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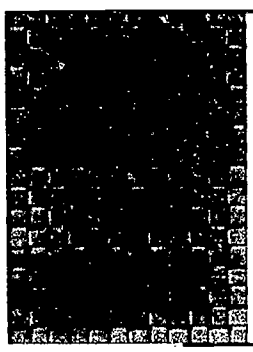
ABSTRACT

This guide is the third in a series of guidelines designed to be a framework for positive action at the school site and in the classroom through the High Schools That Work program, an effort to raise the achievement of career-bound students. Its purpose is to help high schools determine where they are in relation to the goals and key practices of the program. It begins by discussing the rationale for a needs assessment and cites advantages of compiling data in the early stages of program participation. The main body of the guide is devoted to discussion of the five basic questions on which data are collected and organized during the needs assessment: who the career-bound students are and how they are doing, what they are taught, what is expected of them, how they are taught, and how the school is organized to serve them. Other sections address compiling and using data from the questions, using data sources to do a needs assessment, and progressing from needs assessment to action. A table illustrates how to record the problems, causes, and strategies. (YLB)



SITE DEVELOPMENT GUIDE

#3

NEEDS ASSESSMENT

Needs Assessment Can Help Achieve the Vision of a High School That Works for Career-Bound Students

The purpose of this guide is to help high schools determine where they are in relation to the goals and key practices of the *High Schools That Work* program. (See goals and key practices on page 15.) Once high school leaders pinpoint their current status, they can proceed with a set of actions to close the gap between "what is" and "what is desired."

THE FIRST STEP IN GETTING WHERE YOU WANT TO BE IS TO DETERMINE WHERE YOU ARE

Before a *High Schools That Work* site can get where it wants to be in raising the achievement of career-bound students, it must answer three basic questions:

- What is our current status in serving career-bound students?
- How large is the gap between "what is" and "what is desired" by the *High Schools That Work* program?
- How do we get from "what is" to "what is desired"?

To answer these questions, school leaders and teachers must conduct a needs assessment that gives a clear picture of the school and its students in relationship to *High Schools That Work* goals and key practices. A needs assessment is a tool for identifying and documenting needs. Information from a number of sources is collected to describe the current situation. The differences in "where you are now" and "where you want to be" in student achievement and school practices are the needs. A *High Schools That Work* site should gather information on students and programs as part of developing an action plan. The advantages of compiling data in the early stages of program participation—rather than waiting for annual or semi-annual reports from SREB—include the following:

- You will have data from a number of sources to guide your planning;
- You will develop a data collection system that allows you to track your progress annually and adjust school practices as needed.
- Teachers and school leaders who compile the data will be more likely to "internalize" the school's needs and become "energized" to take action.

NEEDS ASSESSMENT INVOLVES ANSWERING KEY QUESTIONS ABOUT YOUR HIGH SCHOOL

A needs assessment for the *High Schools That Work* program involves collecting and organizing data on five basic questions:

- Who are the career-bound students, and how are they doing?
- What are they taught?
- What is expected of them?
- How are they taught?
- How is the school organized to serve them?

Who Are The Career-Bound Students, And How Are They Doing?

The most basic item of information is the number of graduating seniors in your school who are:

- **College preparatory students**—those who are preparing to attend a four-year college or university after graduation. They are taking a college preparatory program of at least three years of math at the level of Algebra I and higher; at least three years of lab science, including either chemistry or physics; four years of college preparatory English; and at least two years of foreign language.
- **Career-bound students**—the "other" students, who plan to work or attend a two-year community college or vocational-technical school. They are not planning to enter a four-year college or university, but may attend at some future time. This group of students includes:
  - *Tech prep completers*—students completing a high-level, integrated program

TABLE 1

Needs Assessment for High Schools That Work

Who Are the Career-Bound Students, and How Are They Doing?

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
1. Number and percent of seniors completing: ◆ College prep program of study ◆ 4 credits in a vocational major (vocational completers) ◆ 4 credits in a vocational major and 3 credits each in math and science, including 2 each in high-status courses (tech prep program of study) ◆ General program of study (none of the above)	Student transcripts			SREB goal of 90 percent completing either a tech prep or college prep program of study
2. Achievement of vocational majors in math, science, and language arts	National Assessment of Educational Progress (NAEP) scores in math, science, and language arts; other local achievement data			The math, science, and reading competencies of career-bound students will equal the national average of all students by the year 2000.

of academic and vocational study that includes at least four credits in an approved vocational area; three mathematics and three science courses, including at least two in each area that are equivalent to college preparatory math and science; and four language arts courses.

- *Vocational completers*—students completing at least four credits in an approved vocational area.
- *General students*—those who are not taking a college prep or tech prep program of study or majoring in a vocational area.

SREB recommends that every high school student complete either a tech prep or college prep program of study.

To measure how career-bound students are doing, you will want to look at scores of recent graduates on National Assessment of Educational Progress (NAEP) tests in mathematics, science, reading, and writing. Administering the NAEP tests to vocational completers is an

TABLE 1 (Continued)

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
3. Percent of students failing one or more courses at each grade level	School records			Annual decrease in failure rate
4. Number and percent of dropouts, grades 9-12	School records			90% high school completion rate
5. Number and percent of students entering two-year community or technical colleges or apprenticeships; number and percent of those students enrolled in one or more non-credit developmental or remedial courses	Postsecondary institution records			80% of career-bound students ready for college-level courses
6. Employer opinions of the work readiness of career-bound graduates	Survey of local employers			Composite rating of 8 on a 10-point scale for 15 competencies
7. Opinions of postsecondary academic and vocational teachers on career-bound graduates' preparation for learning	Reports from postsecondary institution or survey of local postsecondary teachers			

important component of the *High Schools That Work* program. Information from local high school graduation tests and other standardized tests, such as ACT and SAT, will also be helpful.

School records will show how many students are failing one or more courses and the number of dropouts in grades 9 through 12 for the most recent year.

Local employers and postsecondary schools are excellent sources of information on whether your school provides career-bound students with a solid academic and vocational foundation. Employers are candid about the work readiness of recent graduates in regard to vocational skills and such academic-based competencies as problem-solving, decision-making, communication, flexibility, and teamwork. Postsecondary representatives can respond to questions about those same competencies and can report on the number of your graduates who are enrolled in one or more non-credit developmental or remedial courses.

Basic Questions High Schools Should Answer About Their Career-Bound Students

1. What percent of 1993 high school graduates completed—A college preparatory program of study? Four Carnegie Units in a vocational major? Neither of the above?

2. What percent of your high school's vocational and general graduates enroll in further study one year after high school, and what percent of them must take one or more remedial courses?

3. What percent of your high school graduates who completed a vocational major can—Solve a three- to five-step math problem? Read and interpret materials in their field of study written at Grade 12 and 13 levels?

4. What percent of employers who hired your high school graduates over the past five years say that they—Can write well? Have disciplined work habits? Can solve complex problems? Demonstrate the capacity to concentrate on a difficult task? Demonstrate the ability to read and understand written and verbal instructions?

What Are Career-Bound Students Taught?

Career-bound students must have access to high-level academic courses and modern vocational courses that meet industry standards. You will want to count the number and percent of sections of mathematics, science, and language arts courses with content below the college preparatory level. Look for low-level courses, such as "basic algebra" and "general science," that can become dumping grounds for students considered unable or unwilling to take tougher courses.

The vocational courses taken by career-bound students should relate to each other in a broad occupational field. SREB recommends redesigned and re-focused courses that reflect modern standards of business and industry, and give students opportunities to learn at the worksite as well as in the classroom or vocational lab. Vocational courses should include emphasis on math, science, reading, and writing as preparation for a job or further education.

Academic and vocational courses should provide frequent opportunities for career-bound students to do challenging tasks and solve complex problems. Students should be asked to complete large, complex projects rather than perform simple, repetitive tasks.

Basic Questions High Schools Should Answer About What Career-Bound Students Are Taught

1. What percent of graduates completing a general or vocational major at your school report that their high school curriculum—Was repetitive? Was unchallenging?

2. What percent of your most recent graduates who completed four credits in a vocational major also completed—Three years of math, with at least two years being equivalent to Algebra I and higher? Three years of science, with at least two years being equivalent to chemistry, physics, or a college prep lab-based biology?

3. How many levels of math, science, and English courses does your school offer? Do the

TABLE 2

Needs Assessment for High Schools That Work

What Are Career-Bound Students Taught?

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
1. Number and percent of career-bound students completing:	Student records; Student questionnaire			
a) 4 years of college prep English				
b) 3 years of math, including 2 high-level credits				
c) 3 years of science, including 2 high-level credits				
d) 4 credits in a vocational major				90% of career-bound students
e) both b and d				90%
f) both c and d				90%
2. Number and percent of sections of math, science, and language arts courses below college preparatory level	Curriculum review			No more than 5 to 10%
3. Number and percent of students who say vocational teachers often stress math, science, and reading	Student questionnaire; Teacher survey			80% math 50% science 70% reading
4. Extent to which the vocational curriculum reflects technical and related academic content and performance standards judged acceptable by business and industry	External curriculum review			100% of vocational courses validated by a team of experts from business, industry, and professional fields
5. Students asked to do challenging tasks and solve complex problems in academic and vocational classes	Student questionnaire (selected items)			80% of students say they are asked to do challenging tasks and problems

different levels use different textbooks? Do students in different levels have different assignments and expectations? How do instructional methods differ for different levels of the same courses?

4. What percent of your vocational graduates report that vocational teachers often stressed math, science, and reading?

5. What number and percent of math, science, and language arts courses are below the course level you would recommend for entering a four-year college or university?

6. What percent of your vocational courses reflect the technical and related academic content and performance standards that would be judged acceptable by an outside panel of employers, workers, and professionals from the related field of study?

7. What percent of students classified as career-bound are frequently asked by academic and vocational teachers to do challenging tasks and solve complex, high-level problems?

What is Expected of Career-Bound Students?

The *High Schools That Work* program is based on the belief that career-bound students can meet higher standards if more is expected of them, opportunities for higher-level learning are provided, and extra help is available.

To assess your needs, you will want to know how much academic and vocational teachers expect of career-bound students. Are the expectations and standards as high in academic courses provided to career-bound students as in courses for college prep students?

Look for evidence that vocational teachers ask students to use mathematics, science, and communication skills to solve complex problems, and that homework is assigned and reviewed in academic and vocational courses.

The school should have a system of tutoring and assistance that students can call on before, during, and after school. Extra assistance and extended time can help reduce the number of failures in high-level academic and vocational courses.

The school should expect career-bound students to take high-level math or science courses during both junior and senior years.

Basic Questions High Schools Should Answer About What Is Expected of Career-Bound Students

1. What percent of students who completed a general or vocational major at your school report that they never did homework outside the classroom in four years of high school?

2. What percent of students completing four credits in a vocational major say they were assigned in senior year—A book to read outside of class? Did they read it? A major research paper? Did they do it?

3. What percent of your vocational completers say their vocational teachers gave them homework at least once a week?

4. What percent of career-bound students take a high-level math or science course in senior year?

5. What percent of career-bound students say they frequently are held to high performance standards in all their classes?

How Are Career-Bound Students Taught?

Career-bound students need an instructional process that asks them to do challenging, relevant tasks at a high-quality level. If schools expect a lot from career-bound students, and if the students know that their teachers believe they can do it and are willing to support their efforts, they will respond accordingly.

Traditionally, career-bound students learn best by doing things that relate to what they are now and what they hope to become. A science or algebra concept has more meaning when it is connected to what students already know and to how they will use the concept on the job and in life.

TABLE 3

Needs Assessment for High Schools That Work

What Is Expected of Career-Bound Students?

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
1. Career-bound students have to use high-level math, science, and communication concepts to solve problems and perform real tasks	Student questionnaire (selected items) Teacher Survey (selected items)			Student average response is 3 on a 4-point scale
2. Math, science, and language arts teachers assign challenging projects and tasks that prepare career-bound students for work or further education	Student questionnaire (selected items) Teacher survey (selected items)			Student average response is 3 on a 4-point scale
3. Amount of repetition in courses and materials	Student questionnaire (selected items)			80% of students do not see their courses as repetitive
4. Homework in academic and vocational classes assigned and reviewed	Student questionnaire (selected items) Teacher survey (selected items)			90% of students indicate they average an hour of homework daily
5. Number and percent of career-bound students who take high-level math or science in senior year	Student records; Student questionnaire			90%
6. Extra help and/or tutoring available	Student questionnaire (selected items)			Annual reduction in course failure rate
7. Results of an external review to determine differences in expectations for career-bound students and for college prep students in academic and vocational courses	External review of expectations and standards in all academic and vocational courses			High expectations and standards exist in all courses.

TABLE 4

Needs Assessment for High Schools That Work

How Are Career-Bound Students Taught?

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
1. Number of math, science, and language arts courses taught through an applied instructional system	Curriculum review; Student records			
2. Number and percent of career-bound students who engage in joint learning projects in math, science, and language arts in vocational courses	Student questionnaire (selected items)			100% of students
3. Career-bound students are actively engaged in meaningful learning assignments	Student questionnaire (selected items)			100% of students
4. Career-bound students average at least two days a week in labs for a science course	Student questionnaire (selected items)			100% of students
5. Career-bound students use high-level academic competencies to solve real problems	Student questionnaire (selected items)			100% of students

In determining how career-bound students are taught, high school leaders and teachers will want to take note of instructional methods. One way is to identify the number of courses in mathematics, science, and language arts taught through a functional or "applied" method that involves students in hands-on learning. Applied courses such as Principles of Technology, Applied Math, and Applied Biology/Chemistry allow students to learn essential concepts of college preparatory courses through applied and cooperative learning methods.

The integration of academic and vocational education creates opportunities for academic and vocational teachers to work jointly in planning challenging, relevant classroom and lab activities for groups of students. How many students have opportunities to work in teams to solve problems or complete projects—instead of listening passively to lectures?

You also will want to look at the vocational and academic curriculum to see if career-bound students are engaged in meaningful learning assignments like those often found in good col-

lege preparatory courses. Are students expected to make oral presentations, write definitive papers, and demonstrate that they can use complex academic skills to solve tough problems in their vocational fields of study? You will need to determine if career-bound students engage in solid lab science experiences.

Basic Questions High Schools Should Answer About How Career-Bound Students Are Taught

1. What percent of seniors with a vocational major say they have engaged in a challenging joint learning project in which they were coached by both a vocational and an academic teacher and received a grade in both classes? What percent say the teachers involved were—Math and vocational? Science and vocational? English and vocational?

2. What percent of senior career-bound students say they have engaged in at least two major activities a year using academic skills to solve real problems? What percent in math? What percent in science? What percent in English?

3. What percent of career-bound students say they averaged at least two days a week in labs in science courses in high school?

4. What percent of math, science, and English courses have been revised to use functional, applied methods to teach career-bound students the essential content from the college prep curriculum?

5. What percent of career-bound students say they stood before a math, science, or English class in junior or senior year to make an oral presentation about a project they completed in that subject?

6. What percent of students completing four credits in a vocational major say they maintained a record of math and science skills used in their vocational classes?

7. What percent of students completing a vocational major say they wrote a paper in vocational classes describing how they solved a problem or proposed a plan for addressing a complex situation in their field of study?

How Is the School Organized to Serve Career-Bound Students?

The way a school is structured contributes to the achievement of career-bound students. Teachers as well as guidance counselors should become involved in helping career-bound students plan a challenging and coherent program of academic and vocational study for grades 9 through 12. Parents should be active in planning and updating the program and in encouraging their children to take high-level courses.

Administrators at many *High Schools That Work* sites create common planning times for academic and vocational teachers, and make blocks of time available in the schedule for team teaching of such academic and vocational courses as language arts and office technology, or science and health occupations.

Schools that have the most success in preparing students for the future welcome the participation of the private sector and post-secondary schools. Employers and college-level educators know what high schools should teach career-bound students to improve their chances for success in employment and education. Business and industry are willing and able to provide materials, personnel, and programs to support high schools in preparing students for the real world.

Integrating academic and vocational education adds new topics to the school's staff development agenda—topics such as raising expectations, applied academics, reading for learning, cooperative learning, team teaching, interdisciplinary teams, and involving parents and the community. Teachers should be asked to assess their staff development needs in terms of teaching high-level academic content and getting students to make the effort to master difficult material. Staff development activities should involve academic and vocational teachers together.

TABLE 5

Needs Assessment for High Schools That Work

How Is the School Organized To Serve Career-Bound Students?

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
1. Number and percent of career-bound students who have help from a teacher or guidance counselor in planning a program of study	Student questionnaire (selected items)			100%
2. Number and percent of career-bound students whose parents meet individually with a counselor or teacher advisor to help plan and update an annual program of study	School records; Student questionnaire			90%
3. A system exists for academic and vocational teachers to meet regularly to make plans for raising the achievement of career-bound students	Teacher survey			An active Curriculum focus team
4. Number and percent of academic and vocational teachers who meet at least monthly to plan curriculum and/or joint learning activities for their career-bound students	Teacher survey			50% of academic and vocational teachers report meeting monthly

Basic Questions High Schools Should Ask About How the School Is Organized to Serve Career-Bound Students

1. What percent of academic and vocational teachers have met together for at least one hour a month during the past 12 months to discuss ways to improve the academic achievement of students in general and vocational studies?
2. What percent of students completing a vocational major say their counselor helped them choose math and science courses? Who

TABLE 5 (Continued)

Indicators	Data Sources	Where You Are Now	Gaps	Where You Want to Be
5. Business and industry leaders meet with school and teacher leaders on areas needing improvement in the preparation of career-bound students	Meeting minutes/action items			Some formal exchange occurs annually.
6. Postsecondary faculty and leaders meet with school and teacher leaders on areas needing improvement in the preparation of career-bound students	Meeting minutes/action items			Some formal exchange occurs annually.
7. Number and percent of academic and vocational teachers participating in joint staff development	Staff Development focus team minutes and records			85% of academic and vocational teachers have participated jointly in staff development

has the highest achievement—the students who received help from a counselor or the students who chose math and science on their own?

3. What percent of students completing a vocational major say the teacher who cared most about their success was—A math teacher? A science teacher? An English teacher? A vocational teacher? A social studies teacher?

4. What percent of vocational teachers spent the equivalent of six hours during the past 12 months observing academic teachers teach? What percent of academic teachers spent at least six hours observing vocational teachers?

5. What percent of career-bound seniors say their parents met individually with them and a counselor or teacher in Grade 8 or 9 to plan a four-year program of study?

6. What percent of academic and vocational teachers say they have identified areas that need improvement in the preparation of career-bound students by meeting in the past 12 months with—A group of business and industry leaders? A group of leaders and teachers from a two-year community or technical college?

COMPILING AND USING DATA FROM THE QUESTIONS

The Overall Site Team oversees the needs assessment process. The four focus teams—Curriculum, Staff Development, Guidance and Public Information, and Evaluation—are charged with collecting and organizing the data. The focus teams are composed of academic and vocational teachers, counselors, administrators, business and industry representatives, and postsecondary educators.

High Schools That Work sites should have an active Evaluation focus team that takes the lead in helping other teams collect and analyze data and develop "problem statements" based on findings about the school and its career-bound students. (A typical problem statement might be, "School works better for some students than for others.") The Evaluation focus team should share the needs assessment results with all faculty and staff, and enlist their support in designing and taking action to help the school get where it wants to be.

The Curriculum focus team will look at ways to improve courses and instruction. The Staff Development focus team will plan activities to bring academic and vocational teachers together to develop skills for teaching high-level academic concepts and job-related competencies. The Guidance and Public Information focus team will consider how to involve parents and teachers in helping students develop four-year programs of study. The Evaluation focus team will use the data to heighten awareness of problems and to monitor what is and is not working.

USING DATA SOURCES TO DO A NEEDS ASSESSMENT

The answers to the key needs assessment questions are found in student achievement tests, SREB student and teacher surveys, school records, and such local sources as employers and postsecondary schools. The major data collection instruments are:

- ✓ **National Assessment of Educational Progress (NAEP) tests** in mathematics, science, reading, and writing—administered to "vocational completers" at SREB *High Schools That Work* sites. The results are reported to the schools, and the information is used by SREB (without identifying students or schools) to measure the impact of *High Schools That Work* key practices on the achievement of career-bound students. The average scores of vocational completers are compared to the average scores of students nationwide. NAEP tests were administered at *High Schools That Work* pilot sites in 1988 and 1990. They will be administered in 1993 and 1994, depending on when a school enters the program, and in 1996 and 1998.

- ✓ **SREB 1993 Student Questionnaire**—contains 134 questions for students who are completing a vocational major. Given in conjunction with the NAEP tests, the survey gathers demographic information, course-taking patterns, and other high school experiences of career-bound students. The students respond to questions about the level of expectations, instruction, and extra help they receive from teachers, counselors, and parents. They also provide information about their work experience—such as whether employment while in high school prepared them to advance to a better job.

- ✓ **Student Transcript Analysis**—a study of course-taking patterns of vocational completers at *High Schools That Work* sites, conducted by SREB and the National Center for Research in Vocational Education, based on transcripts of the courses students have taken and responses to the Student Questionnaire. Each site receives a customized report that gives the proportion of vocational graduates earning credit in particular kinds of courses and relates the information to their performance on the NAEP tests. A school may want to do its own transcript analysis, depending on when the needs assessment is conducted.

- ✓ **Student Follow-up Survey**—mailed to "vocational completers" one year after they took the NAEP tests. The survey contains multi-part questions on the effectiveness of the high school vocational program. Former students report their work or education experience since high school, the occupational field in which they are working, and perceptions of how well high school prepared them for the workplace and further education. Permission is sought to contact employers for opinions on the vocational preparation of respondants.
- ✓ **Teacher Survey**—completed by academic and vocational teachers, administrators, and counselors at *High Schools That Work* sites. Given in the same years as the NAEP tests, the survey contains questions that reveal the level of participation of faculty and staff in key practices. The survey also reveals preferences for future staff development activities. Each *High Schools That Work* site receives a summary report of the major staff development needs seen by faculty and staff at that site.
- ✓ **Employer Survey**—for feedback on the job readiness of recent graduates of your high school. Questionnaires and one-on-one or group interviews are ways to ask local employers how they rate new workers on specific work-related competencies. (A 1991 study by the Louis Harris organization[1] revealed that recent high school graduates gave themselves an average rating of 7 on a 10-point scale for job-related skills in mathematics, problem-solving, and communication. Yet, employers of those graduates gave them only an average of 3 on a 10-point scale on the same job-related skills. (A sample questionnaire—Employers' Opinions on Employees Who Are Recent High School Graduates—is available from SREB.)
- ✓ **Feedback from Postsecondary Schools**—tells high schools how their career-bound graduates are doing and what problems they may be encountering in postsecondary education. High schools need to determine how many postsecondary students are taking developmental or remedial non-credit courses, and what percent of those students completed a high school program of study other than college prep. Institutions that enroll the majority of your career-bound students can provide the information.
- ✓ **Local Achievement Data**—Standardized tests, ACT and SAT scores of students who complete an academic core versus those who do not, statewide graduation tests, and end-of-course tests can help determine how your school is doing in preparing career-bound students.
- ✓ **Other data sources** include external reviews of the academic and vocational courses taken by career-bound students. These curriculum reviews should be conducted by representatives of business, industry, and postsecondary education.

FROM NEEDS ASSESSMENT TO ACTION

After compiling and reviewing the data, the four focus teams meet jointly to develop problem statements based on identified needs. The statements will be submitted to the Overall Site Team to become the basis of an action plan for positive change.

Tables 1 through 5 provide a formal way for high schools to compile and organize data on needs assessment questions. These tables will allow the site focus teams to prepare a summary table of indicators, findings, and the degree of discrepancy between "where you are now" and "where you want to be." Discrepancy tables help the group determine what should and can be done first.

From the data presented, the group will distill a few major problems that require action. One problem might be that career-bound students do not achieve at a level for success in

[1] Results are reported in *An Assessment of American Education: The View of Employers, Higher Educators, The Public, Recent Students, and Their Parents*, available from the Committee for Economic Development, 477 Madison Avenue, New York, NY 10022, (202) 688-2063.

TABLE 6

Needs Assessment for High Schools That Work

Problem Statements, Causes, and Strategies

Problem	What Causes the Problem	*High Schools That Work* Strategy For Solving the Problem
1. Too few career-bound students perform at a level for success in the modern workplace and continued learning.	School conditions do not support higher expectations, higher-level courses, and challenging tasks.	Create conditions that support achievement by raising expectations, guiding career-bound students into high-level courses, and assigning challenging problems to solve and projects to complete.
2. Students cannot solve complex problems.	Students do not take high-level math and science that prepare them for solving complex problems. Students work on narrow skills and small tasks rather than big projects. Course content is sequential rather than integrated.	Re-structure the curriculum to give students large, meaningful problems to solve. If they see the whole problem, they are more likely to work hard to solve it.
3. School works better for some students than for others.	Schools divide students into those they believe want to learn and those they believe are not or cannot be motivated to learn.	Give all students access to high-status courses. Consider all students able to learn.
4.		
5.		
6.		

employment or further education. The group will identify causes of the problem, for example, that school conditions do not support higher expectations, higher level courses, and challenging tasks. Finally, the group will identify a *High Schools That Work* strategy for solving the problem. In this case, the strategy might be to raise expectations, guide career-bound students into high-level courses, and assign challenging problems and projects. (Table 6 above illustrates how to record the problems, causes, and strategies.)

Staff, time, and other constraints will make it impossible for a site to address all identified problems in the first year of the program. Planners should determine priorities for a year or two at a time, taking into consideration such factors as personnel, facilities, funding, and potential impact on students.

SREB-STATE VOCATIONAL EDUCATION CONSORTIUM
HIGH SCHOOLS THAT WORK PROGRAM

Goals

- To increase the mathematics, science, and communication achievement and the application of learning for career-bound students to the national average of all students.
- To integrate the essential content of traditional college preparatory studies—math, science, and language arts—with vocational and technical studies, by creating conditions that support school leaders and teachers in carrying out certain key practices.

Key Practices

- Setting higher expectations and getting career-bound students to meet them;
- Increasing access to challenging vocational studies, with a major emphasis on using high-level math, science, language arts, and problem-solving competencies in the context of modern business and technical studies;
- Increasing access to academic studies that teach the essential concepts from the college preparatory curriculum through functional and applied strategies that enable students to see the relationship between course content and future roles they may envision for themselves;
- Having students complete a challenging and related program of study, including three courses in mathematics and three in science, with at least two credits in each course equivalent in content to courses offered in the college preparatory program, and having students complete at least four courses in a vocational major and two courses in related areas;
- Having an organizational structure and schedule that enable academic and vocational teachers to have the time to plan and deliver an integrated curriculum aimed at teaching high-status academic and technical content;
- Having each student actively engaged in the learning process;
- Involving each student and his/her parent in an individualized advisement system aimed at ensuring that each student completes an accelerated and coherent program of academic study with a vocational or academic major;
- Providing a structured system of extra help to enable career-bound students to complete successfully an accelerated program of study that includes high-level academic content and a major;
- Using student assessment and program evaluation information to check and improve the curriculum, instruction, school climate, organization, and management.

SUMMARY

The needs assessment process can inspire site leaders and teachers to begin making changes in the way the school prepares career-bound students.

Needs assessment clarifies where a school is—and where it wants to be—on critical issues dealing with what is expected of career-bound students; what and how they are taught; how academic and vocational teachers relate to each other and to students; and how the school interacts with parents, the business community, and postsecondary education. Baseline data is essential for measuring the school's progress toward becoming a high school that works for *all* students.

For more information, contact Gene Bottoms, Director, *High Schools That Work*, Southern Regional Education Board, (404) 875-9211.

The High Schools That Work *program is the nation's largest and fastest growing effort to raise the achievement of career-bound students. Created by the Southern Regional Education Board-State Vocational Education Consortium, the program includes school and school system sites in 19 states.*

These guidelines are based on the Consortium's experience with High Schools That Work *sites during the first five years of the program. The guidelines are designed to be a framework for positive action at the school site and in the classroom.*

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