

**RISING TO THE CHALLENGE:  
ARE HIGH SCHOOL GRADUATES PREPARED  
FOR COLLEGE AND WORK?**

**A STUDY OF RECENT HIGH SCHOOL GRADUATES, COLLEGE  
INSTRUCTORS, AND EMPLOYERS**

**FEBRUARY 2005**

**CONDUCTED FOR:**



**Peter D. Hart Research Associates/Public Opinion Strategies  
1724 Connecticut Avenue, NW  
Washington, DC 20009**

*From December 4 to 21, 2004, Peter D. Hart Research Associates and Public Opinion Strategies interviewed 1,487 public high school graduates from the classes of 2002, 2003, and 2004. The total sample comprised 861 students currently enrolled in two- and four-year colleges and 626 high school graduates not currently enrolled in college, including 267 who had been enrolled in college but have withdrawn. The total sample includes oversamples for a total of 303 African Americans, 287 Hispanics, and 353 current college students who have taken a remedial course. The margin of error among all high school graduates is  $\pm 2.9\%$ , and is higher among the subgroups of all students ( $\pm 3.8\%$ ), non-students ( $\pm 4.37\%$ ), four-year college students ( $\pm 5.03\%$ ), two-year students ( $\pm 5.14\%$ ), non-students with no college ( $\pm 5.21\%$ ), and non-students with some college ( $\pm 6.13\%$ ).*

*From December 10 to 16, 2004, we also interviewed 400 employers who make personnel decisions, including owners, CEOs, presidents, and human resources professionals. The margin of error for this survey is  $\pm 4.9\%$ . From December 13, 2004, to January 5, 2005, we interviewed 300 instructors who teach first-year students at two- and four-year colleges. The margin of error among all instructors is  $\pm 5.6\%$ .*

## **Recent High School Graduates and their College Instructors and Employers Call for More Rigorous Courses and Higher Expectations in High School**

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### **EXECUTIVE SUMMARY**

Although public high schools are doing a good job preparing many graduates, they are seriously failing a substantial minority. As many as two in five recent high school graduates say that there are gaps between the education they received in high school and the overall skills, abilities, and work habits that are expected of them today in college and in the work force. The vast majority of college students and high school graduates without a college degree say that they have gaps in preparation in at least one crucial subject or skill that they will face. College instructors and employers confirm graduates' assessments in even harsher terms, as they estimate that similar numbers of graduates are inadequately prepared to meet their expectations. College instructors are especially critical and are unsatisfied with the job that high schools are doing in preparing students in writing and mathematics. Instructors report that they spend a significant amount of time teaching material that they feel should have been learned in high school.

Knowing what they know now about the expectations of college and the work force, the majority of high school graduates would have applied themselves more in high school and chosen to take more difficult classes. Yet, fewer than one-quarter of high school graduates feel that they were significantly challenged and faced high expectations in order to graduate from high school. Those graduates who did face high expectations are much more likely to feel adequately prepared for college or the work force. High school graduates welcome raised standards of achievement. An overwhelming majority of graduates say that they would have worked harder if their high school demanded more of them and set higher academic standards. High school graduates, employers, and instructors support a broad reform agenda, including strongly

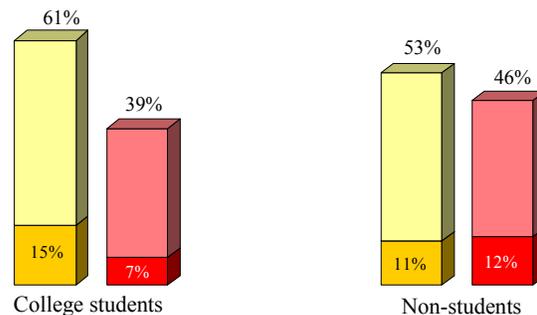
supporting measures that would raise the expectations for high school students, test them more rigorously, and require them to take more challenging courses.

**Many high school graduates are not prepared for college or entry-level jobs.** A substantial number of recent public high school graduates feel that gaps exist between their high school education and the skills, abilities, and work habits that are expected of them today. Whether graduates are in college or the work force, they are equally likely to feel prepared for everything they will face. A 61% majority of current college students feel that they generally were prepared to do the college work that is expected of them, but nearly two in five (39%) say that there are gaps in how high school prepared them for the expectations of college. Students at two-year colleges are only slightly more likely to say that they have gaps in their preparation (41%) than are students at four-year colleges (37%), whereas a majority of self-identified part-time students (53%) have gaps in preparation for the skills and abilities expected of them.

A similar proportion (60%) of high school graduates who have gone into the work force without getting a college degree say that they are prepared for what is expected of them in their current job, but 39% say that there are gaps in their preparation for what is expected of them in their current job. An even larger proportion (46%) say that there are gaps in preparation for the skills and abilities that they believe they would need for the jobs they hope to get in the future. Among those high school graduates who are not in college and not currently employed, nearly half (49%) say that they have gaps in preparation for the skills and abilities necessary for the types of job that they hope to get.

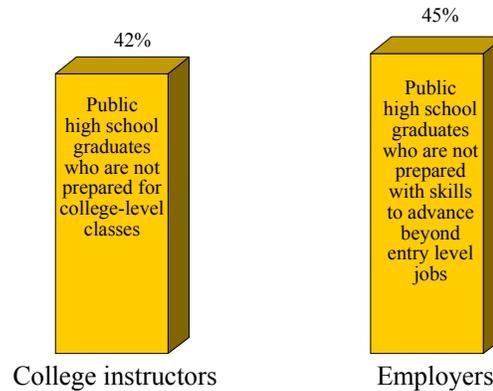
## Many Grads Cite Gaps In Preparation

*How well did your high school education prepare you for college-level work/jobs you hope to get in the future?*



## College Instructors/Employers Confirm Grads' Lack Of Preparation

*Average estimated proportions of recent high school graduates who are not prepared*



### College students have gaps in preparation for academic expectations.

Asked to evaluate their own level of preparation for college on six separate dimensions, only 14% of college students feel that they are generally able to do what is expected of them in all six dimensions. Fifty-one percent feel that there are some gaps, but no large ones, in their preparation, and an additional 35% identify large gaps in at least one area. Significant proportions of students do not say that they are generally able to do what is expected of them in every category of academic preparation, including:

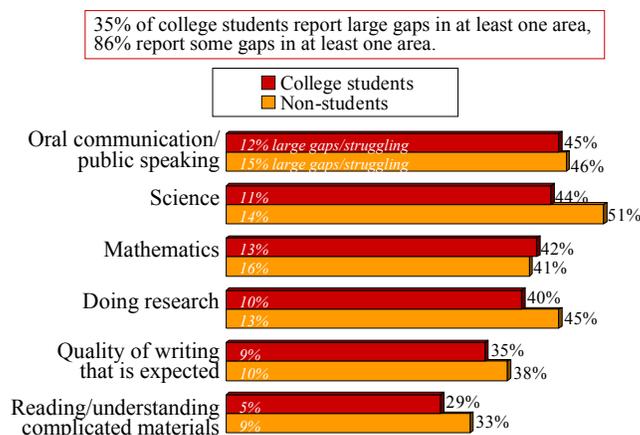
- 45% identify some gaps in their oral communication skills (12% large gaps).
- 44% say that there are some gaps in their science preparation (11% large gaps).
- 42% feel that there are some gaps in their mathematics preparation (13% large gaps).
- 40% notice some gaps in their ability to do research (10% large gaps).
- 35% say that there are some gaps in the quality of writing that is expected (9% large gaps).

In addition, well over half (56%) of all college students say that high school left them unprepared for the work and study habits expected in college. When asked to choose which one or two areas that they most wish high school had done a better job in preparing them, students in four-year colleges are most likely to say work and study habits (25%), whereas students in two-year colleges say mathematics (30%).

The real-world experiences even of those who consider themselves well prepared also indicates important shortcomings in their high school preparation. Most notably, even among those who believe that they were extremely or well prepared for college level work, three in ten (31%) took at least one remedial course in college. In comparison, among those who say that they had gaps in their preparation, nearly half (46%) took at least one remedial course.

## Most Grads Cite Gaps In At Least One Skill

(In each area, % saying there are at least some gaps in their preparation)



**Non-students have gaps in job skills.** Non-college students' self-assessments are nearly identical to college students' self-assessments—not only do the same proportion have gaps, they identify the same subjects and skills in roughly equal numbers. Only 14% of high school graduates in the work force are confident that they are generally able to do what is expected in all six dimensions, 47% recognize that there are some but no large gaps in their preparation, and an additional 39% say that there are large gaps in at least one area.

- 51% feel that there are some gaps in their science preparation (14% large gaps).
- 46% say that there are gaps in their oral communication skills (15% large gaps).
- 45% identify some gaps in their ability to do research (13% say there are large gaps).
- 41% say that there are some gaps in their mathematics preparation (16% large gaps).
- 38% feel that there are some gaps in the quality of writing that is expected (10% large gaps).

Nearly half (49%) of all non-students say that high school left them unprepared for the work habits expected in the work force. Additionally, 45% of non-students say that they have gaps in the computer skills expected of them. When asked which one or two subjects they most wish schools had done a better job preparing them, non-students are most likely to choose mathematics (22%).

High school graduates who are not in college overwhelmingly believe that they will need more education. More than four in five (84%) of graduates not currently in college believe that they will need more formal education or training to achieve what they hope for in life. More than half (52%) say that they plan to attend college within the next year, and another 26% plan to take classes sometime further down the road.

**Real world experiences of those who withdrew from college also show gaps in preparation.**

Nearly half (48%) of students who recently left college say that they had gaps in their preparation for their college courses when they were taking them. The group that leaves college before graduating gives many reasons for leaving school. Over one-third (35%) of those who withdraw from college identify the challenge of the academic work as a reason they left school.

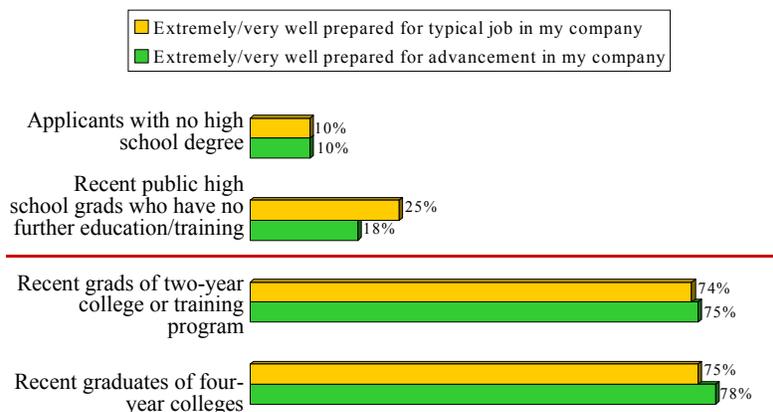
**Employers agree that high school education leaves a large proportion of students unprepared.**

Employers estimate that 39% of recent high school graduates with no further education are unprepared for the expectations that they face in entry-level jobs, which is identical to the proportion of non-college students who say that they have gaps in their preparation. Employers estimate that an even larger proportion (45%) are not adequately prepared for the skills and abilities they need to advance beyond entry level. The employers estimate that large segments are unprepared in specific skills and subjects. They again confirm the students self-assessments in harsher terms, by estimating that 46% of high school graduates who apply at their company are inadequately prepared for the work habits they will need on the job, 40% are inadequately prepared in math, and 38% are inadequately prepared for the quality of writing that is expected.

When employers are asked a different question about their satisfaction with the job that high schools are doing preparing graduates for a number of skills needed in the work force, large proportions of employers say that they are dissatisfied with graduates' ability to read and understand complicated materials (41% of employers are dissatisfied), to think analytically (42%), to apply what they learn to solve real-world problems (39%), and with their oral communications skills (34%). While 72% of employers say that they are satisfied with the overall job that high schools are doing in preparing graduates for the work world, they predominantly describe themselves as 'somewhat satisfied' (14% very satisfied, 58% somewhat satisfied).

Employers also are three times more likely to say that most recent high school graduates with no further education lacked key skills than they are to say the same of recent four-year or even two-year college graduates. A quarter (25%) of employers say that most recent graduates are extremely or well prepared for typical jobs in their company, compared to 75% who say most graduates of four year colleges are well-prepared and 74% who say that most graduates of two year colleges are well prepared. Even fewer (18%) employers say that most recent high school graduates with no further education are prepared for advancement in their company, which is only eight percentage points more than say the same thing about applicants who do not even have a high school diploma.

## Few Employers Feel High School Graduates Prepared For Advancement



The employer survey findings provide evidence that there are limited opportunities for high school graduates who do not get a college degree. Only one in five (19%) employers say that high school graduates with no further education represent a large proportion of the employees they hire. Another two in five (38%) employers say that they hire a moderate proportion of high school graduates. The most common types of jobs that employers hire recent high school graduates with no further education include labor, construction, and skilled trades (38%) and services, including food service, personal services, and cashiers (34%).

Those employers who do hire a small number or no recent high school graduates give a number of reasons for their reluctance, including that there are available applicants with a college degree who are more qualified (30%), most jobs at their company require an advanced degree (29%), and recent high school graduates lack the skills and work habits to succeed (28%).

Only three in ten employers say that most high school graduates at their company are on a path with room for career advancement to higher levels of the company. Nearly as many employers (28%) say that most high school graduates at their company are not on a path with room for career advancement. Even among those employers who hire a large proportion of high school graduates with no further education, 30% feel that most high school graduates are on a path with room for advancement to higher levels.

**College instructors are the harshest critics of public high schools.** Only 18% of college professors feel that most of their students come to college extremely or very well prepared, with just 3% saying extremely well. Fifty-six percent (56%) describe their students as somewhat well prepared, and 25% say that they are not too well or not well prepared at all. College instructors at two-year institutions offer even harsher assessments, as only 7% say that most of their students come to college extremely or very well prepared, compared with 22% of instructors at four-year colleges. Even at colleges with competitive admission policies that only let in high-

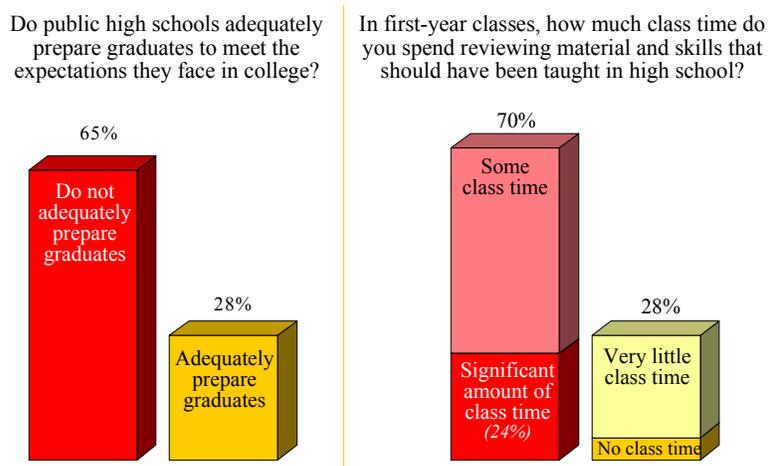
performing students, only 30% of instructors say that most of their students come to college well prepared.

College instructors estimate that 42% of high school graduates are not adequately prepared by their high school education for the expectations of college classes and are struggling or having to take remedial courses to catch up. Instructors at two-year colleges estimate that nearly half (49%) of students are inadequately prepared, while instructors at four-year colleges are only slightly more optimistic, with those instructors saying that 39% of the students at their college are not adequately prepared.

College instructors estimate that half (50%) of the students at their school are not adequately prepared to do college-level math. They estimate the same proportion (50%) is not adequately prepared for college-level writing.

Forty-eight percent (48%) are dissatisfied with the job that American public high schools are doing in preparing students for college, and in response to a different question, just 28% believe that public high schools as a whole are adequately preparing graduates for the expectations they will face in college.

## College Instructors Are Harshest Critics Of High School



Large majorities of instructors are dissatisfied with the job public schools are doing in preparing students for college when it comes to writing quality (62%) and their ability to read and comprehend complex materials (70%). Majorities of instructors are dissatisfied with their students' preparation in a number of other areas, including their ability to think analytically (66%), their work and study habits (65%), their ability to do research (59%), applying what they learn to solve problems (55%), and mathematics (52%). Those who are most familiar with their abilities are even more disappointed: three in five (60%) instructors who teach math, science, or engineering are dissatisfied with the students preparation in math, while nearly seven in ten (69%) humanities and social science professors are dissatisfied with the quality of students'

writing. When asked to choose one or two areas that they most wish high schools would do a better job, college instructors are most likely to say preparing students for the writing quality that is expected (37%) or mathematics (34%).

Seven in ten (70%) instructors spend at least some or a significant amount of class time reviewing material and addressing skills that they think should have been taught in high school, including a quarter (24%) who say that they spend a significant amount of class time. Instructors at both four-year (68% of whom spend some or significant time) and two-year colleges (75%) are reviewing material that should have been taught in high school.

**The quality of preparation that students receive in high school is closely associated with high expectations and solid academic standards.** One-quarter (24%) of all high school graduates, including 26% of all current college students and 20% of non-college students, say that they faced high academic expectations and that they were significantly challenged in high school. More than half (56%) of all high school graduates faced moderate expectations, whereas one in five (20%) found that expectations were low and that it was easy to slide by. Graduates from all backgrounds assessed the rigor of their high school fairly similarly, with 23% of those from families with below-average incomes and 24% of those from families with above-average incomes saying that expectations were high in high school. Graduates from suburban high schools (31%) are slightly more likely to say that the expectations they faced in high school were high than are those from cities (23%) or small town/rural areas (20%). A surprisingly low 30% of those in college preparatory programs think that they were significantly challenged in high school and only 17% of students in a general studies course of study in high school say the same about their high school.

However, students who faced high expectations in high school are much more likely to feel well prepared for the expectations of college (80%) than are college students who faced moderate (58%) or low expectations (37%). Additionally, those students who faced high expectations in high school are nearly twice as likely to be getting mostly A's in college (28%) than are those who faced low expectations in high school (13%). Students who faced high expectations are much less likely to take remedial classes in college (27% have taken a remedial class) than are those who faced low expectations in high school, 50% of whom have taken a remedial class.

Similar proportions of non-students who faced high expectations in high school feel that they are well prepared for the expectations of the work force (72%), whereas only 36% of those who faced low expectations say the same. Among high school graduates in the work force, those who faced low expectations in high school are 14 percentage points more likely to say that they are not on a path to get the kind of job they hope to have in five to ten years than are students who faced high expectations (42% versus 28%).

## Grads Who Faced High Expectations Twice As Likely To Feel Prepared

*(% saying they were extremely/very well prepared for college/future job)*

College students whose high schools held them to:

High expectations 80%

Moderate expectations 58%

Low expectations 37%

Non-students whose high schools held them to:

High expectations 72%

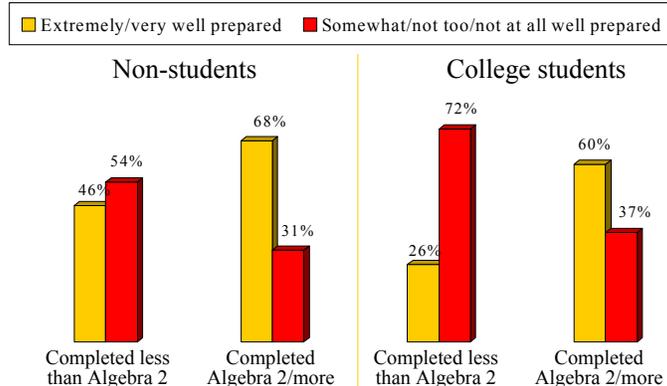
Moderate expectations 53%

Low expectations 36%

The number and difficulty of core classes taken in high school is strongly associated with how prepared high school graduates feel today. College students who took Algebra Two or higher level math courses in high school are more than twice as likely to feel prepared for the math they are expected to do in college (60% feel well prepared) than students who did not take Algebra Two (26%). Non-students who took Algebra Two or higher are even more likely to say they are prepared for the math they will face at work, as 68% of those who took Algebra Two or higher feel prepared for the math they are expected to do at work, compared with 46% of those who did not take Algebra Two.

## Algebra II Critical For Work World And College

*When it comes to mathematics, how well were you prepared in high school for the expectations you face in college/working world?*



Fewer than half (46%) of all graduates were asked to do a great deal of writing in high school. College students who were expected to write a great deal in high school, including longer assignments such as term papers or research reports, feel much more prepared for the quality of writing expected of them in college (79% feel well prepared) than do students who faced lower expectations for their quantity of writing (51%). Although 75% of non-students who did a great deal of writing in high school feel well prepared for the quality of writing expected in the work force, fewer than half (47%) who were expected to write less in high school feel prepared for the quality of writing expected.

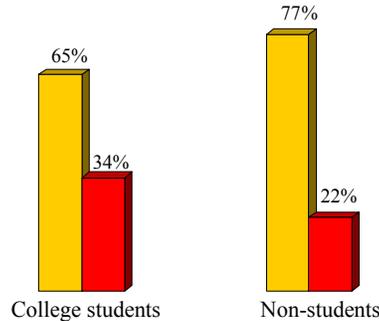
**Beyond the decision to go to college, demographics have less impact.** When looking at the college students and non-students separately, the survey results reveal surprisingly small differences in preparation within the demographic groups of income, race, and area. However, demographic variations in rates of college attendance must be kept in mind. Family income has a muted effect on assessments of preparation in college, as college students who say that their family income is below average are nine percentage points more likely to identify gaps in their preparation than are college students who cite an above-average family income (43% versus 34%). The differences are greater among non-students, with non-students from families with below-average incomes 14 points more likely to say that they have gaps in preparation than those from families with above-average incomes (55% versus 41%). African-American (40% report gaps in their preparation) and Hispanic (43%) college students assess their preparation similarly to the national average. A smaller proportion (34%) of African-American non-students identify preparation gaps. Hispanics are more likely to report gaps in preparation for the work force (47%). Suburban college students (33%) are only slightly less likely than are college students from cities (40%) or small town/rural areas (41%) to say that they have gaps in their preparation. The ratings are fairly consistent across these areas for non-college students, as 46% of graduates from cities, 52% of graduates from suburbs, and 44% of graduates from small town/rural areas notice gaps in their preparation. The lack of findings on these demographic variables may simply be explained by noting that this is a comparison among college students and among non-college students. It is important to keep in mind, however, that national statistics show large differences in both high school drop-out rates and college-matriculation rates by factors such as income and ethnicity.

**Knowing what they know now, high school graduates would have worked harder and chosen a more rigorous curriculum.** Based on what they know now about the expectations of college and the work force, a majority of high school graduates, including 65% of college students and 77% of non-college students, now say that they would have worked harder and applied themselves more in high school, even if it had meant less time for other activities. Those who feel they have gaps in preparation for college (70%) and those who have taken a remedial class (74%) are more likely to say that they would have worked harder and applied themselves more. College students at two-year colleges (76%) are 16 points more likely than students at four-year colleges (60%) to say that they would have worked harder.

## Knowing What They Know Today, Grads Would Have Worked Harder

■ Would have applied myself more ■ Would have applied myself the same/less

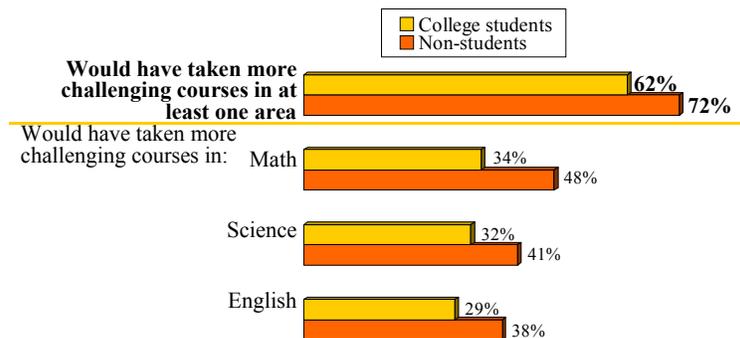
Knowing what you do today about the expectations of college/the work world, if you were able to do high school over again, would you have worked harder and applied yourself more to your coursework even if it meant less time for other activities?



A majority (62%) of college students would have taken at least one harder course in high school, including more challenging math courses (34%), more challenging science courses (32%), and more challenging English courses (29%). Non-college students are even more likely to say that they would have taken harder classes. Seven in ten (72%) would have taken at least one harder course, including more challenging math courses (48%), more challenging science courses (41%), and more challenging English courses (38%).

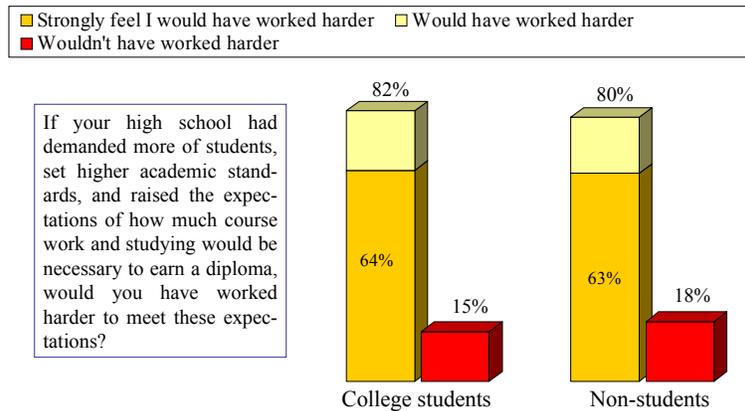
## Majorities of Graduates Would Have Taken Harder Courses

Knowing what you know today about the expectations of college/the work world, if you were able to do high school over again, when it comes to math/sciences/English would you have taken higher-level and more challenging courses if they were available?



Furthermore, if high schools raised standards, graduates say they would be able to meet them. Four in five college students (82%) and non-students (80%) say that that they would have worked harder if their high schools had demanded more of students, set higher academic standards, and raised expectations of how much course work and studying would be necessary to earn a diploma. Furthermore, the majority (62%) of graduates say that they were motivated and inspired to work hard in high school.

## Had High School Demanded More, Grads Would Have Worked Harder



**Higher standards, tougher courses, and more evaluations are strongly supported.** Recent high school graduates, college instructors, and employers all strongly support measures that would raise the expectations for high school students, test them more rigorously, and require them to take more challenging courses.

More than 70% of graduates support all the remedies proposed to better prepare them for life after high school, and at least three in four employers and college instructors feel that each proposal would improve things a great deal or somewhat.

- More than nine in ten (94%) college students believe that providing opportunities to take more challenging courses such as honors, AP, or IB classes would improve their preparation for life after graduation, including 75% who say that this would improve things a great deal. College instructors strongly agree (85% would improve things, 46% would improve things a great deal).
- Ninety-seven percent of non-college students say that providing opportunities for real-world learning and making coursework more relevant would improve things, including 76% who say that this would improve things a great deal. More than nine in ten (95%) employers agree, including 49% who say this would improve things a great deal.
- Strong majorities of high school graduates support several remedies that would increase their workload, including 81% who say that requiring students to pass

- exams to graduate from high school would improve things, and 74% who say that requiring all students to take four years of math and courses in science to graduate would improve things.
- College instructors and employers agree that requiring an exit exam (79%, 89% respectively) and a harder curriculum (81%, 83%) would improve things.
  - More than nine in ten (94%) employers say that giving students college placement tests when they are juniors to find out whether they are ready for college-level work or what else they need to learn to be ready would improve things, including 45% who believe that this would improve things a great deal. Eighty-five percent of college instructors agree.
  - Ninety percent of college instructors feel that having teachers or guidance counselors who give students advice starting early in high school about what courses to take to prepare for college and for the careers they want would improve things, including 49% who believe that this would improve things a great deal.

## CONCLUSION

While most high school graduates say that they are well prepared for what they face today, substantial proportions of high school graduates identify gaps in preparation for the skills and abilities expected of them today and employers and college instructors offer more critical assessments. Few graduates face high expectations in high school, and those who do are far more likely to feel prepared for what they face today. The survey also provides ample evidence that graduates support higher standards and tougher requirements for high school graduation. To those who would expect students to resist changes that would force them to work harder, these recent high school graduates say just the opposite. Like their college instructors and employers, these recent high school graduates say higher expectations in high school and tougher course requirements and tests prior to graduation would leave them better prepared for the real challenges they are now facing in college and the work world.