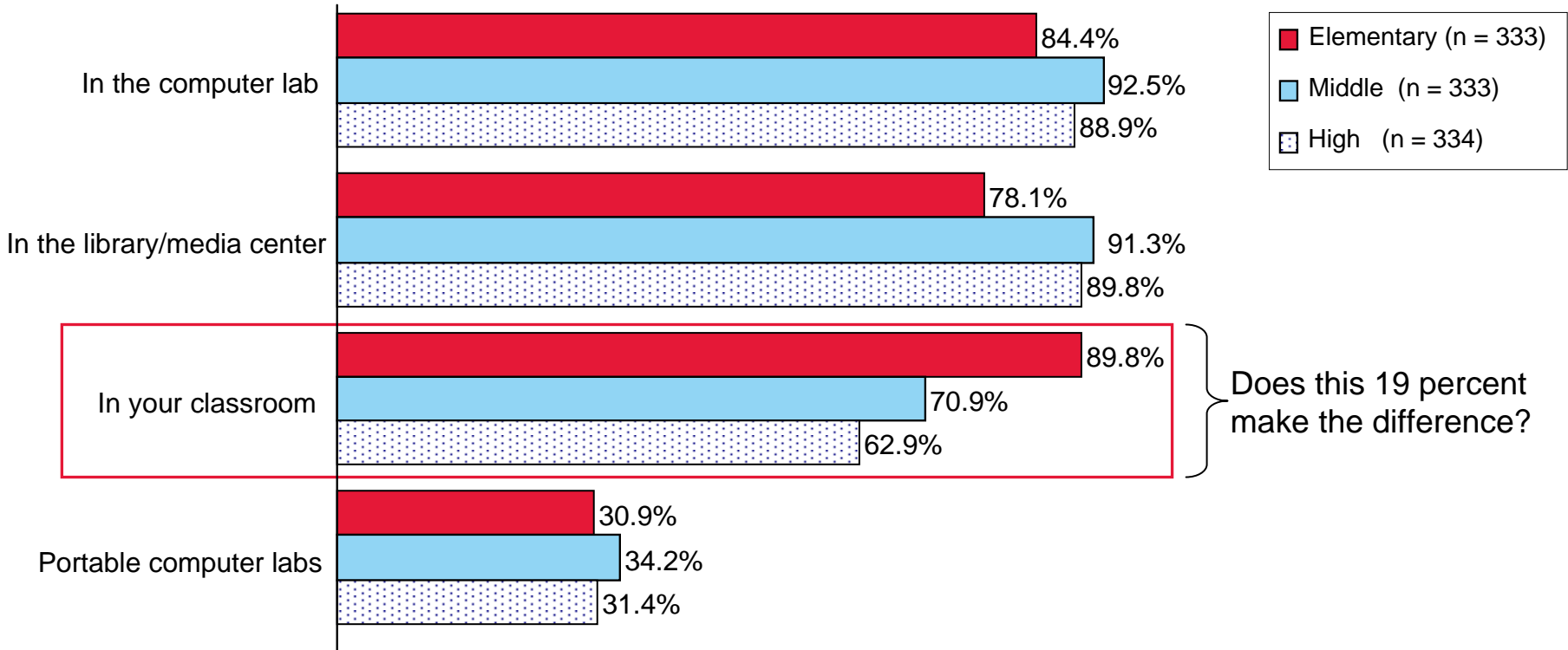
- Middle school (89.8%) and high school (91.9%) teachers are significantly more likely to rate computers as somewhat or very important for administrative functions, such as attendance and grading, than elementary school teachers (76.3%).
- On the other hand, elementary school teachers (81.7%) are significantly more likely to rate computers as teaching tools somewhat or very important for students compared to middle school (75.4%) and high school teachers (73.4%).

Q) Rate the importance of computer technology for you personally in each of the following teacher-related functions:



# Computers as Teaching Tools

## *Tools for Teachers vs. Tools for Teaching*

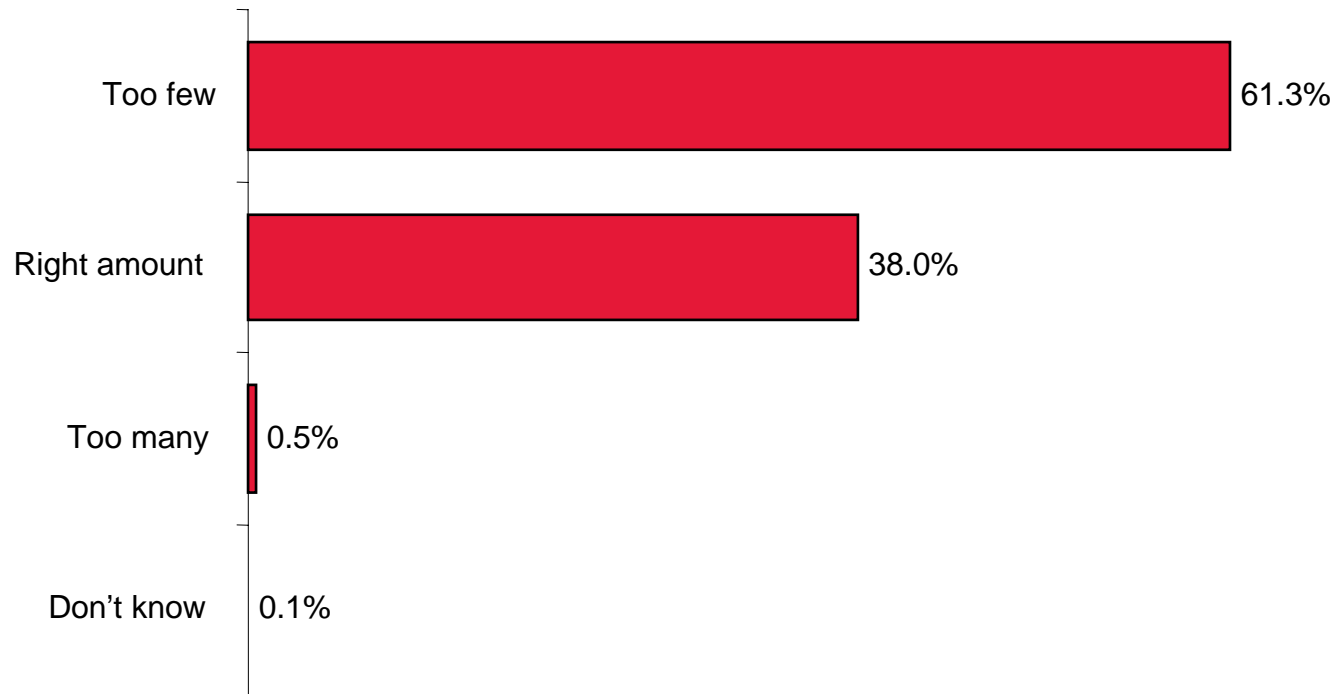


- Elementary schools (89.8%) are significantly more likely to have access to computers for students in their classroom compared to high schools (62.9%) and middle schools (70.9%).
- Conversely, high schools (89.8%) and middle schools (91.3%) are significantly more likely to have access in their library or media center compared to elementary schools (78.1%).

Q) Where do your students have access to computers in your school? List all that apply.

# Technology as a Teaching Tool

*Teachers Think That Too Few Computers are Available in the Classroom*

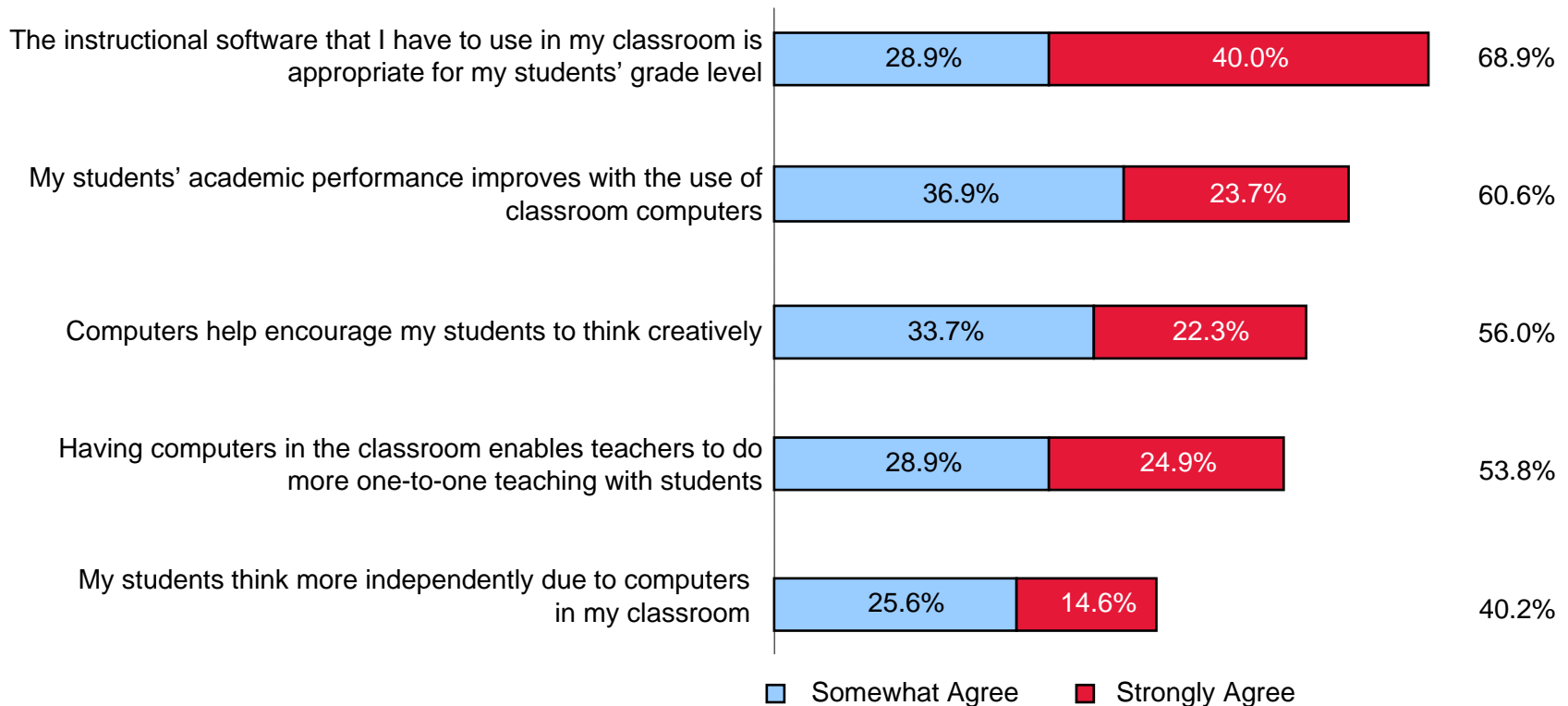


Q) Do you think the number of computers in your classroom is \_\_\_\_\_?



# Technology as a Teaching Tool

*Teachers Perceive the Value of Technology as a Teaching Tool*



Q) Identify some issues that may affect the best use of computer technology as a teaching tool in the classroom.

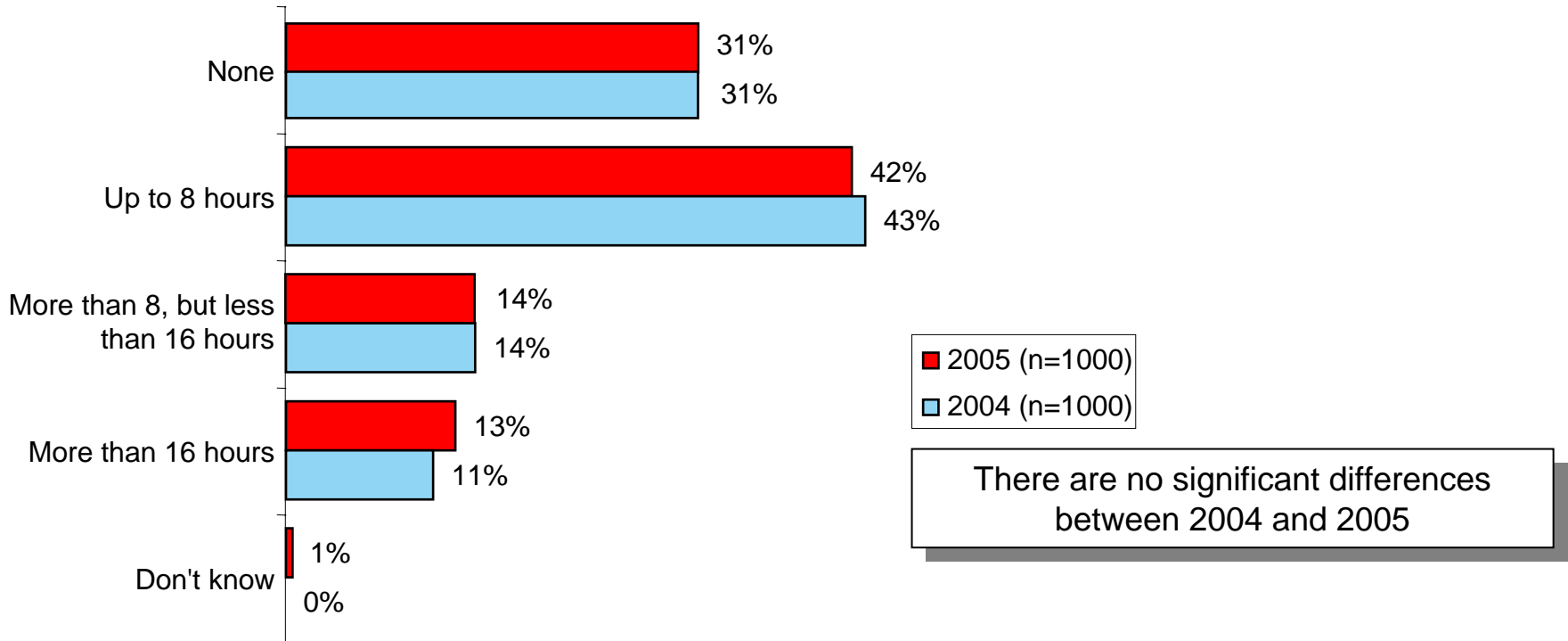


# Additional Findings for 2005

- **Finding #1:** No increase in technology professional development for 2005.
- **Finding #2:** Teachers perceive strong support for technology in schools.
- **Finding #3:** Schools are leveraging student expertise in formal and informal technician programs.
- **Finding #4:** Over half of teachers support 1:1 computing.

# Additional Findings for 2005

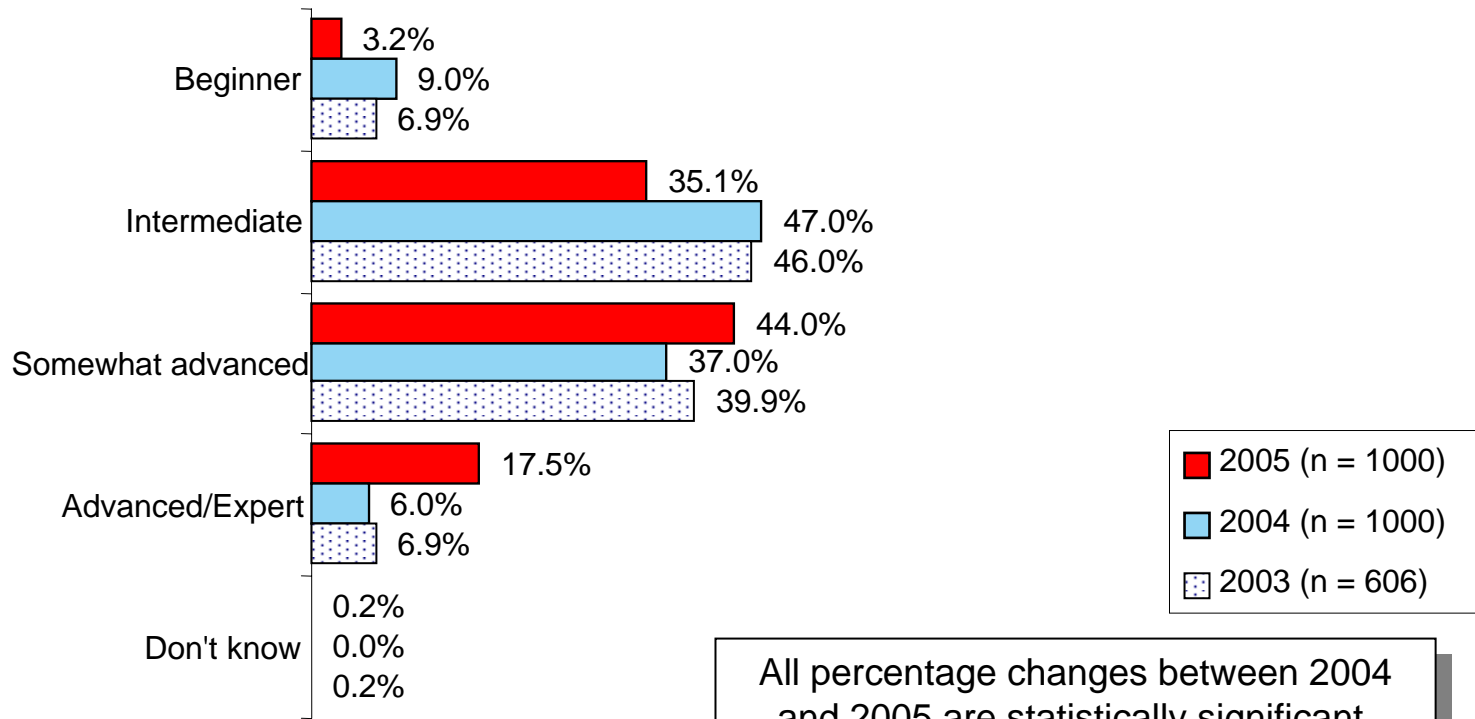
## #1: No Increases in Technology Professional Development



Q) Over the past 12 months, how many hours of training have you received in computer use and related software that has been paid for by your school or school system?

# Additional Findings for 2005

## #1: Professional Development Has Had a Positive Impact

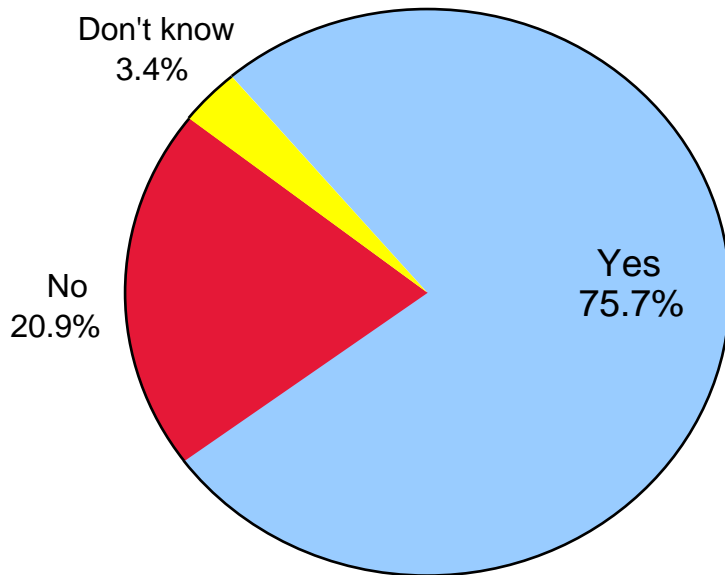


Q. How would you describe your skill set with computers and software applications?

# Additional Findings for 2005

## #2: Strong Support Perceived for Technology in Schools

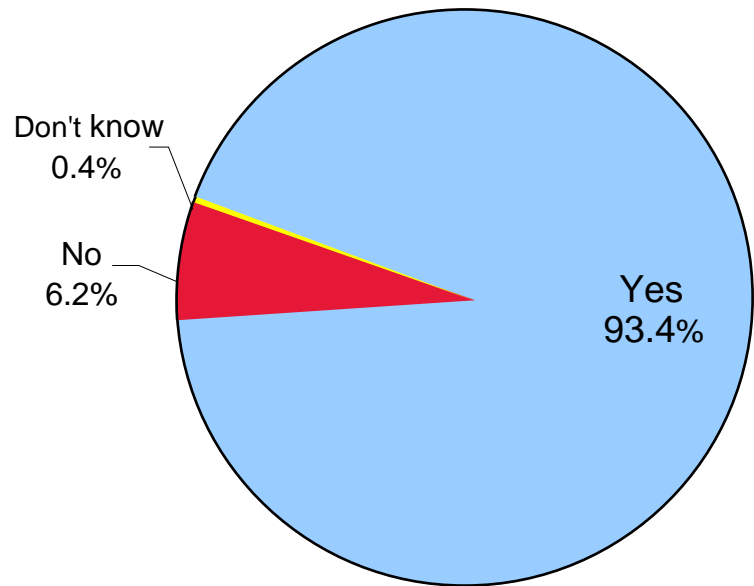
### State-level Support for Technology



- Over three-quarters of respondents (75.7%) believe that their state's government support the use of technology in schools.

*Q) Do you think your state government supports the use of technology in schools?*

### Administration Support for Technology



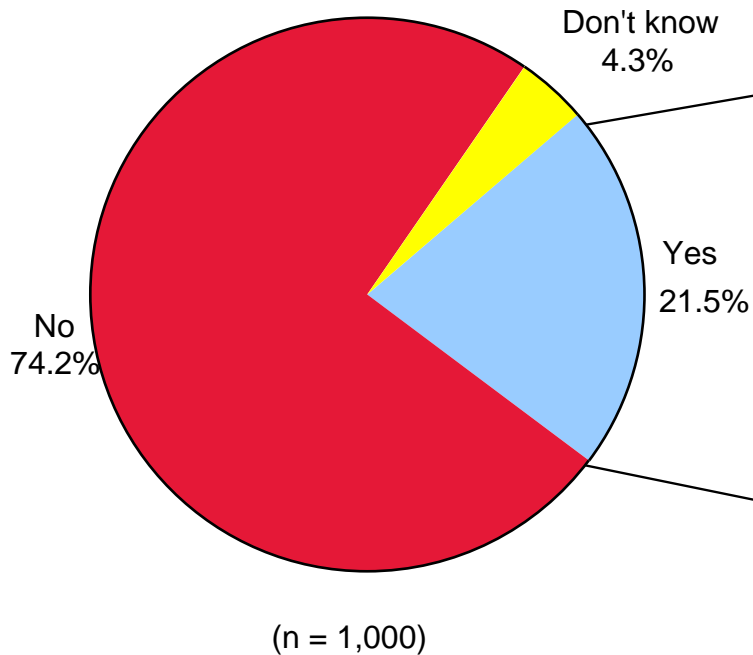
- Almost all teachers (93.4%) believe that their school's administration supports the use of technology in schools.

*Q) Does your school's administration support the use of technology in the classroom?*

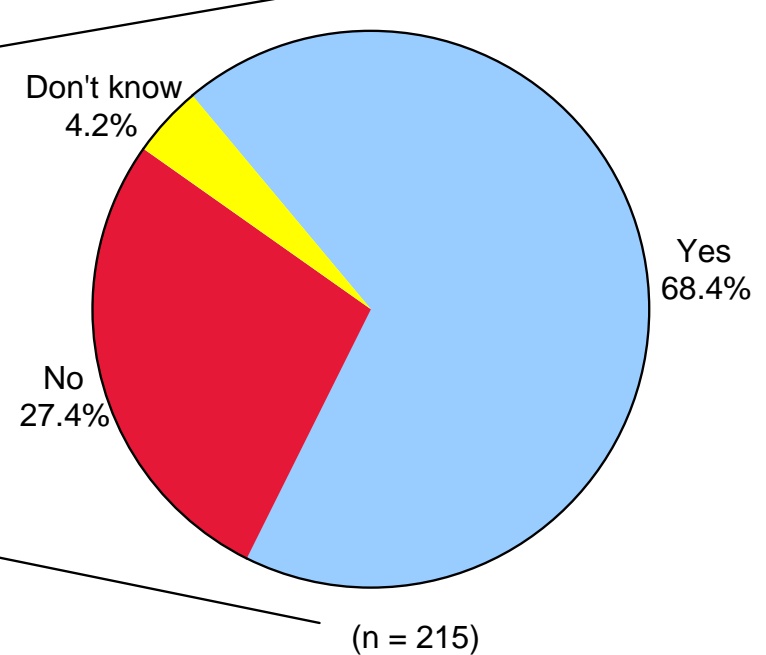
# Additional Findings for 2005

## #3: Schools Are Leveraging Student Expertise

**Use Students as IT Technicians**



**Part of Formal Program**

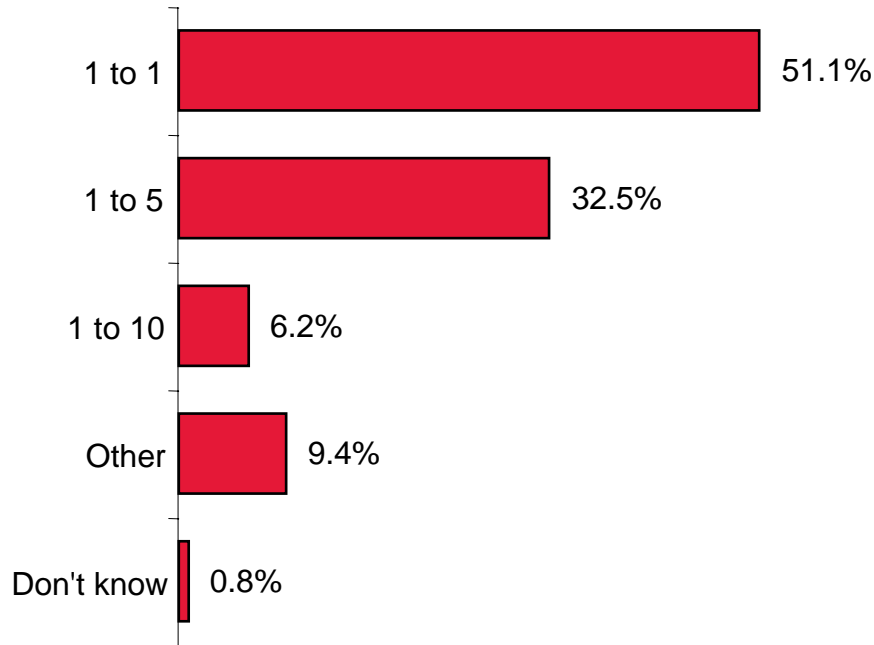


- Almost a quarter (21.5%) of the respondents use students as IT technicians in their classrooms.
  - Of those respondents who do use students as IT technicians, over two-thirds (68.4%) say this is part of a formal program.

Q) Does your school currently use students as IT technicians? Is this part of a formal program where the students have received training?

# Additional Findings for 2005

## #4: *Approximately Half of Teachers Support 1:1 Computing*



- Over half of teachers (51.1%) say that the ideal ratio of students to computers is one to one.
- Almost a third of teachers (32.5%) cite a ratio of one computer for every five students as ideal.

Q) Overall, what do you feel is the best ratio of students per computer

# Methodology

- QED conducted telephone interviews between February 28, 2005 and March 29, 2005 with K-12 teachers.
- A total of 1,000 K-12 public school teachers completed the survey.
- The random sample was drawn from QED's National Education Database (NED) of K-12 schools, which is a census of all schools and districts in the United States.
- A sample size of 1,000 respondents equates to a +/- 3% precision at a 95% confidence level.

# Sample Frame

- Grade Level
  - 33.3% of respondents in elementary schools
  - 33.3% of respondents in middle schools
  - 33.4% of respondents in high schools
- Region
  - 17.1% of respondents in the Northeast
  - 31.6% of respondents in the South
  - 27.6% of respondents in the Midwest
  - 23.7% of respondents in the West
- Metropolitan settings
  - 20.7% of respondents in Urban areas
  - 46.2% of respondents in Suburban areas
  - 33.1% of respondents in Rural areas
- Schools' student enrollment numbers
  - 24.4% of respondents in schools with enrollment 299 and less
  - 26.4% of respondents in schools with enrollment 300-499
  - 24.5% of respondents in schools with enrollment 500-749
  - 24.7% of respondents in schools with enrollment 750 and more
- Title I students
  - 51.2% of respondents from schools with 34% or less Title I students
  - 48.8% of respondents from schools with 35% or more Title I students

# Respondent Demographics

- Subjects Taught (multiple responses allowed)
  - 58.5% of respondents teach Reading, English or Language Arts
  - 48.0% of respondents teach Math
  - 42.9% of respondents teach Social Studies or History
  - 39.9% of respondents teach Science
  - 10.6% of respondents teach Computers
  - 6.5% of respondents teach Physical Education/Health
  - 4.1% of respondents teach Music or Fine Arts
  - 2.5% of respondents teach Speech
  - 2.4% of respondents teach Foreign Languages
  - 1.2% of respondents teach Vocational Education
  - 2.0% of respondents teach other subjects
- Number of Students Taught
  - 8.3% of respondents teach 1 to 15 students on a daily basis
  - 50.2% of respondents teach 16 to 25 students on a daily basis
  - 22.9% of respondents teach 26 to 40 students on a daily basis
  - 18.2% of respondents teach more than 41 students on a daily basis

# Respondent Demographics

- Years Teaching
  - 1.2% of respondents have taught less than one year
  - 12.9% of respondents have taught more than 1 year but less than 5 years
  - 20.1% of respondents have taught more than 5 years but less than 10 years
  - 12.9% of respondents have taught more than 10 years but less than 15 years
  - 16.5% of respondents have taught more than 15 years but less than 20 years
  - 34.1% of respondents have taught more than 20 years
- Gender
  - 70% of respondents were female
  - 30% of respondents were male

Thank You

