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**NATIONAL CENTER FOR EDUCATION STATISTICS**

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**Survey Report**

**May 1991**

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**College-Level  
Remedial Education  
in the Fall of 1989**

**Contractor Report**

Data Series:  
FRSS-38

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U.S. Department of Education  
Office of Educational Research and Improvement

**NCES 91-191**

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# **College-Level Remedial Education in the Fall of 1989**

## **Contractor Report**

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Data Series:  
FRSS-38

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U.S. Department of Education  
Office of Educational Research and Improvement

**NCES 91-191**

**U.S. Department of Education**

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**May 1991**

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## Highlights

- **Three** out of four colleges and universities offered at **least** one remedial course in fall **1989**. **Sixty-eight** percent offered **mathematics**, **65** percent **writing**, and **58** percent **reading**.
- Both in institutions with a predominantly **minority** student **body** (**less than 50** percent **white**) and **institutions** with a predominantly **nonminority** student body (**greater** than or equal to **50** percent **white**), **74** percent of the institutions offered at least one remedial **course**.
- At least one remedial course was offered in **91** percent of public **colleges**, **90** percent of **2-year colleges**, **64** percent of **4-year colleges**, and **58** percent of private **colleges**.
- On **average**, colleges with remedial courses provided two different courses in a given remedial **subject**; on **average**, **15** **people** per **college** taught one or more **remedial** courses in fall **1989**.
- **Thirty** percent of all college freshmen took at least one remedial course in fall **1989**. **Twenty-one** percent took **mathematics**, **16** percent **writing**, and **13** percent **reading**.
- At institutions with a predominantly minority student **body**, **55** percent of freshmen enrolled in at least one remedial **course**; at institutions with a predominantly **nonminority** student **body**, **27** percent of freshmen enrolled in at least one remedial **course**.
- Approximately **17** percent of **institutions** were unable to provide **enrollment** data for freshmen in remedial **courses**. **About 30** percent of institutions that provided remedial course enrollment data were unable to provide racial/ethnic **breakdowns**.
- Remedial courses were passed by **77** percent of those **taking** remedial **reading**, **73** percent taking remedial **writing**, and **67** percent taking remedial **mathematics**.
- **Approximately** one-fourth of institutions were unable to provide passing rates for freshmen in remedial **courses**, and about **one-half** were unable to provide passing rates by racial/ethnic **breakdowns**.
- **About 20** percent of colleges offering remedial education had a separate remedial department or **division**; **98** percent offered at least one support **service**, such as peer tutoring and **counseling**; and **97** percent of institutions conducted at least one evaluation of remedial **programs**, such as reviewing student completion rates of remedial **courses**.
- **Approximately 20** percent of colleges awarded degree credit for remedial **courses**. **About two-thirds** awarded institutional **credit**, which counted in determining full-time status but not toward degree **completion**. **One-tenth** awarded no credit at **all** for such **courses**.

- Remedial courses were required for students not meeting institutional standards in **68** percent of **colleges** offering remedial **writing**, **63** percent offering remedial **mathematics**, and **54** percent offering remedial **reading**.
- About **90** percent of institutions providing remedial courses used placement tests to select participants for remedial **courses**; remedial-course exit skills were based on regular **academic**-course entry skills by **86** percent of institutions for remedial mathematics **courses**, by **81** percent for remedial writing **courses**, and by **70** percent for remedial reading **courses**.
- One-third of colleges providing remedial education allowed students to take any regular academic courses while taking remedial **courses**; **in** only **2** percent could students take no regular academic courses while taking remedial **courses**.
- Forty percent of colleges providing remedial courses were not engaged in any activities to reduce the need for remedial **education**. Fifty-four percent communicated with high schools about skills needed for college **work**, and **19** percent participated **in** or organized workshops for high **school faculty**.
- Forty-seven percent of institutions were unable to provide retention rates to the second year for freshmen who had enrolled in at least one remedial **course**, and approximately **66** percent of institutions were unable to provide these rates by **race/ethnicity**.
- Eighty-one percent of colleges did not maintain baccalaureate degree graduation rates for entering freshmen who enrolled in at least one remedial **course**, and **87** percent did not maintain graduation rates by racial/ethnic group for these **students**.
- Institutions offering one or more remedial courses in **reading**, **writing**, or mathematics decreased from **82** percent in **1983-84** to **74** percent in **1989-90**.

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# Background

**R**emedial education has been an **enduring**, integral part of higher **education**, as has the concern about the place of **remediation** in **college-level education**. That concern has led to a long-standing debate which encompasses issues of equity--providing adequate preparation for a diverse student population--and issues of **quality**--ensuring high standards at colleges and **universities**.

As early as the late **1800s**, colleges and universities in **America** operated programs to prepare students for undergraduate **work**. **Often, however**, the students enrolled in such preparatory **programs** were barely **teenagers**. **Therefore**, they did not have the same number of years of elementary and secondary school education as today's college-level remedial **students**. Over **40** percent of entering students in colleges in the United States in **1894** were preparatory **students**.<sup>1</sup> Preparatory programs were considered **pre-college** and generally were found at **2-year** colleges from the **1920s** until the late **1960s**.

In the **1970s**, remedial education at **2-year** and **4-year** colleges became more common **in** response to changing **enrollment** patterns of entering **freshmen**, declining high school achievement **levels**, and adoption of open admission standards on the part of many **institutions**. The state of remedial education in higher education institutions as the **1990s** begin is the topic of this **report**.

This report presents the findings of a Fast Response Survey System (**FRSS**) **survey** of colleges on **remedial/developmental** programs offered during fall **1989**. The survey was conducted to meet the need for information at the national level on the extent of remedial education and the characteristics of remedial **programs**. The survey provides national estimates on the **following**:

- Institutions that offered remedial **courses**;
- **Reading, writing**, and mathematics remedial courses **offered**;
- Students enrolled in and passing remedial **courses**; and
- Faculty teaching remedial **courses**.

It also provides information on characteristics of remedial courses and **programs**, such as the type of credit **given**, requirement **status**, use of placement **tests**, most frequent provider of remedial **education**, evaluations **conducted**, support **services offered**, activities engaged in to reduce the need for remedial **education**, and maintenance of retention and baccalaureate degree graduation rates for students who enrolled in remedial **courses**.

This study provides the **first** data collected at the national level since a **1983-84 FRSS** survey on the same **topic**. In addition to updating the national picture of college remedial **education**, the current survey attempted to furnish estimates of racial/ethnic participation

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<sup>1</sup>Arthur Levine, Handbook on Undergraduate Curriculum. San Francisco: Jossey-Bass, 1978.

in remedial education in order to determine the extent of remedial education provided to **minority** students by higher education institutions. **Racial/ethnic** breakdowns are not **reported, however**, because the percentage of institutions that maintained and could provide these data was too low to **serve** as the basis for the computation of national **estimates**.

The survey first asked whether institutions offered a remedial course in **reading, writing, or mathematics**. "**Remedial studies**," for the purposes of this **study**, were defined as any **program, course, or other activity (in the area of reading, writing, or mathematics)** for students **lacking** those skills necessary to perform college-level work at the **level** required by the **institution**. Throughout the **questionnaire**, these activities were referred to as "**remedial/developmental**." **However**, respondents were asked to include any activity meeting the **definition**, regardless of **name**. Colleges may have used one of a variety of names such as **compensatory** and **basic skills** all of which meet the definition for remedial **studies**.

The report presents **all** of the data for **all institutions**, by control (**public and private**), type (**2-year and 4-year**), geographic region (**Northeast, Central, Southeast, and West**), enrollment size of institution (**less than 1,000; 1,000 to 4,999; and 5,000 or more**) and minority status (**student body less than 50 percent white and student body greater than or equal to 50 percent white**). Some of the characteristics are **interrelated**. For **example**, only **22** percent of **2-year** institutions are **private**, compared to **70** percent of **4-year institutions**. Similar patterns generally emerge for public and **2-year colleges; likewise**, private and **4-year** colleges often have similar patterns.

Survey findings in this report are organized into three main **sections**. The first section discusses the number of **institutions, courses, freshmen**, and teachers involved in **college-level remedial education**; the second describes remedial courses and **programs**; the third compares data from this survey to data from the **1983-84 survey**.

# Participation in College- Level Remedial Education

## Institutions Offering Remedial Courses

Institutions were asked whether they offered remedial courses in reading, writing, or mathematics. Three-fourths of colleges and universities reported offering remedial courses as part of their curricula in fall 1989 (table 1), and they varied greatly by institutional control, type, selectivity,<sup>2</sup> and size. By categories of institutions,<sup>3</sup> comparisons of those offering at least one remedial course in reading, writing, or mathematics were as follows:

- Ninety-one percent of public colleges versus 58 percent of private colleges;
- Ninety percent of two-year colleges versus 64 percent of 4-year colleges;
- Ninety-six percent of noncompetitive colleges; 73 percent of minimally difficult colleges, and 62 percent of moderately difficult colleges versus 32 percent<sup>4</sup> of very difficult colleges, and 27 percent\* of most difficult colleges; and
- Eighty-seven percent of large colleges and 78 percent of medium-sized colleges versus 60 percent of small colleges.

These patterns in control, type, selectivity, and size for colleges offering at least one remedial course mirrored patterns for colleges offering remedial courses in the specific subjects of reading, writing, and mathematics. In remedial mathematics, 68 percent of institutions offered courses; in remedial writing, 65 percent; and in remedial reading, 58 percent.

## Number of Remedial Courses

Colleges with remedial courses typically offered one or two separate courses in each subject in fall 1989 (table 1). For example, 38 percent of institutions offering courses in remedial mathematics had one course, 29 percent had two, 24 percent had three or four, and 9 percent had more than four. Similar patterns emerged for course offerings in remedial reading and writing (not shown in tables).

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<sup>2</sup>Colleges were classified based on the selectivity of their admission criteria according to Peterson's Guide to Four-Year Colleges, 1990 and Peterson's Guide to Two-Year Colleges, 1990. Classifications for 4-year colleges are defined as followed most difficult, more than 75 percent of the freshmen were in the top 10 percent of their high school class and scored over 1,250 on the SAT or over 29 on the ACT, and about 30 percent or fewer of the applicants were accepted; very difficult, more than 50 percent of the freshmen were in the top 10 percent of their high school class and scored over 1,150 on the SAT or over 26 on the ACT, and about 60 percent or fewer of the applicants were accepted; moderately difficult, more than 75 percent of the freshmen were in the top half of their high school class and scored over 900 on the SAT or over 18 on the ACT, and about 85 percent or fewer of the applicants were accepted; minimally difficult, most freshmen were not in the top half of their high school class and scored somewhat below 900 on the SAT or below 19 on the ACT, and up to 95 percent of the applicants were accepted; noncompetitive, virtually all applicants were accepted regardless of high school rank or test scores.

<sup>3</sup>Because the estimates are based on a statistical sample, there may be differences between the responses of the sample and those that would result from a survey of the entire population. Standard errors for selected key statistics are included in table 19.

<sup>4</sup>Standard error is greater than or equal to 10 percent of the estimate. Throughout the remainder of this report, an asterisk (\*) is used to indicate estimates that have large standard errors and, thus, should not be considered as highly precise. The standard errors for estimates with asterisks are greater than or equal to 10 percent of the estimate (table 19).

## Freshman Enrollment in Remedial Courses

Those categories of **institutions** which most frequently provided remedial courses **tended** to offer slightly more **of them**. **Public, 2-year, noncompetitive, and large** colleges averaged about one and one-half more courses **in each** subject than did **private, 4-year, moderately difficult**, and small **institutions**. For **example**, the average **number** of **remedial** mathematics courses ranged from

- 3.0 courses **in public** colleges to 1.3 **in private colleges**;
- 3.0 courses in **2-year** colleges to 1.7 in **4-year colleges**;
- 3.1 courses in noncompetitive colleges **to 1.6** in moderately **difficult**<sup>5</sup>; and
- 3.4 courses in large colleges to 1.2 in small **colleges**.

**The survey** sought **information** on the percentage of entering freshmen who were enrolled in remedial courses in **reading, writing, and mathematics**. Some institutions were unable to provide these figures and were reluctant to give **estimates**. As a result, **nonresponse** rates for freshman enrollment were about 17 percent (18 percent in **reading**, 18 percent **in mathematics**, and 16 percent in **writing**) (table 2).<sup>6</sup> Private institutions were more likely than public institutions to provide remedial course enrollment **data**. For writing **courses**, for **instance**, 5 percent of private institutions were unable to do **so, compared** to 21 percent of public **institutions**.

Of those institutions that were able to provide remedial course enrollment **data**, about 30 percent were unable to provide **racial/ethnic** breakdowns (32 percent for **reading**, 31 percent for **mathematics**, and 29 percent for **writing**) (table 2).

Thirty percent of **all** entering college freshmen enrolled in at least one remedial course in fall 1989<sup>7</sup> (table 3). Remedial courses in mathematics were taken by the most students (21 percent), followed by remedial courses in writing (16 percent), and remedial courses in reading (13 percent).

Freshman enrollment in remedial courses varied by institutional type and minority status of the student **body**. **Specifically**, the following statistically significant comparisons in the proportion of freshmen enrolled **in** remedial courses were **found**:

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<sup>5</sup>**Because** there were so few institutions *receiving* the more selective **ratings**, selectivity was not used in other **analyses**. **Selectivity** ratings are defined in footnote 2.

<sup>6</sup>**See** tables 17 and 18 for **number and percentage** of **institutions in universe** and in sample responding to survey and to enrollment **items**.

<sup>7</sup>**The** percentage of freshmen enrolled in remedial **courses** was calculated by dividing the sum of freshmen institutions taking remedial courses by the sum of freshmen at **all institutions**. Data were imputed for those institutions unable to report freshman enrollment in remedial **courses**; see page 20 in the **section on Survey Methodology** and Reliability for a description of the **imputation**.

- Thirty-six percent at **2-year** colleges versus **24** percent at **4-year colleges**; and
- Fifty-five percent at colleges with a **predominantly** minority student body versus **27** percent at those with a **predominantly nonminority** student **body**.

These patterns emerged for enrollment in remedial **reading, writing,** and mathematics **courses**. Remedial enrollments in writing and mathematics were higher at public institutions (**17** percent **in** writing and **23** percent in **mathematics**) than at private institutions (**11percent\*** in writing and **12percent\*** in **mathematics**).

## **Freshmen Passing Remedial Courses**

**Two-thirds** of the college freshmen who enrolled in remedial mathematics courses in fall **1989** passed at least one course (**table 3**). Seventy-seven percent passed courses in remedial **reading**, and **73** percent passed in remedial **writing**. These figures include **imputations** for data from about one-fourth of the institutions that offered remedial courses but were unable to provide passing **rates**.<sup>8</sup> **Nonresponse** rates for freshmen passing remedial courses ranged from **23** percent in remedial **writing**, to **25** percent in remedial **mathematics**, to **26** percent in remedial **reading**. Approximately half of the institutions were unable to provide passing rates by racial/ethnic breakdowns (**table 4**).

Freshmen **in** private or small institutions were more likely to pass remedial courses than those in public or large **institutions**. In remedial **mathematics**, for **example**, **80** percent of freshmen at private institutions **passed**; at **public**, **65** percent. In small **institutions**, **79** percent of freshmen enrolled in remedial mathematics **passed**; in **large**, **65** percent. In remedial **reading**, differences arose between **2-year** and **4-year colleges**, with **82** percent of freshmen in **4-year** colleges and **73** percent in **2-year** colleges **passing**.

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<sup>8</sup>See page 20 in the section on **Survey Methodology and Reliability** for a description of the **imputation**.

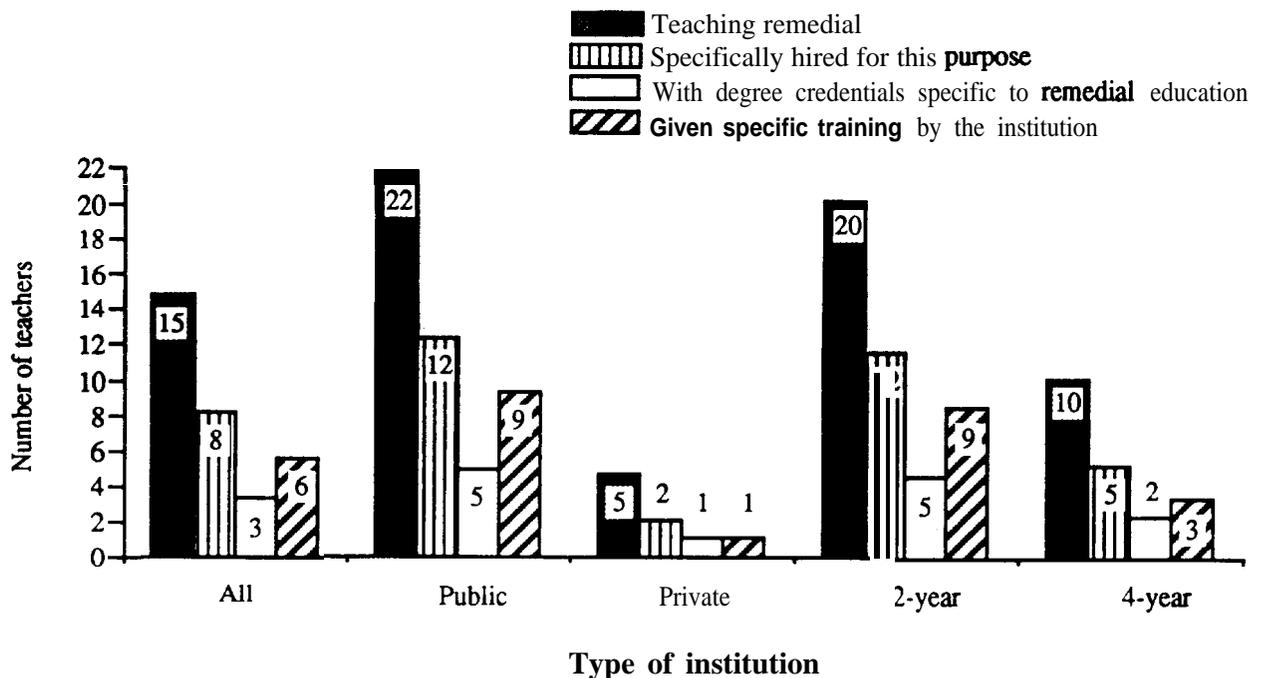
\***Standard** error is greater than or equal to **10percent** of the estimate (**table 19**).

## Teachers of Remedial Courses

In fall 1989, a total of 30,650 persons taught remedial college courses--an average of 15 persons per institution that offered remedial courses (table 5). Forty-four percent of schools with remedial courses had 5 or fewer; 23 percent had 6 to 15; and 29 percent had 16 or more.<sup>9</sup> The average number of teachers varied by institutional size, control, and type. Small colleges averaged 3 persons; large, 33 persons. In institutions with remedial courses, an average of 5 persons taught remedial courses at private colleges, compared to 22 at public institutions. Four-year colleges averaged 10 persons; 2-year colleges averaged 20.

About 8 of the 15 persons per institution teaching remedial courses were specifically hired to do so. Almost 6\* were given specific training by the institution, and about 3\* had degree credentials specific to remedial education (figure 1).

Figure 1.-- Average number of persons at an institution teaching one or more remedial course in fall 1989, by type of institution: United States, 1989-90



Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

<sup>9</sup>This item had a 4-percent nonresponse rate.

\*Standard error is greater than or equal to 10 percent of the estimate (table 19).

## Characteristics of Remedial Courses and Programs

### Type of Credit

Although the *number* of teachers with degree credentials specific to remedial education varied by **size, control**, and type of the institutions where they **taught, the percentage** of teachers **with** degrees in remedial education remained similar **in all institutions: 23 to 26 percent**.

Wider ranges--and statistically significant differences--were found in the percentage of teachers specifically hired to teach remedial courses (**45 percent at private colleges and 57 at public, for example**), and the percentage given specific training by the institutions (**19 percent at private institutions and 43 percent at public**).

**Credit** for remedial courses is an issue of considerable debate among **educators**. Some argue that awarding some form of credit is an incentive for completion of the **course**, while others believe credit for such courses represents a lowering of **standards**. In order to qualify for financial **aid**, students often must meet **full-time enrollment status**. To ensure **full-time student status**, institutions may grant "**institutional credit**" for remedial **courses**, which becomes part of a student's **permanent** college record but does not count toward degree **completion**.

The survey collected **information** on the most prevalent type of credit institutions award for each subject: no formal **credit**, institutional **credit**, degree credit toward elective **requirements**, or degree credit toward subject **requirements**. Institutional credit was the most frequent type of credit given for remedial courses in fall **1989**. For **example**, of institutions offering remedial mathematics **courses, 69 percent** gave institutional credit (**table 6**). In **contrast**, only **20 percent** awarded some degree credit (**5 percent\*** for subject requirements and **15 percent \*** for elective **requirements**) for such remedial **courses**. The remaining **11 percent\*** gave no formal **credit**.

Although this pattern was similar for **reading, writing, and mathematics**, certain **types** of institutions were more likely to award institutional credit than **others**. For remedial **math, for instance, 79 percent** of public and **2-year** colleges awarded institutional **credit**, as compared to **51 percent\*** of private and **60 percent** of **4-year** colleges.

Significant regional differences in Northeast institutions versus institutions in other areas also **appeared**. Institutional credit in remedial reading was given in **83 percent** of colleges in the **Southeast, 79 percent** in the **West, 64 percent** in the Central **region**, and **39 percent** in the **Northeast**. Institutions in the Northeast were more likely to give elective degree credit (**32 percent\***) or to give no formal credit (**28 percent\***) in remedial reading than institutions in the Southwest or **West**.

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\*Standard error is greater than or equal to 10 percent of the estimate (**table 19**).

## Requirement Status

Institutions were asked whether remedial courses for students needing **remediation** were most frequently **required**, recommended but not **required**, or **voluntary**. At least **50** percent of institutions offering remedial courses **in fall 1989** most frequently required students needing **remediation** to take remedial courses (**table 7**). Such courses were voluntary at only **2 to 3** percent of **institutions**. At the remainder of **institutions**, remedial courses were recommended but not **required**. Remedial writing was required by **68** percent of **institutions**; remedial **mathematics**, by **63** percent; and remedial **reading**, by **54** percent (**figure 2**).

Requiring remedial courses was more common at **4-year** colleges than **2-year colleges**. For **example**, **74** percent of **4-year** colleges required students needing **remediation** in mathematics to take a remedial mathematics **course**, while **51** percent of **2-year** colleges did **so**. In **contrast**, recommending but not requiring remedial courses occurred more frequently in **2-year** than **4-year colleges**. For **example**, taking remedial mathematics courses was recommended by **48** percent of **2-year** colleges and **23 percent\*** of **4-year colleges**.

## Entering and Exiting Remedial Courses

**The** survey asked institutions whether or not they used placement tests to select participants for remedial courses in **fall 1989**. **Ninety-four** percent of colleges used placement tests for remedial **writing**, **93** percent for **mathematics**, and **88** percent for reading (**table 8**). The proportion of colleges and universities using placement **tests** was consistently high at **all** types of **schools**.

Institutions also noted whether or not they based remedial-course exit skills on regular academic-course entry **skills**. About **80** percent of institutions reported doing so **in fall 1989--86** percent **in** remedial **mathematics**, **81** percent **in** remedial **writing**, and **70** percent **in** remedial **reading**.

## Taking Regular Academic Courses

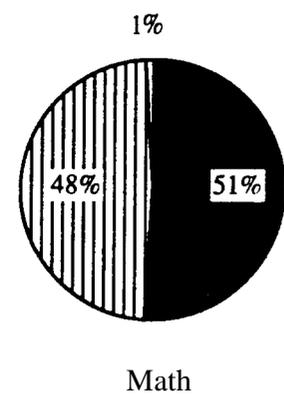
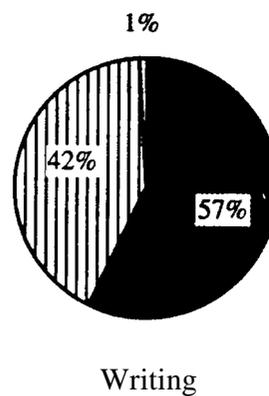
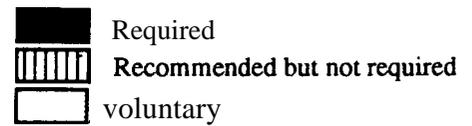
**Some** institutions did not allow students to take regular academic courses until they had completed their remedial **courses**. Others permitted students in remedial courses to take any regular academic **course**. Still other institutions **limited** students in remedial courses to some regular academic **courses**. A student in remedial **mathematics**, for **example**, might not be able to take any regular mathematics **courses**, but could take regular English or history **classes**.

About two-thirds of institutions **in fall 1989** allowed students to take some regular academic courses while taking remedial courses (**table 9**). The percentage with this policy ranged from **69** percent in **mathematics**, to **68** percent in **writing**, to **63** percent in **reading**. Almost no institutions (**1 to 2** percent) entirely prohibited students who were enrolled in remedial courses from taking regular

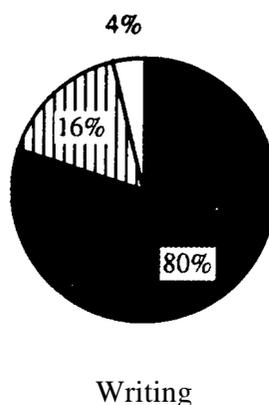
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\*Standard error is greater than or equal to 10 percent of the estimate (**table 19**).

Figure 2.-- Percentage of 2-year and 4-year institutions with certain requirement status for remedial courses in reading, writing, and math: United States, 1989-90



**2-year institutions**



**4-year institutions**

Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

academic **courses**. **The remaining** one-third of institutions let students take **any regular** academic course while taking remedial **courses**.

Public colleges were more likely than private colleges to let students take some regular **academic** courses while taking remedial **courses**. These differences were statistically **significant** in remedial **reading**: **69** percent of public institutions let students take some regular academic course while taking remedial **courses**; the corresponding figure for private institutions was **49 percent\***.

## Providers of Remedial Education

**The survey** collected information on which administrative unit of the institution most frequently provides remedial/developmental **education**: separate remedial **division/department**, traditional academic **departments**, counseling/tutoring **center**, learning **center**, or other **area**. The traditional academic department was the most frequent provider of remedial **education**, with **69** percent of institutions offering remedial **mathematics**, **65** percent remedial **writing**, and **51** percent remedial reading **in the** respective academic department (**table 10**). **However, 26 percent\*** of all institutions reported separate remedial departments or divisions in fall **1989** as the most frequent provider of remedial **reading**, **20 percent\*** for remedial **writing**, and **19 percent\*** for remedial **mathematics**.

## Evaluating Remedial Programs

**The survey** asked institutions to rank in importance the principal types of evaluation they conduct of remedial **programs**. Institutions selected from a list consisting of the **following**:

- Student evaluation of course or **program**;
- Instructor evaluation of course or **program**;
- Student completion rate or grade for course or **program**;
- **Followup** studies of grades at the next level of **courses**;
- Other **followup** studies of **students'** academic **performance**; and
- Other **evaluations**.

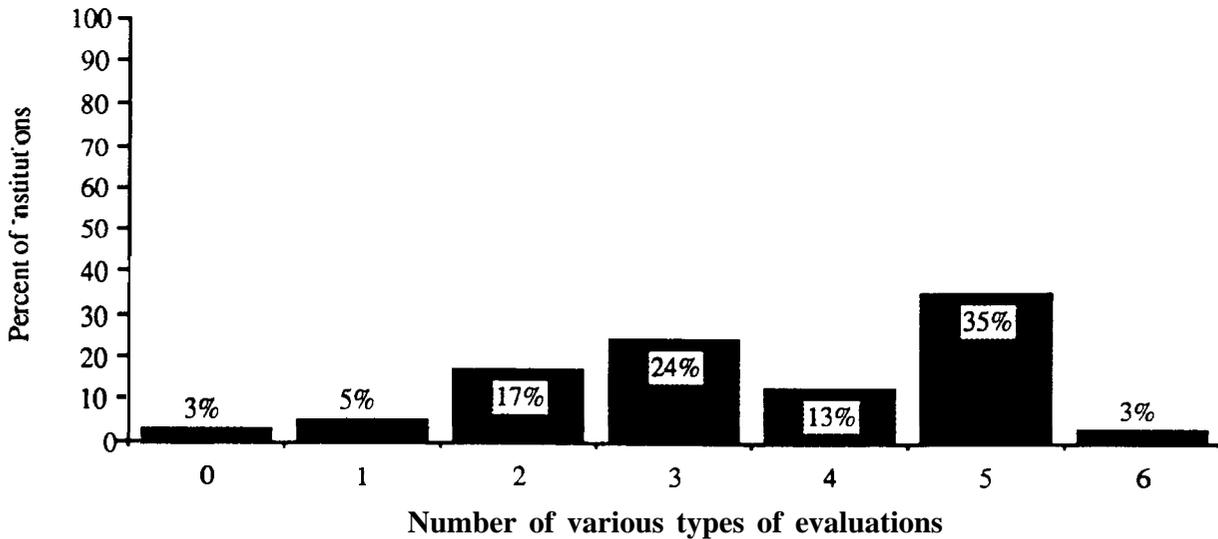
Institutions ranked only those evaluations which they **conducted**.

Almost all institutions conducted evaluations of remedial **programs**. Half of them used four or more different types of evaluations (**figure 3**). Student evaluations (**80** percent of **institutions**), instructor evaluations (**78** percent), and student completion rates (**78** percent) were the most prevalent types of evaluation conducted (**figure 4**). **Followup** studies of grades and other **followup** studies were conducted by **65** and **54** percent **respectively**. Other types of

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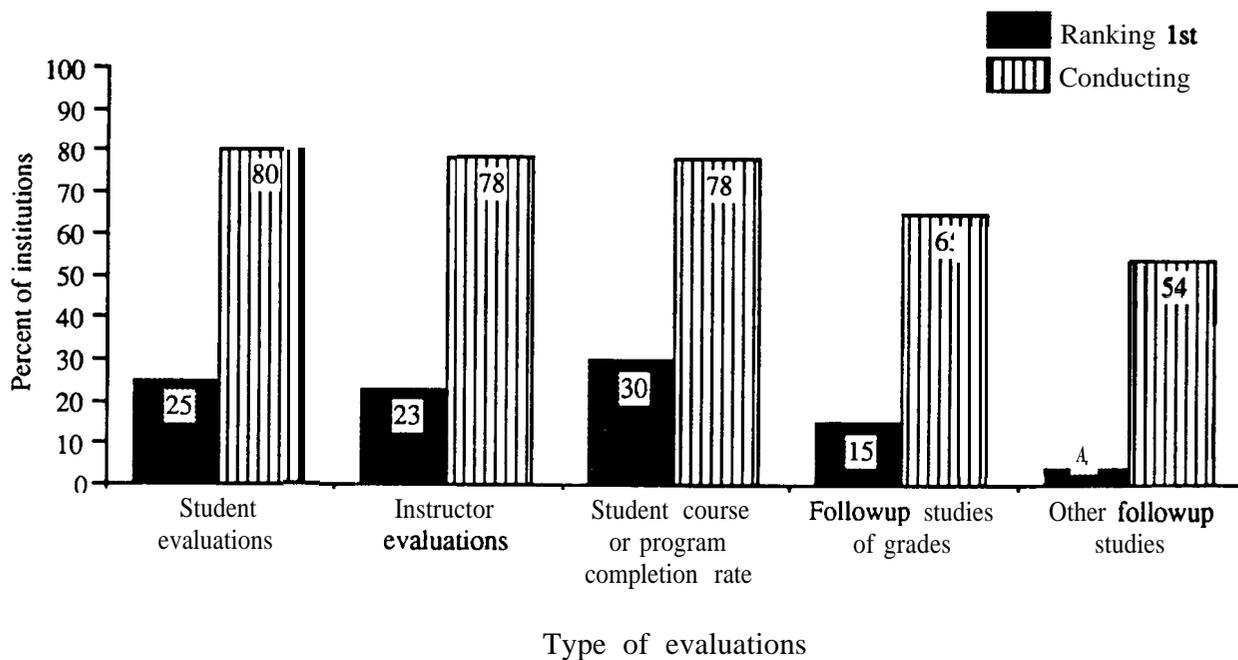
\*Standard error is greater than or equal to **10** percent of the estimate (**table 19**).

Figure 3. -- Percentage of institutions conducting different numbers of various types of evaluations of remedial programs: United States, 1989-90



Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Figure 4.-- Percentage of institutions conducting and rating first in importance certain types of evaluations of remedial programs: United States, 1989-90



Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

## Maintaining Records of Student Retention and Graduation Rates

evaluations were conducted by **6 percent** of **institutions**. These included **pre-** and **post-testing**, as well as various other assessments of **students**.

Thirty **percent\*** of institutions viewed studies of student completion rates for remedial courses or programs as the most **important** type of evaluation conducted (**table 11**). Student and **instructor** evaluations were ranked first by **25 percent\*** and **23 percent\***, respectively.

**One** goal of the study was to compare retention rates to the second year for students enrolled in remedial courses with those for **all freshmen**. Too few institutions maintain these **records, however**, to provide **valid** national **estimates**. The item **nonresponse** rates for the percentage of all **1988-89** full-time entering freshmen who continued at an institution to the start of the second year was **27 percent**. The **nonresponse** rate for the parallel item for freshmen who had enrolled in at least one remedial course was **47 percent**. The **nonresponse** rates increased when institutions were asked to report these figures by racial/ethnic group--to about **51 percent** for all **freshmen**, and to approximately **66 percent** for freshmen who enrolled in at least one remedial **course**.

Seventy-seven percent of institutions **in fall 1989** maintained **baccalaureate-degree** graduation rates for all **freshmen**, but **only 40 percent** maintained the rates by racial/ethnic group (**table 12**). Even fewer institutions **could** report baccalaureate-degree graduation rates for freshmen who had enrolled in at least one remedial **course**:

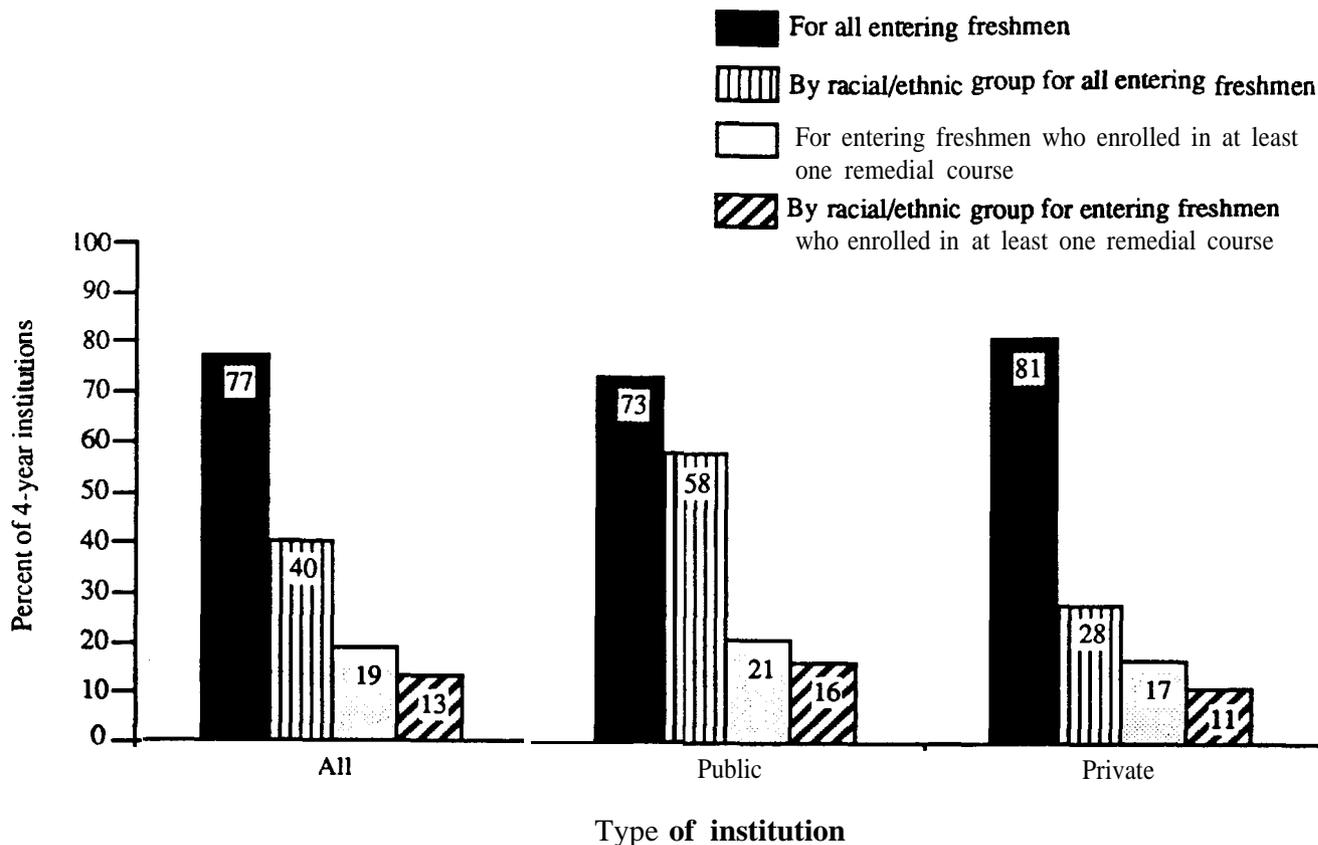
- Eighty-one **percent\*** of institutions do not maintain these data for freshmen who enrolled in at least one remedial **course**; and
- **Eighty-seven\*** percent of institutions do not maintain these data by racial/ethnic group for freshmen who enrolled in at least one remedial **course**.

The percentage of institutions maintaining graduation rates for students who had enrolled in at least one remedial course was uniformly low at **all** types of institutions (**figure 5**).

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● Standard error is greater than or **equal** to 10 percent of the estimate (**table 19**).

Figure 5.-- Percentage of 4-year institutions maintaining baccalaureate degree graduation rates for certain types of freshmen: United States, 1989-90

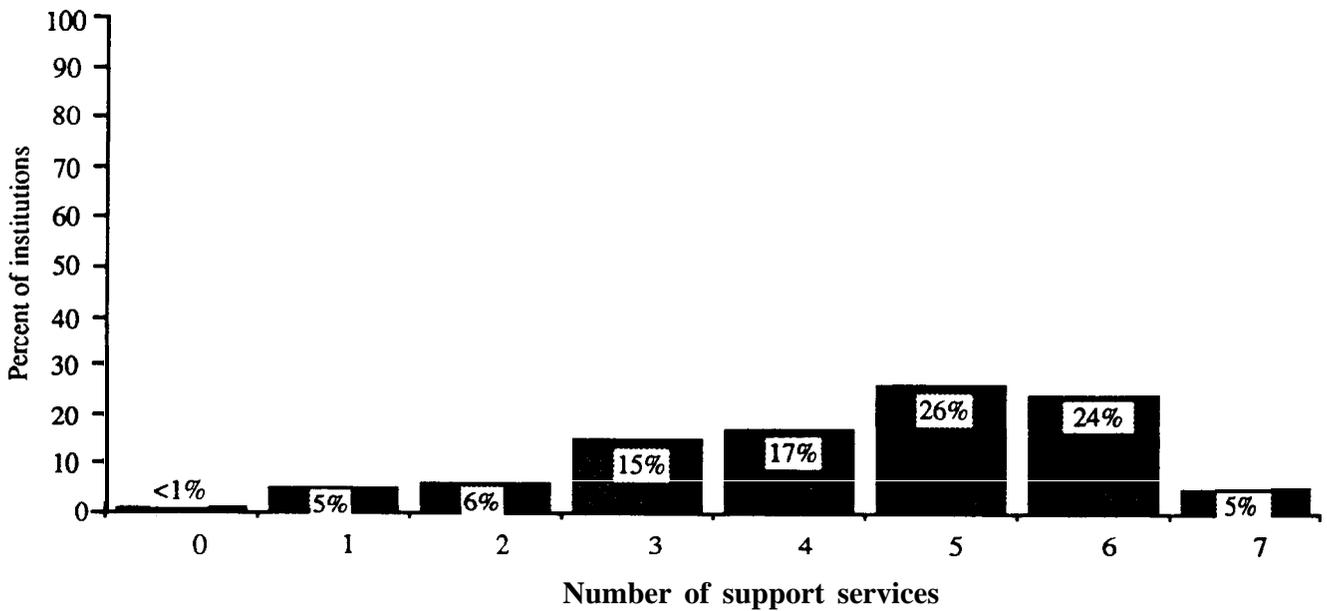


Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

### Academic support Services

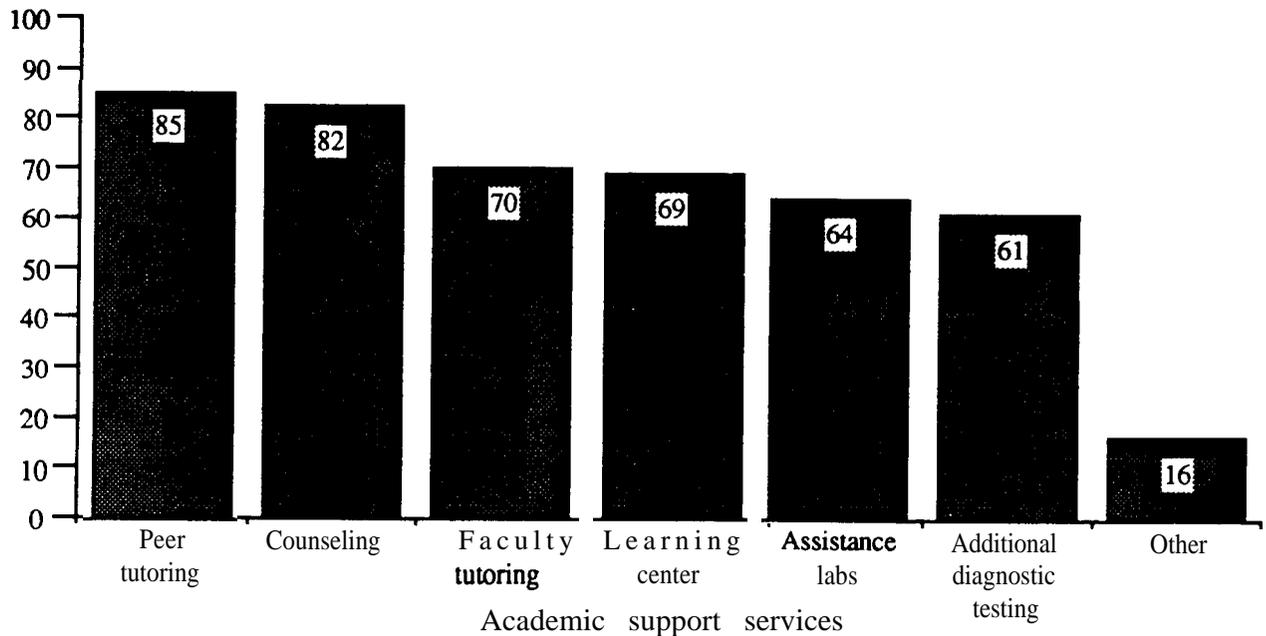
Institutions were asked to choose from a list of support services which ones they provide specifically for students needing remedial education. The list contained the following peer tutoring, faculty tutoring, additional diagnostic testing, counseling, assistance laboratories, learning center, and other services. In fall 1989, nearly all colleges provided academic support services specifically for students needing remediation. More than half provided five or more services (figure 6); peer tutoring (85 percent) and counseling (82 percent) were the most frequently offered. Over 60 percent of colleges provided faculty tutoring, learning center, assistance labs, or additional diagnostic testing (figure 7).

Figure 6. -- percentage of institutions providing different numbers of academic support services specifically for students needing remediation: United States, 1989-90



Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Figure 7.-- Percentage of institutions providing certain academic support services specifically for students needing remediation: United States, 1989-90



Source: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

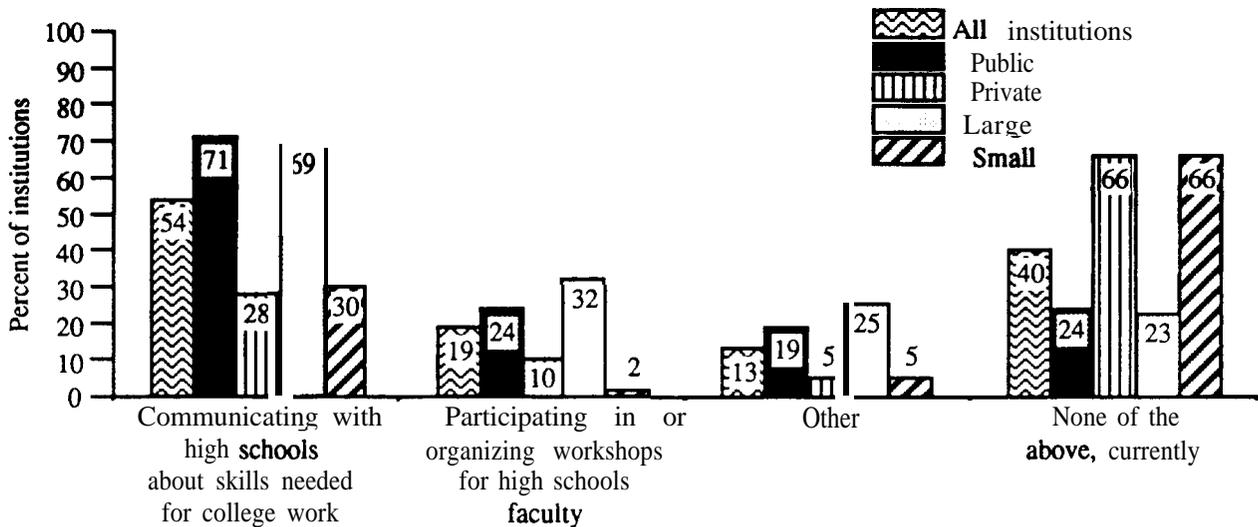
Public and medium or large institutions were more likely than private and small institutions to offer most of the academic support services (table 13). Differences were statistically **significant** for assistance **laboratories**, learning **centers**, additional diagnostic **testing**, and **counseling**. For **example**, **78** percent of public colleges provided a learning **center**; **76** percent, assistance **labs**; and **68** percent, additional diagnostic **testing**; while **54** percent of private colleges provided a learning **center**; **44** percent\*, assistance **labs**; and **49** percent\*, additional diagnostic **testing**.

Sixteen **percent**\* of institutions provided other types of support **services**, such as text **taping**, word **processing**, computer **assistance**, study skills **workshops**, and supplemental **instruction**.

### Reducing the Need for Remedial Education

Institutions reported on the activities they were engaged in to reduce the need for remedial **education**: communicating with high schools about skills needed for college **work**, participating **in** or organizing workshops for high school **faculty**, or other **activities**. **Communicating** with high schools about skills needed for college work was the most typical institutional activity in fall 1989, with over half of institutions participating **in** it (table 14). Public (**71** percent) and large institutions (**69** percent) were more likely than private (**28** percent\*) and small institutions (**30** percent\*) to communicate with high schools (figure 8).

Figure 8.-- Percentage of institutions **engaging** in certain activities to reduce the **need** for remedial education: United States, 1989-90



### Activities to reduce the need for remedial education

Source: Fast Response **Survey** System, College-Level Remedial Education in the Fall of 1989, FRSS38, U.S. Department of Education, National Center for Education **Statistics**, 1991 (survey conducted in 1990).

\*Standard error is greater than or equal to 10 percent of the estimate (table 19).

## Changes Since the 1983-84 Academic Year

Nearly **one-fifth\*** of institutions participated in organized workshops for high school faculty. **Thirteen percent\*** engaged in other activities, such as **providing programs** for high school students or raising admission **standards**. Forty percent of institutions offering remedial courses **did not** engage in any activity to reduce the need for remedial education.<sup>10</sup>

**Some** of the items on this survey were also included in an **FRSS survey** of remedial education in higher education institutions conducted in 1983-84. To **determine** what **changes** have occurred over the last **6 years**, items from the 1989-90 survey were compared with items **from** the 1983-84 survey that were asked in the same or **similar manner**. The 1983-84 survey asked for the "**Number** of separate courses (**Do not count** courses repeated in more than one semester or multiple sections of the same course more than **once**)."  
The 1989-90 survey asked, "**What** is the number of **remedial/developmental** courses with different catalog numbers in **fall 1989?** (**Do not count** multiple sections of the same **course**.)"

The 1983-84 survey found that **82 percent** of institutions offered remedial courses in **reading, writing, or mathematics**.<sup>11</sup> The 1989-90 survey found the number of institutions offering remedial courses decreased to **74 percent**. To substantiate this **8 percent decrease**, institutions that participated in both studies were compared (**slightly more than one-fifth** of the institutions in the 1989-90 survey were also in the 1983-84 survey). **Overall**, of institutions that had participated in both **samples**, **7 percent** fewer offered remedial courses in 1989-90 than in 1983-84.

A downward trend also appeared in the percentage of **4-year** institutions offering one or more remedial course in **reading, writing, or mathematics** from 1983-84 (**78 percent**) to 1989-90 (**64 percent**; table 15).

This trend reappears in both remedial reading and remedial writing at **4-year institutions**:

- In remedial **reading**, 53 percent in 1983-84 versus **41 percent** in 1989-90; and

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<sup>10</sup>Percentages add to more than 100 because institutions may engage in multiple activities to reduce the need for remedial education.

<sup>11</sup>In the previous survey, standard errors were calculated only on selected items. To determine the standard errors for the remaining items, the ratios of the known standard errors from the 1983-84 survey over the corresponding standard errors from the 1989-90 survey were computed. Then the average of the ratios based on standard errors for all institutions was calculated, as was the average of the ratios based on standard errors for subsets (e.g., public, private, 2-year, 4-year, large, small) of all institutions. In the former, 1983-84 standard errors were 95 percent of 1989-90 standard errors (based on the average of 5 ratios); in the latter, 1983-84 standard errors were 63 percent of 1989-90 standard errors (based on the average of 4 ratios and ignoring 1 outlier).

\*Standard error is greater than or equal to 10 percent of the estimate (table 19).

- 
- In remedial **writing**, 69 percent in 1983-84 versus 53 percent in 1989-90.

**The decrease in** the percentage of institutions offering remedial courses was accompanied by a decrease in freshman enrollment **in remedial courses**. In remedial writing and remedial mathematics **courses**, this decrease was found for **all, public, 4-year, and large institutions**. In remedial **reading courses**, the decrease in freshman enrollment was found only in public and large institutions (**table 16**). For **example**, at large institutions freshman **enrollment in** remedial reading fell from 16 percent in 1983-84 to 11 percent\* in 1989-90.

While participation in remedial courses **may be decreasing**, academic support services appear to be on the **rise**. For **example**, the number of colleges offering support services **specifically** for students needing **remediation** increased from 90 percent to nearly 100 percent.

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\*Standard error is greater than or equal to 10 percent of the estimate (**table 19**).

## Survey Methodology and Reliability

The population of **interest** for this survey was institutions of higher education (**IHEs**) that serve freshmen and are accredited at the college-level by an association or agency recognized by the Secretary of **Education**. A **national** probability sample of **546 IHEs** was selected from a universe of **3,283** colleges and **universities**. The sampling frame used for the survey was the universe file of the Higher Education General Information System (**HEGIS**) Fall **Enrollment** and Compliance Report of Institutions of Higher Education of **1983-84**. Of the total initial sample of **546 institutions**, **47** were determined to be out of **scope**, mainly because they did not have **freshmen**. The weighted total from the **473** responding institutions in the sample (out of the **499** eligible **institutions**) is **2,874**, representing all colleges and universities with freshmen (**table 17**). The weighted total from the institutions able to report remedial figures was somewhat lower (**table 18**) (see discussion of item **nonresponse** rates **below**).

Questionnaires (**copy included**) were mailed in late **April 1990**. The questionnaire and cover letter addressed to an experienced **survey** coordinator at the institution requested that the questionnaire be completed by the person at the institution most knowledgeable about **remedial/** developmental **studies**. Data collection and **followup** efforts continued through **mid-July**. An overall response rate of **95** percent was obtained from the eligible **institutions**.

The universe was **stratified** by type of **control**, type of **institution**, and enrollment **size**. Within **strata**, schools were selected at **uniform rates**, but the sampling rates varied considerably from stratum to **stratum**. The response data were weighted to produce national estimates and a weight adjustment was made to account for survey **nonresponse**. The weights were calculated for each institution inversely proportional to its square root of **size**. **These** weights ranged from **1.9636** to **24.2000**. The findings in this report are estimates based on the sample selected **and, consequently**, are subject to sampling **variability**. If the questionnaire had been sent to a different **sample**, the responses would not have been **identical**; some figures might have been **higher**, while others might have been **lower**.

The standard error is a measure of the variability due to sampling when estimating **statistics**. It indicates the variability in the population of possible **estimates** of a parameter for a given sample **size**. Standard errors can be used as a measure of the precision expected from a particular **sample**. If all possible samples were surveyed under similar **conditions**, intervals of 1.96 standard errors below to 1.96 standard errors above a particular statistic would include the true population parameter being estimated in about **95** percent of the **samples**. This is a **95** percent confidence **interval**. For **example**, the estimated percentage of freshmen enrolled in remedial mathematics courses at public institutions in **fall 1989** is **21 percent**, and the estimated standard error is **1.0**. The 95 percent confidence interval for the statistic extends from **21 - (1.0 times 1.96)** to **21 + (1.0 times 1.96)**, or from **19 to 23 percent**. This means that one can be confident that this interval contains the true population parameter **95** percent of the **time**.

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Estimates of standard errors were computed using a replication technique known as jackknife **replication**. The estimated standard errors for some key statistics are shown in table 19. In some **cases**, estimates of standard errors were relatively large because statistics were based on a small number of **cases**. This was **true**, for **example**, for schools designated as minority status (**those** with a student body less than **50** percent **white**). Standard errors for statistics not included **in** this table can be obtained from **NCES** upon **request**.

For categorical **data**, relationships between variables with **2** or more levels have been tested using **chi-square** tests at the **.05** level of **significance**, adjusted for average design **effect**. If the overall **chi-square** test was **significant**, it was followed up with pair-wise tests using a **Bonferroni *t* statistic**, which maintained an overall **95** percent confidence level or **better**.

Survey **estimates** are also subject to errors of reporting and errors made **in** the collection of the **data**. These **nonsampling** errors can **sometimes** bias the **data**. **While** general sampling theory can be used to determine how to **estimate** the sampling variability of a **statistic**, **nonsampling** errors are not easy to measure and usually require that an experiment be conducted as part of the data collection procedures or the use of data external to the **study**.

**Nonsampling** errors may include such problems as differences **in** the **respondents'** interpretation of the meaning of the **questions**, differences related to the particular time the **survey** was **conducted**, or errors in data **preparation**. During the design of the survey and **survey pretest**, an effort was made to check for consistency of interpretation of questions and to eliminate ambiguous **items**. The **questionnaire** was pretested with respondents like those who completed the **survey**, and the questionnaire and instructions were extensively reviewed by the National Center for Education Statistics (**NCES**) and a panel of specialists in remedial/developmental **studies**. Manual and machine editing of the questionnaires was conducted to check the data for accuracy and **consistency**. Cases with missing or inconsistent items were recontacted by **telephone**; data were keyed with **100** percent **verification**.

Data are presented for **all** institutions and by the following institutional **characteristics**: type (**2-year** and **4-year**), control (**public** and **private**), geographic region (**Northeast**, **Central**, **Southeast**, and **West**), enrollment size (**less than 1,000 undergraduates**, **1,000 to 4,999 undergraduates**, and **5,000 or more undergraduates**), minority status (**less than 50 percent white**, and greater than or equal to **50 percent white**). Some data on the percentage of institutions offering remedial courses are also presented by selectivity ratings (**most difficult**, **very difficult**, **moderately difficult**, **minimally difficult**, and **noncompetitive**).

Region classifications are those used by the **Bureau** of Economic Analysis of the **U.S.** Department of **Commerce**, the National Assessment of Educational **Progress**, and the National Education **Association**. The Northeast includes **Connecticut**, **Delaware**, the District of **Columbia**, **Maine**, **Maryland**, **Massachusetts**, **New**

Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The Central region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The Southeast includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The West includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

Item nonresponse rates varied. Nonresponse rates for items discussed in the "Characteristics of Remedial Courses and Programs" (pages 7-15) ranged from 0.0 percent to 0.6 percent. Nonresponse rates for items on the number of teachers of remedial courses were slightly higher, ranging from 3.9 percent to 7.2 percent. As mentioned previously, the nonresponse rates for freshman enrollment and passing items were considerably higher, as some institutions were unable to provide these figures and were reluctant to give estimates. Therefore, imputations were made for the following missing freshman enrollment and passing rates:

Items requiring imputations	Number of cases imputed
Percent enrolled in remedial reading courses .....	55
Percent enrolled in remedial writing courses .....	61
Percent enrolled in remedial mathematics courses .....	68
Percent passing remedial reading courses .....	73
Percent passing remedial writing courses.....	79
Percent passing remedial mathematics courses .....	88
Percent enrolled in remedial courses in reading, writing, or mathematics .....	78

Imputations for the first six items were done initially. Of the 473 responding institutions, 361 offered at least one remedial program. Of these 361 schools, item imputations rates for the six items ranged from 15.2 percent to 24.4 percent.

The 94 schools requiring imputation were first broken into three classes: 52 schools needed all six variables imputed; 14 needed all three passing rates imputed, but none of the enrollment rates; and 28 needed some other combination of variables imputed. In order to minimize the impact of imputation on both averages and variances, a hot-deck imputation procedure was used, respecting the sampling stratification wherever possible. Hot-deck imputation selects a donor value from another institution with similar characteristics to use as the imputed value. Thus, the institutions were sorted by strata and within strata by total school size before beginning imputation.

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Imputations were then done for the **66** schools that needed **imputation** for **all** three passing rates (**and possibly all three enrollment rates**). A single donor institution was **selected** for **all** missing data for a given **institution**, if it was the institution immediately preceding the one needing **imputation**, and if it contained values for all six **variables**. Minimizing the number of **times** a single institution is used as a donor **minimizes** the impact on **variance**. **Therefore**, if an institution had **already** been used as a **donor**, the preceding eligible institution on the list was **used**. If **all** three of the preceding potential donors had already been **used**, a donor institution would be used a second **time**. This kept the donor institution as similar in size to the imputed institution as **possible**.

For **12** of the remaining **28** cases needing **imputation**, some of the enrollment (**and/or passing**) data were **reported**. For these **cases**, the missing data were imputed from the other data reported by the same **institution**. For **example**, if the institution reported that **30** percent of its students were enrolled in remedial reading classes and **40** percent enrolled in remedial **mathematics**, but did not report the percent for **writing**, the **average, 35 percent**, was **imputed** for remedial **writing**.

This left **16** institutions needing **imputation** for one or two enrollment (**and/or passing**) variables where no data were reported for the other **subjects**. (**In addition**, one institution had one missing and one reported **enrollment** variable and two missing passing **variables**. The enrollment imputation followed the procedure outlined in the previous **paragraph**, and the passing variables were imputed as described in this **paragraph**. **Thus, 17** rather than **16** schools were in this **category**.) These were imputed using the same hot-deck procedure described **earlier**.

As a **result** of the above **procedures**, three institutions were each used as donors three times and seven other institutions were each used **twice**.

The **imputed** values had a small and statistically insignificant impact on the **estimated** overall average percentage of students enrolled in or passing remedial **classes**. Comparing the **pre-imputation** averages with those after imputation shows that including **imputed** values raised the percentage enrolled by **1.4** percent for reading and **writing**, and **2.2** percent for **mathematics**. It lowered the passing rates by **0.4** percent for reading and **0.2** percent for **mathematics**, while raising the rate by **0.4** percent for **writing**.

Imputations for the last item--total percentage of freshmen enrolled in one or more remedial courses in **reading, writing, or mathematics**--were restricted by the values for the percentage enrolled in each of the individual subjects (**remedial reading, writing, and mathematics**). The minimum value for the total **unduplicated** percentage enrolled in remedial courses equals the largest percentage enrolled in remedial **reading, writing, or mathematics**. The maximum value for the **total, unduplicated** percentage enrolled in remedial courses equals the sum of the percentages enrolled in remedial **reading, writing, or mathematics**.

Because of these **restrictions**, it was decided to impute the midpoint between the **minimum** and **maximum values**.

The **imputed** values for **this item** had a slightly larger but **still** statistically insignificant impact on the estimated overall **average** percentage of students enrolled in one **or** more remedial **courses**. Including **imputed** values raised the percentage enrolled by **4.7 percent**. The appropriateness of using the midpoint as the value to be **imputed** was confirmed by examining those cases where no values were imputed for percentages enrolled in individual remedial subjects or for the **total, unduplicated percentage**. For institutions without any imputations for these **items**, the value of the **total, unduplicated** percentage enrolled was **43** percent of the difference between the minimum value and the **maximum value**.

The survey was performed under contract with **Westat, Inc.**, using the Fast Response Survey System (**FRSS**). **Westat's** Project Director was Elizabeth **Farris**, and the **Survey** Manager was Wendy **Mansfield**. Jeffrey Williams was the **NCES** Project Officer through data collection and **followup efforts**. **Judi** Carpenter was the **NCES** Project Officer during the remainder of the survey (**through** analysis and report **writing**). The data requester was **MacKnight Black**, Education Program **Officer, Postsecondary** Education Statistics **Division**. **FRSS** was designed to collect **quickly**, and with minimal burden on **respondents**, small quantities of data needed for educational planning and **policy**.

## **Acknowledgments**

**The** following consultants assisted with the design of the **survey**:

**Ansley Abraham**, Research **Associate**, Southern Regional Education Board  
**Hunter R. Boylan, Director**, National Center for Developmental **Education**, Appalachian State University  
**Nancy Carriuolo**, Director of the Office of **School/College Relations**, the New England Association of Schools and Colleges  
**Kaylene A. Gebert, 1989-90 President**, National Association for Developmental Education  
**Anthony D. Lutkus, Director**, Basic Skills **Assessment**, Department of Higher **Education**, State of New Jersey  
**Martha Maxwell**, Educational **Consultant**, **Bethesda**, Maryland  
**Arnold L. Mitchem**, Executive **Director**, National **Council** of Educational Opportunity Associations  
**John R. Wittstruck**, Associate Commissioner for Policy Analysis and Data **Services**, Missouri Coordinating Board for Higher Education

Two additional **surveys** on college-level remedial education were resources during survey **design**:

- 1) Survey of **Remedial/Developmental** Studies in Institutions of Higher **Education, FRSS 19, U.S. Department of Education, National Center for Education Statistics, 1984**, and

2) **Survey of Remedial Education in Institutions of Higher Education in the SREB States**, Southern **Regional Education Board**, 1989, by **Ansley Abraham**.

The **FRSS 19** report was published in **1986**. **SREB** will publish the first in a series of reports based on its survey in June **1991**.

The report reviewers were **Ansely Abraham**, Southern Regional Education **Board**; Nancy **Carriuolo**, New England Association of Schools and **Colleges**; John **R. Wittstruck**, Missouri Coordinating Board for Higher **Education**; and **Judi Carpenter**, Michael **Cohen**, **Jim Houser**, **Roslyn Korb**, and John **Sietsema**, National Center for Education **Statistics**.

For more information about the Fast Response **Survey System**, contact **Judi Carpenter**, **Office** of Educational Research and **Improvement**, National Center for Education **Statistics**, 555 New Jersey **Avenue, NW**, **Washington, DC 20208-5651**, telephone **(202) 219-1333**. For more **information** about this **survey**, contact **MacKnight Black** at the same **address**, telephone **(202) 219-1594**.

Table 1. -- Percentage of **institutions of higher education offering remedial** courses and average **number** of courses offered **in remedial reading, writing, and math**, by institutional **characteristics**: United States, 1989-90

Institutional characteristic	Institutions					Average number of courses offered		
	Number with freshmen	Percent offering one or more remedial courses				Reading	Writing	Math
		Reading, writing, or math	Reading	Writing	Math			
All institutions.....	2,874	74	58	65	68	1.9	1.9	2.3
<b>Control</b>								
Public.....	1,420	91	82	87	89	2.5	2.4	3.0
Private.....	1,454	58	34	44	47	1.0	1.0	1.3
<b>Type</b>								
2-year.....	1,150	90	82	84	84	2.8	2.5	3.0
4-year.....	1,724	64	41	53	57	1.1	1.2	1.7
<b>Selectivity</b>								
Most difficult.....	46	27	18	22	18	(*)	(*)	(*)
Very difficult.....	180	32	17	24	27	(*)	(*)	(*)
Moderately difficult.....	1,072	62	40	53	55	1.2	1.2	1.6
Minimally difficult.....	486	73	44	55	62	1.1	1.3	1.4
Noncompetitive.....	1,091	96	89	90	91	2.7	2.5	3.1
<b>Region</b>								
Northeast.....	759	67	48	59	61	1.5	1.7	1.9
Central.....	825	82	62	70	74	1.8	1.8	2.2
Southeast.....	658	73	60	62	65	1.5	1.4	1.9
West.....	632	74	60	69	71	3.0	2.6	3.4
<b>Size of institution</b>								
Less than 1,000.....	918	60	35	47	48	0.9	1.0	1.2
1,000 to 4,999.....	1,214	78	64	69	75	1.8	1.9	2.3
5,000 or more.....	742	87	76	81	81	2.9	2.5	3.4
<b>Minority status</b>								
Minority.....	440	74	67	57	69	2.0	1.7	2.1
Nonminority.....	2,434	74	56	66	68	1.9	1.9	2.4

● Too few cases for a reliable estimate.

NOTE Because of **rounding**, number of institutions with freshmen may not add to **total**.

SOURCE Fast Response Survey System, **College-Level Remedial Education in the Fall of 1989, FRSS 38**, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 2. -- Percentage of institutions unable to provide remedial-course **enrollment data** for **all** freshmen or for freshmen by racial/ethnic **group**, by institutional **characteristics**: United States, 1989-90

Institutional characteristic	Institutions unable to provide remedial course enrollment data for all freshmen			Institutions able to provide remedial course enrollment data for all freshmen but not for racial/ethnic groups		
	Reading	Writing	Math	Reading	Writing	Math
All institutions.....	18	16	18	32	29	31
<b>Control</b>						
Public.....	22	21	22	29	33	33
Private.....	6	5	12	36	24	28
<b>Type</b>						
2-year.....	20	20	23	36	36	36
4-year.....	14	12	13	27	23	26
<b>Region</b>						
Northeast.....	22	15	23	42	30	38
Central.....	16	15	16	34	28	32
Southeast.....	4	5	4	24	30	25
West.....	30	28	29	29	30	29
<b>Size of institution</b>						
Less than 1,000.....	4	2	13	38	23	28
1,000 to 4,999.....	14	13	12	29	33	32
5,000 or more.....	30	31	31	32	30	32
<b>Minority status</b>						
Minority.....	13	16	17	36	33	30
Nonminority.....	19	16	18	31	29	31

NOTE: Institutions reporting remedial-course enrollment data from institutional records and from estimates were considered able to provide the data.

SOURCE Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 3. -- Percentage of entering freshmen **who enrolled in a remedial reading, writing, or math course** and percentage of those **enrolled who passed**, by institutional characteristics: United States, 1989-90

Institutional characteristic	Number of freshmen (in thousands) in fall '89	Freshmen enrolled in remedial courses				Freshmen passing remedial courses		
		Reading, writing, or math	Reading	Writing	Math	Reading	Writing	Math
All institutions.....	2,242	30	13	16	21	77	73	67
<b>Control</b>								
Public.....	1,784	32	13	17	23	74	71	65
Private.....	457	22	12	11	12	86	83	80
<b>Type</b>								
2-year.....	1,069	36	16	20	26	73	70	65
4-year.....	1,173	24	9	12	15	82	77	69
<b>Region</b>								
Northeast.....	520	33	13	18	20	77	73	69
Central.....	670	23	10	13	19	73	72	65
southeast.....	418	31	16	14	23	83	74	68
west.....	634	34	13	17	22	74	72	65
<b>Size of institution</b>								
Less than 1,000.....	109	26	9	15	18	84	81	79
1,000 to 4,999.....	650	33	16	17	22	79	74	69
5,000 or more.....	1,483	29	11	15	20	76	71	65
<b>Minority status</b>								
Minority.....	207	55	32	28	35	78	67	63
Nonminority.....	2,035	27	11	14	19	76	74	67

NOTE: Because of rounding, number of freshmen may not add to total.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 4. -- Percentage of institutions unable to provide remedial-course passing rates for **all** freshmen or for **freshmen** by racial/ethnic group, by institutional characteristics: United States, 1989-90

Institutional characteristic	Institutions unable to provide remedial-course passing rates for all freshmen			Institutions able to provide remedial-course passing rates for all freshmen but not for racial/ethnic groups		
	Reading	Writing	Math	Reading	Writing	Math
All institutions.....	26	23	25	36	37	40
<b>Control</b>						
Public.....	32	30	31	34	36	37
Private.....	11	8	14	41	38	46
<b>Type</b>						
2-year.....	30	30	32	39	40	40
4-year.....	19	16	18	34	35	40
<b>Region</b>						
Northeast.....	32	24	33	48	35	48
Central.....	20	22	24	37	38	46
Southeast.....	12	10	9	27	33	28
West.....	41	34	35	38	43	41
<b>Size of institution</b>						
Less than 1,000.....	8	5	13	43	36	43
1,000 to 4,999.....	22	20	20	35	42	44
5,000 or more.....	41	39	41	33	29	30
<b>Minority status</b>						
Minority.....	22	23	26	38	41	35
Nonminority.....	26	23	25	36	36	41

NOTE: Institutions reporting remedial-course passing rates from institutional records and from estimates were considered able to provide the data.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 5.-- Average number of persons teaching one or more remedial course **in fall 1989**, by institutional characteristics: United States, 1989-90

Institutional characteristic	Teaching remedial courses	Specifically hired for this purpose	With degree credentials specific to remedial education	Given specific training by the institution
All institutions .....	14.9	8.2	3.4	5.8
Control				
Public .....	21.9	12.4	5.0	9.3
Private .....	4.7	2.1	1.1	0.9
Type				
2-year .....	20.2	11.5	4.6	8.5
4-year .....	10.1	5.2	2.3	3.4
Region				
Northeast .....	16.4	8.5	4.6	6.0
Central .....	11.6	7.3	2.1	5.3
Southeast .....	13.3	7.2	2.9	3.8
west .....	19.9	10.3	4.4	8.6
Size of institution				
Less than 1,000 .....	3.0	1.2	0.7	0.6
1,000 to 4,999 .....	10.4	4.7	2.0	3.3
5,000 or more .....	33.2	20.4	8.6	15.3
Minority status				
Minority .....	16.6	9.4	4.7	7.6
Nonminority .....	14.6	8.0	3.1	5.5

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 6. Percentage of institutions with most frequent form of credit given for remedial courses in reading, writing, and math, by institutional characteristics: United States, 1989-90

Institutional characteristic	Reading				Writing				Math			
	No formal credit	Institutional credit	Degree credit, elective	Degree credit, subject	No formal credit	Institutional credit	Degree credit, elective	Degree credit, subject	No formal credit	Institutional credit	Degree credit, elective	Degree credit, subject
All institutions .....	12	66	19	2	10	67	18	5	11	69	15	5
<b>Control</b>												
Public .....	10	76	13	1	10	78	11	1	9	79	9	3
Private.....	18	43	35	4	11	45	31	13	13	51	27	9
<b>Type</b>												
2-year.....	10	76	14	1	12	78	10	1	9	79	10	3
4-year.....	16	54	27	3	9	55	26	10	13	60	20	7
<b>Region</b>												
Northeast .....	28	39	32	2	22	43	23	12	17	49	20	14
Central.....	8	64	24	3	6	62	28	5	11	66	19	4
Southeast .....	7	83	11	0	5	86	7	2	5	87	8	0
West.....	9	79	10	2	10	79	8	2	9	77	11	3
<b>Size of institution</b>												
Less than 1,000.....	8	59	34	0	6	62	23	9	9	66	17	9
1,000 to 4,999.....	15	71	13	2	11	70	15	4	9	73	16	3
5,000 or more.....	12	65	20	3	12	66	18	4	15	66	13	6
<b>Minority status</b>												
Minority .....	19	68	13	0	13	66	21	0	7	73	18	3
Nonminority.....	11	66	21	2	10	67	17	6	12	68	15	6

NOTE: Because of rounding percents may not add to 100.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 7. -- Percentage of **institutions** with most frequent requirement status for remedial courses in **reading, writing, and math**, by institutional **characteristics: United States, 1989-90**

Institutional characteristic	Requirement status								
	Reading			Writing			Math		
	Required	Recommended but not required	Voluntary	Required	Recommended but not required	Voluntary	Required	Recommended but not required	Voluntary
All institutions.....	54	43	3	68	29	2	63	35	2
<b>Control</b>									
Public.....	48	49	3	63	35	1	57	42	2
Private.....	66	31	3	78	18	4	74	24	2
<b>Type</b>									
2-year.....	45	54	1	57	42	1	51	48	1
4-year.....	65	29	6	80	16	4	74	23	3
<b>Region</b>									
Northeast.....	71	25	4	82	12	6	70	25	5
Central.....	42	54	5	64	34	2	60	39	1
Southeast.....	69	29	2	80	20	0	76	23	(*)
West.....	37	61	2	50	48	1	47	53	(*)
<b>Size of institution</b>									
Less than 1,000.....	57	43	0	75	23	2	75	23	2
1,000 to 4,999.....	56	43	2	66	32	2	60	38	2
5,000 or more.....	49	44	7	67	30	3	58	40	2
<b>Minority status</b>									
Minority.....	46	54	0	61	39	0	62	37	1
Nonminority.....	55	41	4	70	28	3	63	35	2

\* = Less than 0.5 percent.

NOTE: Because of rounding, percents may not add to 100.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 8. -- Percentage of **institutions** using placement tests to **select** participants for remedial courses and percentage basing remedial-course exit skills on regular academic-course entry skills **in reading, writing, and math**, by institutional **characteristics**: United States, 1989-90

Institutional characteristic	Institutions using placement tests to select participants			Institutions basing remedial-course exit skills on regular academic course entry skills		
	Reading	Writing	Math	Reading	Writing	Math
All institutions.....	88	94	93	70	81	86
<b>Control</b>						
Public.....	92	96	95	72	82	86
Private.....	77	91	89	67	79	85
<b>Type</b>						
2-year.....	96	97	96	75	83	86
4-year.....	78	91	90	64	80	85
<b>Region</b>						
Northeast.....	86	94	90	68	81	85
Midwest.....	80	90	92	58	76	84
Southeast.....	96	99	95	80	86	88
West.....	93	96	95	79	85	86
<b>Size of institution</b>						
Less than 1,000.....	78	94	87	59	78	79
1,000 to 4,999.....	90	95	95	76	81	87
5,000 or more.....	90	92	94	69	84	88
<b>Minority status</b>						
Minority.....	91	100	100	68	85	91
Non-minority.....	87	93	92	70	81	85

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 9.-- Percentage of institutions letting students take any, some, or no regular academic courses while taking remedial courses in reading, writing, and math, by institutional characteristics: United States, 1989-90

Institutional characteristic	Reading			Writing			Math		
	Any regular academic courses	Some regular academic courses	No regular academic courses	Any regular academic courses	Some regular academic courses	No regular academic courses	Any regular academic courses	Some regular academic courses	No regular academic courses
All institutions.....	35	63	2	30	68	2	30	69	1
<b>Control</b>									
Public.....	31	69	1	29	71	(*)	27	73	0
Private.....	45	49	6	32	63	5	37	62	2
<b>Type</b>									
2-year.....	31	69	0	27	72	1	27	71	1
4-year.....	40	56	5	33	64	3	34	66	0
<b>Region</b>									
Northeast.....	29	68	3	38	60	2	37	63	0
Central.....	43	54	2	30	65	4	36	62	2
Southeast.....	29	69	2	19	81	0	16	84	0
West.....	35	65	0	32	68	0	30	70	0
<b>Size of institution</b>									
Less than 1,000.....	46	54	0	26	71	3	33	64	3
1,000 to 4,999.....	30	66	4	30	68	2	29	71	0
5,000 or more.....	35	64	1	33	66	1	30	70	0
<b>Minority status</b>									
Minority.....	25	75	1	22	77	1	19	81	0
Nonminority.....	37	60	2	31	67	2	32	67	1

\* = Less than 0.5 percent.

NOTE: Because of rounding, percents may not add to 100.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 10. -- Percentage of institutions housing most frequent providers of remedial education in **reading, writing, and math** within various administrative **units**, by institutional **characteristics**: United States, 1989-90

Institutional characteristic	Administrative unit														
	Reading					Writing					Math				
	Separate remedial division	Traditional academic department	Counseling/tutoring center	Learning center	Other	separate remedial division	Traditional academic department	Counseling/tutoring center	Learning center	Other	Separate remedial division	Traditional academic department	Counseling/tutoring center	Learning center	Other
All institutions.....	26	51	2	18	3	20	65	1	13	1	19	69	1	11	1
<b>Control</b>															
Public.....	28	53	1	16	2	20	65	(*)	12	0	21	66	(*)	11	1
Private.....	21	47	2	23	6	18	66	2	13	2	15	74	1	11	0
<b>Type</b>															
2-year.....	28	55	1	16	1	23	63	0	14	1	25	64	0	10	1
4-year.....	24	46	3	21	5	16	68	2	12	2	13	74	1	11	1
<b>Region</b>															
Northeast.....	20	59	3	17	0	13	73	3	12	0	11	78	3	9	0
Central.....	26	36	3	29	6	21	54	1	22	2	19	61	0	20	0
Southeast.....	36	50	0	10	3	30	62	0	7	(*)	32	62	0	4	2
West.....	21	65	0	12	2	15	77	0	6	2	15	77	0	6	2
<b>Size of institution</b>															
Less than 1,000.....	24	45	0	23	8	17	67	2	14	0	17	71	0	12	0
1,000 to 4,999.....	22	54	2	19	2	18	63	1	15	1	17	68	1	13	1
5,000 or more.....	32	51	1	13	1	23	67	0	8	2	24	68	0	6	2
<b>Minority status</b>															
Minority.....	33	50	2	5	10	29	61	2	7	0	31	56	2	9	2
Nonminority.....	25	51	1	21	1	18	66	1	13	1	17	71	(*)	11	1

\*= Less than 0.5 percent.

NOTE: Because of rounding, percents may not add to 100.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

**Table 11.** -- Percentage of institutions conducting and **rating** first in importance certain types of evaluations of remedial **programs**, by institutional characteristics: United States, 1989-90

Institutional characteristic	Type of evaluation									
	Student evaluation		Instructor evaluation		Student completion rate		Followup studies of grades		Other followup studies	
	Ranking first	Conducting evaluation	Ranking first	Conducting evaluation	Ranking first	Conducting evaluation	Ranking first	Conducting evaluation	Ranking first	Conducting evaluation
All institutions.....	25	80	23	78	30	78	15	65	4	54
<b>Cent rol</b>										
Public .....	25	80	25	80	31	81	14	68	3	58
Private.....	24	81	21	74	29	73	17	60	6	47
<b>Type</b>										
2-year.....	30	83	28	80	27	80	13	65	2	54
4-year.....	20	78	19	75	32	77	16	64	6	54
<b>Region</b>										
Northeast.....	17	79	36	76	26	78	10	62	7	63
Central .....	25	80	15	78	38	84	18	69	3	58
southeast.....	26	86	17	77	26	79	24	67	1	52
West.....	32	77	29	79	27	70	6	59	4	40
<b>Size of institution</b>										
Less than 1,000.....	29	83	20	79	29	76	14	67	4	47
1,000 to 4,999.....	27	86	23	78	31	79	15	60	3	52
5,000 or more.....	18	71	27	76	29	79	16	70	5	62
<b>Minority status</b>										
Minority.....	15	73	22	81	47	85	11	59	4	58
Nonminority.....	27	82	24	77	27	77	16	66	4	53

\* = Less than 0.5 percent.

**NOTE:** Because of rounding, percents of institutions ranking **first in importance** different types of evaluation may not add to 100. In **addition**, a sixth category of **type of evaluation**--"Other"--was not reported **because** it contained **so few responses**. Some rounded percents may add to fewer than 95 because of this **omission**. Percents of institutions conducting evaluations do not add to 100 **because institutions can** conduct more than one **type of evaluation**.

**SOURCE** Fast Response Survey System, College-Level Remedial Education in the **Fall** of 1989, **FRSS 38**, U.S. Department of **Education**, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 12.--Percentage of 4-year institutions maintaining baccalaureate degree graduation rates for certain types of freshmen, by institutional characteristics: United States, 1989-90

<b>Institutional characteristic</b>	<b>For all entering freshmen</b>	<b>By racial/ethnic group for all entering freshmen</b>	<b>For entering freshmen who enrolled in at least one remedial course</b>	<b>By racial/ethnic group for entering freshmen who enrolled in at least one remedial course</b>
All institutions.....	77	40	19	13
<b>Control</b>				
Public .....	73	58	21	16
Private.....	81	28	17	11
<b>Region</b>				
Northeast .....	82	37	17	7
Central .....	78	39	17	14
Southeast .....	80	51	21	15
west.....	67	33	21	18
<b>Size of institution</b>				
Less than 1,000 .....	85	26	24	11
1,000 to 4,999.....	75	34	17	15
5,000 or more .....	74	61	16	11

NOTE: Minority status is not included in this table because there were too few 4-year institutions for a reliable estimate.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 13.--Percentage of institutions providing **certain academic** support services **specifically** for students needing **remediation**, by institutional **characteristics**: **United States, 1989-90**

Institutional characteristic	Academic support service						
	Peer tutoring	Faculty tutoring	Additional diagnostic testing	Counseling	Assistance labs	Learning center	Other
All institutions.....	85	70	61	82	64	69	16
<b>Control</b>							
Public .....	87	69	68	87	76	78	17
Private.....	82	73	49	75	44	54	14
<b>Type</b>							
2-year.....	83	70	64	87	72	74	17
4-year.....	87	70	58	77	56	64	14
<b>Region</b>							
Northeast .....	85	70	50	86	65	72	16
Central.....	82	65	56	80	55	67	17
southeast.....	84	74	62	77	69	62	11
west.....	90	74	78	87	69	75	17
<b>Size of institution</b>							
Less than 1,000.....	81	79	42	72	38	45	21
1,000 to 4,999.....	85	67	65	86	68	72	12
5,000 or more.....	89	67	71	86	79	85	17
<b>Minority status</b>							
Minority.....	83	72	63	82	66	73	7
Nonminority.....	86	70	60	82	63	68	17

NOTE The "Other" category consists of responses written in by respondents, such as computer assistance and text taping.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 14.--Percentage of institutions engaging in certain activities to reduce the need for remedial education, by institutional characteristics: United States, 1989-90

Institutional characteristic	Activity to reduce need			
	Communicating with high schools about skills needed for college work	Participating in or organizing workshops for high school faculty	Other	None of the above, currently
All institutions.....	54	19	13	40
<b>Control</b>				
Public.....	71	24	19	24
Private.....	28	10	5	66
<b>Type</b>				
2-year.....	62	17	13	34
4-year.....	47	20	14	46
<b>Region</b>				
N o r t h e a s t	46	24	16	42
Central.....	49	16	12	48
S o u t h e a s t	66	17	10	32
west.....	59	18	16	37
<b>Size of institution</b>				
Leas than 1,000.....	30	2	5	66
1,000.....	58	19	10	38
5,000 or more.....	69	32	25	23
<b>Minority status</b>				
Minority.....	56	14	14	42
Nonminority.....	54	19	13	40

NOTE: The "Other" category consists of responses written in by respondents, such as raising admissions standards and providing programs for high school students.

SOURCE Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 15.--Percentage of institutions offering remedial courses in reading, writing, and math, by institutional characteristics: United States, 1983-84 and 1989-90

Institutional characteristic	Remedial courses		Remedial reading		Remedial writing		Remedial math	
	1989-90	1983-84	1989-90	1983-84	1989-90	1983-84	1989-90	1983-84
All institutions.....	74	82	58	66	65	73	68	71
<b>Control</b>								
Public.....	91	94	82	87	87	89	89	88
Private.....	58	70	34	44	44	56	47	53
<b>Type</b>								
2-year.....	90	88	82	80	84	78	84	82
4-year.....	64	78	41	53	53	69	57	61
<b>Size of institution</b>								
Less than 1,000.....	60	69	76	83	47	55	48	50
1,000 to 4,999.....	78	84	64	69	69	78	75	76
5,000 or more.....	87	94	76	83	81	86	81	87

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990), and College Level Remediation, FRSS 19, U.S. Department of Education, National Center for Education Statistics, 1986 (survey conducted in 1984).

I  
 Table 16.--Percentage of freshmen enrolling in remedial courses in reading, writing, and math, by institutional characteristics: United States, 1983-84 and 1989-90

Institutional characteristic	Remedial reading		Remedial writing		Remedial math	
	1989-90	1983-84	1989-90	1983-84	1989-90	1983-84
All institutions.....	13	16	16	21	21	25
<b>Control</b>						
Public.....	13	18	17	22	23	27
Private.....	12	9	11	12	12	15
<b>Type</b>						
2-year.....	16	19	20	23	26	28
4-year.....	9	12	12	17	15	19
<b>Size of institution</b>						
Less than 1,000.....	9	14	15	16	18	19
1,000 to 4,999.....	16	18	17	22	22	26
5,000 or more.....	11	16	15	21	20	25

**SOURCE:** Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990), and College Level Remediation, FRSS 19, U.S. Department of Education, National Center for Education Statistics, 1986 (survey conducted in 1984).

Table 17.--Number and percentage of institutions **included in** the study **sample** and the **universe**, by institutional characteristics: United States, 1989-90

Institutional characteristic	Respondents		Universe*	
	Number	Percent	Number	Percent
<b>All institutions</b> .....	<b>473</b>	<b>100</b>	<b>2,874</b>	<b>100</b>
<b>Control</b>				
Public.....	287	61	1,420	49
Private.....	186	39	1,454	51
<b>Type</b>				
2-year.....	139	29	1,150	40
4-year.....	334	71	1,724	60
<b>Selectivity</b>				
Most difficult .....	15	3	46	2
Very difficult .....	45	10	180	6
Moderately difficult .....	211	45	1,072	37
Minimally difficult .....	59	12	486	17
Noncompetitive .....	143	30	1,091	38
<b>Region</b>				
Northeast.....	130	27	759	26
Central.....	126	27	825	29
southeast .....	102	22	658	23
west.....	115	24	632	22
<b>Size of institution</b>				
Less than 1,000.....	81	17	918	32
1,000 to 4,999.....	164	35	1,214	42
5,000 or more.....	228	48	742	26
<b>Minority status</b>				
Minority.....	61	13	440	15
Nonminority.....	412	87	2,434	85

\*Data presented in all tables are weighted to produce national estimates. The sample was selected with probabilities proportionate to the square root of enrollment. Institutions with larger enrollments have higher probabilities of inclusion and lower weights.

NOTE: Because of rounding, number of institutions in universe may not add to total.

SOURCE Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 18. --Number and percentage of institutions included in the study sample and the universe that reported the number of freshmen enrolled in a remedial/developmental reading course, by institutional characteristics: United States, 1989-90

Institutional characteristic	Respondents		Universe	
	Number	Percent	Number	Percent
All institutions.....	223	100	1,366	100
<b>Control</b>				
Public.....	165	74	899	66
Private.....	58	26	467	34
<b>Type</b>				
2-year.....	89	40	755	55
4-year.....	134	60	611	45
<b>Region</b>				
Northeast.....	54	24	288	21
Central.....	66	30	431	32
Southeast.....	58	26	377	28
West.....	45	20	269	20
<b>Size of institution</b>				
Less than 1,000.....	29	13	307	22
1,000.....	80	36	665	49
5,000 or more.....	114	51	393	29
<b>Minority</b>				
Minority.....	33	15	259	19
Nonminority.....	190	85	1,107	81

NOTE: Because of rounding, percent of institutions in universe may not add to 100. Because of rounding, number of institutions in universe may not add to total.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

Table 19.--Standard errors of selected items

Institutional characteristic	Percent of institutions offering remedial reading, writing, or math courses		Percent of institutions offering remedial math courses		Average number of remedial math courses offered		Percent of freshmen enrolled in remedial courses in reading, writing, or math		Percent of freshmen enrolled in remedial math courses	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
All institutions.....	74	2.1	68	2.2	2.3	0.11	30	1.4	21	1.0
<b>Control</b>										
Public.....	91	1.4	89	1.5	3.0	0.17	32	1.3	23	1.0
Private.....	58	3.8	47	4.1	1.3	0.13	22	4.2	12	2.2
<b>Type</b>										
2-year.....	90	2.5	84	2.9	3.0	0.22	36	2.1	26	1.6
4-year.....	64	3.0	57	2.7	1.7	0.09	24	1.9	15	1.1
<b>Selectivity</b>										
Most difficult.....	27	11.3	18	13.9	2.3	1.62	(*)	(*)	(*)	(*)
Very difficult.....	32	7.7	27	6.7	1.6	0.28	(*)	(*)	(*)	(*)
Moderately difficult.....	62	4.0	55	3.7	1.6	0.13	(*)	(*)	(*)	(*)
Minimally difficult.....	73	6.8	62	8.1	1.4	0.16	(*)	(*)	(*)	(*)
Noncompetitive.....	96	1.7	91	2.7	3.1	0.24	(*)	(*)	(*)	(*)
<b>Region</b>										
Northeast.....	67	5.1	61	5.4	1.9	0.20	33	3.0	20	2.0
Central.....	82	4.4	74	4.4	2.2	0.23	23	2.6	19	2.5
southeast.....	73	4.8	65	3.5	1.9	0.21	31	3.1	23	2.4
West.....	74	5.3	71	5.3	3.4	0.40	34	2.4	22	1.7
<b>Size of institution</b>										
Less than 1,000.....	60	5.0	48	5.6	1.2	0.10	26	3.9	18	3.7
1,000 to 4,999.....	78	2.7	75	2.9	2.3	0.13	33	2.4	22	2.1
5,000 or more.....	87	2.3	81	3.0	3.4	0.30	29	1.8	20	1.3
<b>Minority status</b>										
Minority.....	74	6.8	69	7.6	2.1	0.26	55	4.0	35	4.5
Nonminority.....	74	2.0	68	2.5	2.4	0.12	27	1.6	19	1.1

Table 19.--Standard errors of selected items--Continued

Institutional characteristic	Percent of freshmen passing remedial math courses		Percent of institutions unable to provide remedial reading course enrollment data for all freshmen		Percent of institutions providing remedial reading course enrollment data for all freshmen but not for racial/ethnic groups		Average number of persons teaching one or more remedial courses		Percent of institutions giving credit for remedial courses in math	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
All institutions .....	67	1.3	18	2.6	32	3.7	14.9	.78	69	2.7
<b>Control</b>										
Public .....	65	1.4	22	3.7	29	4.4	21.9	1.04	79	2.8
Private .....	80	4.4	6	2.9	36	6.5	4.7	0.44	51	5.7
<b>Type</b>										
2-year .....	65	1.3	20	4.3	36	5.8	20.2	1.28	79	3.3
4-year .....	69	2.6	14	2.5	27	3.9	10.1	0.70	60	4.0
<b>Region</b>										
Northeast .....	69	3.5	22	5.8	42	8.1	16.4	2.07	49	8.1
Central .....	65	1.9	16	5.3	34	8.9	11.6	1.83	66	5.6
Southeast .....	68	4.0	4	1.9	24	7.3	13.3	1.65	87	4.2
West .....	65	2.1	30	6.9	29	8.0	19.9	2.74	77	4.8
<b>Size of institution</b>										
Less than 1,000 .....	79	4.4	4	3.7	38	9.2	3.0	0.25	66	8.1
1,000 to 4,999 .....	69	1.9	14	3.9	29	5.2	10.4	0.90	73	3.8
5,000 or more .....	65	1.9	30	4.6	32	5.7	33.2	1.93	66	4.3
<b>Minority status</b>										
Minority .....	63	4.8	13	5.4	36	9.8	16.6	3.53	73	7.0
Nonminority .....	67	1.2	19	2.9	31	3.8	14.6	0.81	68	2.9

Table 19.--Standard errors of selected items--Continued

institutional characteristic	Percent of institutions requiring students needing remediation to take remedial courses in math		Percent of institutions using placement tests to select participants for remedial courses in writing		Percent of institutions basing remedial math Course exit skills on regular academic course entry skills		Percent of institutions letting students take some regular academic courses while taking remedial courses in math		Percent of institutions providing peer tutoring specifically for students needing remediation	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
<b>All institutions</b> .....	<b>63</b>	<b>2.4</b>	<b>94</b>	<b>1.4</b>	<b>86</b>	<b>2.2</b>	<b>69</b>	<b>2.8</b>	<b>85</b>	<b>2.3</b>
<b>Control</b>										
Public.....	57	3.3	96	1.0	86	2.5	73	2.1	87	2.2
Private.....	74	5.8	91	3.0	85	3.9	62	5.7	82	5.0
<b>Type</b>										
2-year.....	51	4.1	97	1.1	86	3.1	71	3.5	83	3.9
4-year.....	74	3.4	91	2.3	85	2.8	66	3.7	87	3.1
<b>Region</b>										
Northeast.....	70	6.2	94	2.6	85	3.7	63	6.7	85	3.8
Central.....	60	5.7	90	2.5	84	4.2	62	5.2	82	4.9
Southeast.....	76	6.3	99	0.6	88	4.5	84	4.8	84	4.4
West.....	47	5.6	96	2.2	86	4.3	70	4.8	90	3.0
<b>Size of institution</b>										
Less than 1,000.....	75	7.5	94	3.1	79	5.3	64	7.7	81	6.2
1,000 to 4,999.....	60	4.7	95	1.8	87	2.8	71	4.4	85	3.5
5,000 or more.....	58	4.1	92	1.9	88	2.6	70	3.5	89	2.6
<b>Minority status</b>										
Minority.....	62	6.8	100	0.0	91	4.8	81	6.5	83	8.1
Nonminority.....	63	3.0	93	1.6	85	2.3	67	3.3	86	2.7

Table 19.--Standard errors of selected items--Continued

Institutional characteristic	Percent of institutions conducting student evaluations of remedial program		Percent of institutions ranking first in importance student evaluations of remedial programs		Percent of institutions communicating with high schools about skills needed for college work		Percent of institutions maintaining baccalaureate degree graduation rates for entering freshmen who enrolled in at least one remedial course	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
All institutions.....	80	2.1	25	2.6	54	3.1	19	3.1
<b>Control</b>								
Public.....	80	2.3	25	3.6	71	3.7	21	3.9
Private.....	81	4.0	24	4.0	28	4.3	17	4.5
<b>Type</b>								
2-year.....	83	2.9	30	4.6	62	4.8		
4-year.....	78	3.4	20	3.0	47	4.0		
<b>Region</b>								
Northeast.....	79	5.3	17	3.6	46	5.7	17	8.5
Central.....	80	4.8	25	3.6	49	5.5	17	5.3
Southeast.....	86	4.0	26	6.0	66	6.0	21	4.9
West.....	77	4.2	32	6.5	59	7.2	21	7.7
<b>Size of institution</b>								
Less than 1,000.....	83	5.5	29	6.2	30	6.2	24	7.8
1,000 to 4,999.....	86	2.7	27	3.5	58	4.2	17	4.7
5,000 or more.....	71	3.3	18	3.2	69	4.0	16	3.5
<b>Minority status</b>								
Minority.....	73	9.1	15	4.9	56	9.4	26	9.3
Non-minority.....	82	2.4	27	2.8	54	3.4	17	3.5

\*Too few cases for a reliable estimate.

--Not applicable. This question was asked only of 4-year institutions; comparisons between 2- and 4-year schools were, therefore, not computed.

SOURCE: Fast Response Survey System, College-Level Remedial Education in the Fall of 1989, FRSS 38, U.S. Department of Education, National Center for Education Statistics, 1991 (survey conducted in 1990).

SURVEY OF REMEDIAL/DEVELOPMENTAL  
STUDIES IN INSTITUTIONS OF  
HIGHER EDUCATION

This report is authorized by law (20 U.S.C. 1221e-1). While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate, and timely.

Definition of Remedial/Developmental Studies for Purposes of this Study:

Program, course, or other activity (in the area of reading, writing, or math) for students lacking those skills necessary to perform college level work at the level required by YOUR institution. Throughout this questionnaire these activities are referred to as "remedial/developmental"; however, your institution may use other names such as "compensatory," "basic skills," or some other term. Please answer the survey for any activities meeting the definition above, regardless of name; however, do not include English as a second language when taught primarily to foreign students.

Please answer for your regular undergraduate programs and use data from your institutional records whenever possible. If exact data are not available, then give your best estimate.

Does your institution offer any remedial/developmental courses? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, please complete section below and mail to the address on back of the survey.

Person completing this form: Name \_\_\_\_\_ Title \_\_\_\_\_  
institution \_\_\_\_\_ State \_\_\_\_\_ phone (\_\_\_\_) \_\_\_\_\_

1. Enter information requested in Parts a-f for remedial/developmental courses in each subject area in fall 1989. For those subjects (reading, writing, or math) in which you have no remedial courses, enter "0" in Part a and skip Parts b-f.

Remedial/developmental course information	Reading	Writing	Math
a. What is the number of remedial/developmental courses with different catalog numbers in fall 1989? (Do not count multiple sections of the same course.)			
b. What is the most frequent type of credit earned from remedial/developmental courses? (enter one) 1= No formal credit 2= Institutional credit, does not meet subject or graduation requirements 3= Degree credit, elective only 4= Degree credit, meets subject requirements			
c. What is the most frequent type of course requirement status for students needing remedial/developmental courses? Courses are: (enter one) 1= Required; 2= Recommended but not required; 3= Voluntary			
d1. Are placement tests used to select participants? (enter yes or no)			
d2. While students are taking remedial/developmental courses, can they take: (enter one) 1= Any regular academic courses? 2= Some regular academic courses? 3= No regular academic courses?			
e. Who most often provides remedial/developmental education? (enter one) 1= Separate remedial division/department 2= Traditional academic department(s) 3= Counseling/tutoring center 4= Learning Center 5= Other (specify)			
f. Are the exit skills provided by remedial/developmental courses based on the entry skills required by the regular academic courses? (enter yes or no)			

2. Rank in order of importance the principal types of evaluation of remedial/developmental programs that your institution conducts. (1= most important; 2= second most important, etc., for all that apply)

- a. Student evaluation of course or program \_\_\_\_\_  
 b. Instructor evaluation of course or program \_\_\_\_\_  
 c. Student completion rate or grade for course or program \_\_\_\_\_  
 d. Followup studies of grades at the next level of courses \_\_\_\_\_  
 e. Other followup studies of students' academic performance \_\_\_\_\_  
 f. Other (specify) \_\_\_\_\_

3a. How many persons (unduplicated head count) taught one or more remedial/developmental courses in fall 1989? \_\_\_\_\_  
 Of these, how many: b. Were specifically hired for this purpose? \_\_\_\_\_

- c. Had degree credentials specific to remedial education? \_\_\_\_\_  
 d. Were given specific training by your institution for teaching remedial/developmental courses? \_\_\_\_\_

4. Which of the following academic support services does your institution provide specifically for students needing remediation? (check all that apply)

- \_\_\_\_\_ a. Peer tutoring  
 \_\_\_\_\_ b. Faculty tutoring  
 \_\_\_\_\_ c. Additional diagnostic testing  
 \_\_\_\_\_ d. Counseling  
 \_\_\_\_\_ e. Assistance labs  
 \_\_\_\_\_ f. Learning Center  
 \_\_\_\_\_ g. Other (specify) \_\_\_\_\_

5. What is your institution doing to reduce the need for remedial/developmental education? (check all that apply)

- \_\_\_\_\_ a. Communicating with high schools about skills needed for college work  
 \_\_\_\_\_ b. Participating in or organizing workshops for high school faculty  
 \_\_\_\_\_ c. Other (specify) \_\_\_\_\_  
 \_\_\_\_\_ d. None of the above, currently

6a. For each racial/ethnic group, what percent of entering freshmen enrolled in one or more remedial/developmental course in fall 1989? (Give unduplicated counts of students within each subject.)

	<u>Reading</u>	<u>Writing</u>	<u>Math</u>
1. All freshmen (all racial/ethnic groups combined)?	_____	_____	_____
2. Black, non-Hispanic?	_____	_____	_____
3. White, non-Hispanic?	_____	_____	_____
4. Hispanic?	_____	_____	_____
5. Asian/Pacific Islander?	_____	_____	_____
6. American Indian/Alaskan Native?	_____	_____	_____

6b. Are the numbers of all freshmen (all groups combined) in Q6a:  From institutional records? OR  Estimates?

6c. Are the numbers by race/ethnicity in Q6a (2 through 6):  From institutional records? OR  Estimates?

7a. For each racial/ethnic group, what percent of entering freshmen in Q6a passed or successfully completed one or more remedial/developmental courses in fall 1989? (Give unduplicated counts of students within each subject.)

	<u>Reading</u>	<u>Writing</u>	<u>Math</u>
1. All freshmen (all racial/ethnic groups combined)?	_____	_____	_____
2. Black, non-Hispanic?	_____	_____	_____
3. White, non-Hispanic?	_____	_____	_____
4. Hispanic?	_____	_____	_____
5. Asian/Pacific Islander?	_____	_____	_____
6. American Indian/Alaskan Native?	_____	_____	_____

7b. Are the numbers of all freshmen (all groups combined) in Q7a:  From institutional records? OR  Estimates?

7c. Are the numbers by race/ethnicity in Q7a (2 through 6):  From institutional records? OR  Estimates?

8. Give the total, unduplicated percent of entering freshman who enrolled in one or more of the above remedial/developmental courses in fall 1989. \_\_\_\_\_

9a. For each racial/ethnic group in Columns I and II, what percent of 1988-89 full-time entering freshmen continued at your institution to the start of their second year (1989-90)?

	<u>Column I</u> Of all 88-89 full-time entering freshmen within each racial/ethnic group	<u>Column II</u> Of 88-89 full-time entering freshmen who enrolled in <u>at least one</u> remedial/developmental course within each racial/ethnic group
<b>Calculate percent for each racial/ethnic group separately</b>		
1. All freshmen (all racial/ethnic groups combined)?	_____ %	_____ %
2. Black, non-Hispanic?	_____ %	_____ %
3. White, non-Hispanic?	_____ %	_____ %
4. Hispanic?	_____ %	_____ %
5. Asian/Pacific Islander?	_____ %	_____ %
6. American Indian/Alaskan Native?	_____ %	_____ %

9b. Is the percent of all freshmen (all groups combined) in Column II:  From institutional records? OR  Estimates?

9c. Are the percents of freshmen in each racial/ethnic group in Column II:  From institutional records? OR  Estimates?

10. FOR 4-YEAR SCHOOLS ONLY: Does your institution maintain baccalaureate degree graduation rates:

a. For all entering freshmen?	_____ Yes	_____ No
b. By racial/ethnic group for all entering freshmen?	_____ Yes	_____ No
c. For entering freshmen who enrolled in at least one remedial/developmental course?	_____ Yes	_____ No
d. By racial/ethnic group for entering freshmen who enrolled in at least one remedial/developmental course?	_____ Yes	_____ No