

Examining College Remediation Trends in Indiana

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UPCOMING POLICY BRIEFS AND REPORTS . . .

- ✓ *Redesigning High Schools -2006 Update*
- ✓ *Trends in Teacher Recruitment, Retention, and Rewards*
- ✓ *Indiana's Mathematics and Science Performance: Do We Measure Up?*

INTRODUCTION

The need for college remediation is a strong predictor that a student will fail to achieve a college degree. Sometimes referred to as developmental education or basic skills education, remedial courses involve instruction in academic content and development of skills that are prerequisites for success in college-level courses. While college remediation is a growing concern among educators and policymakers today, its presence in the college curriculum is not new, and its origin in the United States can be traced as far back as the 17th century. Formal preparatory programs were established in the 18th century, and the first official remedial education programs began in 1849 at the University of Wisconsin. As colleges and universities have grown and student enrollment has increased over the years, the number of students underprepared for college-level coursework has increased as well (Merisotis & Phipps, 2000). This Education Policy Brief reviews the status of remedial education at the postsecondary level by examining state and national data and considers why college-level remedial programs are necessary. This Brief also examines the costs and systems of delivery for these programs, and strategies to lessen the need for remediation.

STATUS OF COLLEGE REMEDIAL EDUCATION IN THE U.S.

The National Center for Education Statistics (NCES) published a report in 2003 that provided significant information about the extent of remedial education at the postsecondary level as of the fall of 2000. According to the report, the need for remedial

education is fairly high. For example, 28 percent of freshmen—defined by NCES as first-year, first-time students—registered for at least one remedial course in fall 2000, most frequently in remedial mathematics courses, followed by writing courses and reading courses, respectively. While the proportion of freshmen taking remedial courses did not change between 1995 and 2000, the average length of time they spent in these courses has increased. In 1995, 33 percent of institutions offering remediation reported that students spent an average of one year or more in remedial courses, while 40 percent of institutions reported the same in 2000.

In general, most colleges and universities had similar organizational structures for their remediation programs during the fall semester of the 2000-01 academic year. Approximately 57 to 61 percent¹ of institutions determined students' need for remediation by administering placement tests, and 75 to 82 percent required underprepared students, identified through such placement tests, to enroll in remedial courses. While over two-thirds of the institutions restricted the type of credit students could earn from remedial courses to institutional credit (as opposed to credit counting toward their degrees), only 26 percent limited the amount of time students could remain in remedial education. Between 1995 and 2000, the proportion of institutions that placed restrictions on regular coursework students could take simultaneously with remedial coursework increased significantly from between 64 and 67 percent in 1995 to between 82 and 88 percent in 2000. In addition, the majority of institutions provided remedial courses through traditional academic departments in 2000 rather than creating departments specifically for remedial education (NCES, 2003).

Who enrolls in college remedial courses?

Students who enroll in remedial courses constitute a very diverse population on numerous levels. According to a 2002 NCES study, students of various ethnicities tend to have different remediation needs. Of first- and second-year undergraduates in 1999-2000, white students were the least likely to have taken any remedial courses, at 31.9 percent. African American students were the most likely of those students to have taken remedial coursework at some point in their collegiate career (45.9 percent), while Hispanic students were the most likely to actually be taking a remedial course during the 1999-2000 school year (27.7 percent). Compared to African American and white students, higher proportions of Asian and Hispanic students enrolled in remedial reading and writing courses. Of the students who took remedial courses in 1999-2000, about three-quarters of African American, white, and Hispanic students took remedial mathematics courses, compared to 58 percent of Asian students.

Students' socioeconomic status, parents' levels of educational attainment, and disability status affect participation in college remediation as well. Student income level is inversely proportional to the likelihood of taking remedial courses. Of legally dependent students in 1999-2000, 26.1 percent of first- and second-year students in the bottom income quartile took remedial courses, compared to 18.8 percent of those in the middle quartiles and 18.4 percent of those in the top income quartile. The trend is similar for first- and second-year students who are considered independents, with 23.8 percent of those in the bottom income quartile taking remedial coursework, 19.9 percent of those in the middle quartiles, and 14 percent of those in the top quartile. Furthermore, 18 percent of students whose parents completed at least bachelor's degrees took remedial courses in the 1999-2000 school year, compared to over 21 percent of students whose parents did not acquire postsecondary degrees. Finally, more students who reported having a disability took remedial courses than did non-disabled students (NCES, 2002).

Age is another significant factor to consider in the population of college students needing remediation. Jan M. Ignash, the assis-

tant director of academic affairs at the Illinois Board of Higher Education, explains that this population "can be thought of as bipolar in terms of age and time elapsed between secondary and post-secondary educational experiences" (Ignash, 1997, p. 10). For instance, in the 1999-2000 school year, about as many adults over the age of 23 enrolled in college-level remediation as did freshmen 23 years of age or younger (NCES, 2002). With a longer gap in between their high school and college education, older adults understandably may need remediation to refresh their knowledge of academic material they presumably learned in the past. On the other hand, educators and policymakers debate why recent high school graduates do not possess the skills and competencies they should have learned in high school (Merisotis & Phipps, 2000; Oudenhoven, 2002). Thus, one reason that the solution for reducing the need for remedial education is unclear is that the population of students needing college remediation is widely diverse in terms of background and needs.

Why is there an increasing need for remedial education?

The rising number of college students needing remedial education is not necessarily an indication that students are becoming less capable or hard-working; rather, increasing enrollment in higher education, heightened competition in the job market, and poor high school preparation all affect the level of need for remedial education. The sheer number of students enrolling in postsecondary institutions has risen significantly in recent years. U.S. Census Bureau data show that from 1955 to 2003, there has been a steady increase in all age groups of college students across the country. In October 2003, the number of students enrolled in postsecondary institutions was 16.6 million, up from 14.4 million only a decade earlier (U.S. Census Bureau, 2005). Undergraduate enrollment rose 15 percent between 1998 and 2002 (NCES, 2004). While there was an increase in the number of freshmen enrolled in remedial education from 1995 to 2000, the proportion of college freshmen enrolled in remedial education did not increase (NCES, 2003).

Competition in the job market is becoming more intense, affecting the standards for

skill mastery and for determining remediation needs at the college level. According to David H. Ponitz, former president of Sinclair Community College in Dayton, Ohio, 65 percent of jobs in 1998 required workers to have the advanced skills of a "generalist/technician," while only 15 percent of jobs required similar skills in 1978 (Breneman, Costrell, Haarlow, Ponitz, & Sternberg, 1998). As technology continues to play a larger role in the workforce and as more people enroll in higher education, colleges and students are under mounting pressure to raise the level of skills acquired in college courses. Many institutions are responding to these changes by elevating the standards for college-level mathematics courses. For instance, public postsecondary institutions in Illinois moved Intermediate Algebra from the college-level category of courses to the developmental-level in 1993 (Ignash, 1997). College students today are facing higher academic demands than ever before, so remedial education is essential for meeting the needs of students who are not yet prepared to fulfill these demands.

Many students are entering college without already having mastered prerequisite skills. In 2005, Achieve, Inc. sponsored a survey of nearly 1,500 recent high school graduates, 400 employers, and 300 college instructors. This survey revealed that instructors estimated that 42 percent of students come to college unprepared, and 39 percent of recent high school graduates admitted they were not ready for college coursework (Peter D. Hart Research Associates/Public Opinion Strategies, 2005). Furthermore, in 2005 only 21 percent of high school students who took the national ACT college entrance exam met the college readiness benchmarks in biology, algebra, social sciences, and English composition (ACT, Inc., 2005).

In a 2004 CEEP Education Policy Brief, Jonathan Plucker, Jason Zapf, and Terry Spradlin addressed high schools' effectiveness in preparing students for future success. They reported that while college preparatory classes in high school positively impact student academic achievement at the college level, many high school students lack access to such courses and to other advanced classes. At the same time, some high school teachers' low expectations for students influence the types of classes that students can take and consequently their success beyond high school. Low expectations influence students' atti-

tudes and work ethics: according to Achieve, Inc., 81 percent of surveyed students said “they would have worked harder if their high school experience had demanded more of them” (Peter D. Hart Research Associates/Public Opinion Strategies, 2005). Numerous researchers and policymakers suggest that high schools must improve student achievement, through rigorous and relevant curriculum as well as high expectations for students, in order to alleviate the need for college remediation.

High schools often fail to motivate students most during their last year of high school. Many high school seniors experience “senior slump,” during which they focus less on academics and more on relaxation (Kirst & Venezia, 2001). For instance, many high school seniors do not take mathematics classes because they have already fulfilled the minimum mathematics requirement for college admission, or they do not work as hard to keep their grades high after they are admitted to college. Many experts argue that the “senior slump” often accounts for students forgetting or never achieving certain skills by the end of high school and consequently needing remediation in college (Kirst & Venezia, 2001).

What are the costs of providing remedial education?

Many people criticize the high costs associated with college remediation, for which consistent and accurate numbers are hard to determine. With unclear standards about what constitutes remedial education, and which particular expenses colleges and universities consider in their reports, the actual cost of remedial education is probably higher than reports claim (Merisotis & Phipps, 2000). Reports from both businesses and postsecondary institutions indicate the costs of remedial education were approximately \$601 million in Michigan in 2000 and \$541 million in Alabama in 2004 (Greene, 2000; Hammons, 2004). At the national level, loss of productivity and remedial costs adds up to approximately \$16 billion per year for businesses and schools due to lack of appropriate skills held by workers and students (National Education Summit on High Schools, 2005). Remedial education in public colleges alone costs over \$1 billion annually (Breneman et al., 1998).

The costs of remedial education are clearly high, and many colleges question how willing they are to continue paying. Some argue that such expenses divert funding from more valuable and appropriate college-level investments and that high schools should bear some of the cost for failing to instill in graduates mastery of basic skills. Moreover, taxpayers have complained that they are paying twice for students’ education in basic skills—once in high school and then again in college (Ignash, 1997; Oudenhoven, 2002).

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However, the social costs of not providing remedial education may outweigh the economic costs of its provision. The \$1 billion spent annually on remedial education constitutes less than one percent of the total yearly expenditure toward public higher education—a cost that researchers David Breneman and William Haarlow at the University of Virginia stress is well worth the benefits of remediation for individuals and for society as a whole. Refusing to offer remedial courses means refusing a significant portion of the student population the opportunity to succeed in college and beyond, especially in an age of advancing job requirements (Breneman & Haarlow, 1999; Merisotis & Phipps, 2000). According to an Education Commission of the States national survey, “limiting or eliminating remedial courses in higher education” was one of the most debated issues in 2002 among the states regarding community college remedial education; it was also an issue for which no state had reported taking action (Jenkins & Boswell, 2002). Even with complaints regarding expenses of remediation, colleges have yet to find alternatives that sufficiently meet student and societal needs.

Who is responsible for providing remedial education?

Partly because of the great costs associated with remedial education, policymakers and educators have debated who should assume the financial responsibility for providing remedial coursework. In 2000, 76 percent of postsecondary institutions offered at least one remedial course. Of all the institutions that offered remedial coursework, 43 percent were public two-year institutions—public two-year colleges provided remedial education more than any other type of higher education institution, whereas private institutions were least likely to offer remedial courses. In addition, freshmen in public two-year colleges remained in remedial courses longer than freshmen in public four-year schools (NCES, 2003).

The Education Commission of the States reported that the issue of “making community colleges responsible for remedial education” was the college remediation issue debated in the highest number of states in 2002 (Jenkins & Boswell, 2002). Many claim that aiding underprepared students is an integral part of the mission of community colleges; thus, community colleges should logically shoulder the responsibility for providing remedial education. Because remedial courses are not college-level, many four-year colleges assert that they should not be responsible for providing such coursework. Additionally, these schools worry that remedial programs unfairly lower their academic reputations. The resources that four-year institutions allocate for remedial education should instead, some higher education officials suggest, go toward supporting degree programs (Ignash, 1997; Oudenhoven, 2002).

Consequently, there have been attempts to limit or eliminate remedial education programs in various four-year colleges and universities across the country. For instance, the California State University system decided in 1999 to enforce stricter limits on the length of time students can take part in remedial programs in order to reduce the number of students enrolling in remedial coursework at four-year schools. The four-year institutions in the City University of New York (CUNY) system have stopped offering remedial coursework and now only admit students who pass specific skills-assessment tests (NCES, 2003). Sim-

ilarly, the state of Nevada will no longer fund remedial courses at state universities after the 2005-06 school year (Varughese, 2005). Such restrictions are meant to shift more complete responsibility for the provision of remediation to two-year colleges.

In contrast, other experts insist eliminating remedial education from four-year institutions places unfair burdens on community colleges. Not only would the costs be extremely high, but there would be the risk of strengthening the “caste system” developing between two-year and four-year colleges (Oudenhoven, 2002). Just as officials at four-year institutions resist tainting their schools’ reputations with remedial coursework, community college leaders do not want their institutions to be considered remedial schools. Because research shows that more minority and low socioeconomic status students need remediation, refusal to provide remedial courses at four-year institutions could widen achievement gaps between different groups (Ignash, 1997). At the same time, some four-year colleges would suffer a significant loss of enrollment if they turn away all students who require remediation (Oudenhoven, 2002). Presently there is no single decision that would satisfy all educators, policymakers, and students, and a nationwide effort to transfer sole responsibility for remedial education to community colleges does not seem a viable option.

Why is collaboration necessary between secondary and postsecondary institutions?

One of the primary problems related to college remediation is the ambiguity of what constitutes “college-ready skills” and the inconsistency of high school curriculum and academic standards. Consequently, what colleges expect and what students actually achieve in high school frequently do not match, resulting in high demand for remedial courses. Aligning secondary and higher education objectives and assessments is difficult because the two systems are organized and run differently, and there is generally a lack of public forum for discussion and problem-solving among educators at both levels (Olson, 2001). At the same time, many postsecondary school officials hesitate to get closely involved with the high level of political influence

present in elementary and secondary education, claiming that they have the right to make decisions independently (Kirst & Venezia, 2001; Olson, 2001).

The more remedial courses a student takes, the smaller his or her likelihood of completing an undergraduate degree. For students needing remediation in reading, success in college is especially low.

However, experts assert that collaboration between secondary and postsecondary systems is essential to effectively reducing the need for remedial college courses. Steady communication between the two sectors and alignment of high school curricula to college placement requirements can facilitate students’ college preparation. Furthermore, creating a clear connection to higher education can increase students’ motivation to work hard in high school (Kirst, 2001; Olson, 2001). By informing students how to prepare for college placement exams and by making college admission contingent on senior year achievement, postsecondary educators can also help reduce the occurrence of “senior slump” (Kirst, 2001). Some states, including New York, Oregon, and Maryland, have matched college admission policies with high school assessments. In addition, national projects such as Standards for Success and the American Diploma Project have been developed in an effort to evaluate and extend the relationship between secondary and postsecondary schools (Olson, 2001). In a news release from Achieve, Inc. (2006), one of the partners in the American Diploma Project, Achieve’s executive vice president Matthew Gandal states:

It is clear that the states moving the farthest and the fastest are those that have effectively overcome the traditional barriers between the K-12 community and postsecondary worlds. Leaders from the K-12 community are working alongside leaders from higher education and business—in many cases for the first time ever—to align their

expectations. This should result in better prepared students and a more meaningful high school diploma. (p. 2)

Building strong connections between high schools and colleges appears to be an important step toward lowering the need for college remediation.

What is the result of completing remedial courses?

Another pressing concern regarding college remediation is its effect on student achievement. Clifford Adelman (1998), in research conducted for the U.S. Department of Education, found that the amount and type of remediation students receive correlate with their success in college. The more remedial courses a student takes, the smaller his or her likelihood of completing an undergraduate degree. For students needing remediation in reading, success in college is especially low. Students who took remedial reading required more overall remedial coursework than others who did not, with 66 percent of those in remedial reading taking three or more additional remedial classes. Of those in more than one remedial reading course, less than 9 percent earned bachelor’s degrees, compared to 54 percent of those who required no remedial education. Adelman claims such results are indicative that college remediation in its current state is ineffective and a waste of resources.

However, other researchers stress that remedial courses really do help underprepared students succeed. A study done at Ivy Tech Community College of Indiana compared full-time, underprepared students who took remedial courses to full-time underprepared students who did not take such courses. The study revealed that the students who enrolled in remedial coursework received better grades in college-level courses and higher grade point averages than similar students who did not take remedial courses. In addition, those who completed their remediation attained more college credits than those who only completed some remediation, who in turn attained more college credits than those who needed yet received no remediation (Batzer, 1997). In a similar study of public postsecondary institutions in Ohio, researchers concluded that “students in remediation [had] better educational outcomes in comparison to students with sim-

ilar backgrounds and preparation who were not required to take the [remedial] courses” (Bettinger & Long, 2005, p. 20). For example, underprepared students decreased their probability of dropping out of college and increased their probability of receiving a degree by completing remedial courses in mathematics and English (Bettinger & Long, 2005). Studies of Indiana students who graduated from high school in 2000 and immediately enrolled in higher education found that when other variables are removed, white, Hispanic, African American, and first-generation students from those demographics who take both remedial mathematics and language arts courses are more persistent than students who take no remedial courses (Simmons, Musoba, & Chung, 2005; St. John, Carter, Chung, & Musoba, 2004).

REMEDIAL EDUCATION IN INDIANA

The percentage of high school graduates enrolled in higher education is increasing steadily in Indiana. The percentage of new high school graduates enrolled in college courses increased from 50 percent in 1992 to 62.4 percent in 2002, while the national numbers during that time period increased from 53.6 to 56.6 percent. Over this 10-year period, Indiana’s college-bound rate moved from 34th in the nation to 10th (Indiana Commission for Higher Education, 2005).

According to data from the Indiana Project on Academic Success (2006), there were 316,754 undergraduates pursuing a two- or four-year degree in Indiana public higher education institutions for the 2003-04 academic year. Of those students, 13.6 percent took at least one mathematics or language arts remedial course. Of the 92,624 freshman students (defined as students that have completed less than 25 percent of credits necessary for degree completion) pursuing degrees in Indiana’s public institutions of higher learning in 2003-04, 23.3 percent took at least one remedial mathematics or language arts course. Enrollment and remediation participation rates have steadily increased since 2000-01 for undergraduate students. Although enrollment for freshman students has remained relatively unchanged over this time, remediation participation rates have increased (see Tables 1 and 2 on page 6).

Indiana’s public institutions of higher education range significantly in how many of their students participate in remedial education. From 2000-01 to 2003-04, of schools other than Ball State University and Purdue University-West Lafayette, which do not offer remedial education, percentages of participation among undergraduates per school ranged from lows of 0.4-2.5 percent to highs of 41-42.7 percent. The lowest levels of freshman participation in Indiana postsecondary institutions that had any remedial education ranged from 0.7 to 6.3 percent, while the schools with the highest participation in remedial education had between 49.1 and 51.5 percent of their freshman students taking at least one remedial course (Indiana Project on Academic Success, 2006). Furthermore, at Indiana University-Bloomington, the state’s largest university campus, one in seven freshmen currently require remedial classes.²

The face of remedial education has shifted sharply since 1999 in Indiana’s postsecondary institutions. Of the 14 state college and university campuses that offered remedial education from 1999-2000 to 2003-04, 8 had a decrease in number of remedial sections offered and 9 had a decrease in remedial enrollment (see Table 3 on page 7). The sharpest decreases among these were Indiana University Purdue University-Indianapolis and Indiana University-South Bend. Remedial enrollment at Ivy Tech Community Colleges of Indiana soared during this time period, resulting in Ivy Tech offering 79 percent of Indiana’s remedial sections and instructing 77 percent of Indiana’s remedial students by 2003-04, in contrast to 63 percent and 58 percent, respectively, in 1999-2000. From 1999-2000 to 2003-04, Ivy Tech saw a four-year increase of 1,266 remedial sections and 25,148 remedial students. It should be noted that these remedial enrollment figures are limited and to be interpreted with caution, as they are a duplicated headcount for those enrolled in both remedial mathematics and language arts.

Of those attending Indiana public institutions of higher learning who reported race and ethnicity in 2001-02,³ African American students were most likely to participate in remediation in both mathematics and language arts, with 21.1 percent of African American undergraduates in remedial mathematics, 13.2 percent in remedial language arts, and 24.5 percent taking at least one of the two. Asian American/Pacific

Islander students had the lowest percentages in both remedial categories, with 3.3 percent attending remedial mathematics courses, 2.7 percent in remedial language arts, and 5 percent in either remedial mathematics or language arts. In all other demographic groups, each population had roughly twice as many undergraduates in remedial mathematics courses as in remedial language arts.

Remedial rates for all racial and ethnic groups rose through 2003-04. African American students were still the most likely to be in remedial education while Asian American/Pacific Islander students were the least likely. However, 24.8 percent of African Americans were now taking remedial mathematics and 13.8 percent were taking at least one remedial language arts course, with a total of 28.2 percent of African American undergraduates in either mathematics or language remediation. Asian American/Pacific Islander undergraduates now had 4.3 percent in remedial mathematics and 4.4 percent in remedial language arts, with 7 percent taking either remedial mathematics or language.

Increases in the percentage of students in remedial mathematics ranged from a 15 percent increase for white undergraduates to a 47 percent increase for Hispanic students. In language arts, changes in remediation rates for each undergraduate demographic ranged from a 4 percent increase for Native Americans to a 63 percent increase for Asian American/Pacific Islander students. Overall, Indiana’s Hispanic population has seen the sharpest increase in remedial rates, with a 44 percent increase of Hispanic students in either mathematics or language arts remediation over the two-year period. The percentage of white students in remedial classes had the smallest increase, growing by 14 percent. The overall percentage of undergraduate remediation in either mathematics or language arts over this time period increased from 11.8 to 13.6, a 15 percent jump.

TABLE 1. Undergraduates in Indiana Public Higher Education Taking Remedial Coursework

	Number of Undergraduates	% Taking Remedial Mathematics	% Taking Remedial Language Arts	% Taking Remedial Mathematics and Language Arts
2000-01	289,211	9.0	4.3	2.8
2001-02	303,349	10.3	4.6	3.1
2002-03*	309,941	11.0	4.7	3.3
2003-04*	316,754	12.1	5.0	3.5

* Remedial information was missing for 4.7 percent of the population in 2002-03 and 5 percent of the population in 2003-04.

Source: Indiana Project on Academic Success (2006).

TABLE 2. Freshman Students in Indiana Public Higher Education Taking Remedial Coursework

	Number of Freshman Students	% Taking Remedial Mathematics	% Taking Remedial Language Arts	% Taking Remedial Mathematics and Language Arts
2000-01	91,544	15.5	7.5	4.9
2001-02	91,203	18.0	7.5	5.0
2002-03*	88,629	18.8	7.7	5.3
2003-04*	92,624	20.2	8.9	5.8

* Remedial information was missing for 3.9 percent of the population in 2002-03 and 4.1 percent of the population in 2003-04.

Source: Indiana Project on Academic Success (2006).

What is Indiana doing to lessen college remediation participation?

Indiana has taken multiple steps to lessen the need for remedial education among its incoming undergraduates. Indiana is one of 22 states to join in the American Diploma Project (ADP), an effort to raise the expectations and achievement of high school students to foster success in college and the workplace. Members of the ADP network have committed to a common policy agenda, centered on four main objectives. Of these objectives, Indiana has established policy for two and is working towards the implementation of the remaining two.

Indiana claims success in aligning academic standards in high school with the expectations for college and workplace success, as well as improving high school course requirements so that all students are

required to complete a college- and work-ready curriculum to earn a high school diploma. Indiana achieved these imperatives through revisions to the requirements of Core 40, a high school curriculum that was created with the input of teachers, post-secondary faculty, and employers to determine the curriculum needed for success after graduation. Indiana will require incoming freshmen in the 2007-08 school year to complete Core 40 in order to earn their high school diploma, with an opt-out provision, and have made it a minimum requirement for admission to Indiana's four-year universities starting in 2011 (ADP Indiana Action Plan, 2006). Indiana is one of 5 states that have aligned their high school standards with college and workplace expectations, and 30 other states have or will soon have similar processes underway (Achieve, Inc., 2006).

In addition to these two realized imperatives, the ADP Indiana Action Plan (2006) includes a 36-month work plan, which started in August 2005, to streamline the assessment process so that high school assessment tests can double as measures of college and workplace readiness, and to increase accountability for high schools and postsecondary institutions to properly teach and foster success in their respective students. The plan to streamline and improve assessment includes developing and testing new Core 40 end-of-course assessments; continuing analysis of assessment options, academic standards, and necessary work and college readiness levels; and making these assessments matter by including them on high school transcripts and encouraging employers and postsecondary institutions to use the transcripts in their hiring and acceptance decisions. Only

TABLE 3. Number of Remedial Sections and Total Remedial Enrollment at Indiana Public Postsecondary Institutions (Duplicate Headcount*)

	1999-2000		2000-01		2001-02		2002-03		2003-04	
	Sections	Head-count	Sections	Head-count	Sections	Head-count	Sections	Head-count	Sections	Head-count
IU-Bloomington	25	710	27	841	28	875	32	943	33	916
Purdue-W. Lafayette	0	0	0	0	0	0	0	0	0	0
IUPUI	190	4,533	159	4,005	111	3,222	108	2,098	25	462
Ball State	0	0	0	0	0	0	0	0	0	0
Indiana State	9	135	7	197	6	136	11	197	17	355
U. of Southern Indiana	56	1,314	53	1,304	68	1,762	80	1,952	78	1,659
IU-East	60	1,057	30	1,121	68	1,106	70	1,003	57	985
IU-Kokomo	28	553	26	490	24	493	23	516	25	638
IU-Northwest	60	1,080	49	1,037	46	945	44	908	36	870
IU-South Bend	116	2,142	116	2,192	40	964	46	884	38	864
IU-Southeast	50	970	52	1,004	51	1,088	42	949	33	767
IPFW	101	2,307	103	2,251	88	2,192	97	2,211	101	2,282
Purdue-Calumet	68	1,929	60	1,801	60	1,569	54	1,335	43	1,140
Purdue-North Central	14	350	16	465	16	445	15	369	16	325
Vincennes	365	5,128	349	4,701	357	5,055	337	5,074	340	5,057
Ivy Tech	1,919	30,460	2,192	34,266	2,617	44,115	2,828	49,462	3,185	55,608
Total	3,061	52,668	3,239	55,675	3,580	63,967	3,787	67,901	4,027	71,928

* Headcount duplicated for those who were in both remedial mathematics and remedial language arts.

Source: Indiana Commission for Higher Education (2005b), and Indiana University Reporting and Research (2006).

six states currently report that statewide tests given to students in high school are used for college admissions or placement, while Indiana is one of eight that are currently considering such measures (Achieve, Inc., 2006). The plan to increase accountability includes seeking to make the Core 40 assessments the primary indicators of high school performance, establishing a K-16 longitudinal data system, linking K-16 education to relevant labor market information, continuing the development of an electronic transcript system, and identifying institutional performance indicators and publishing college report cards.

It is the aim of these policies to improve college persistence and completion rates. However, it seems very likely that a reduction in the need for remedial education could also be a benefit of the implementation of these policies. According to the Indiana Commission for Higher Education (2005b), the need to invest resources into remedial education will be diminished as “Indiana high school students become more aware of the requirements for admission and success in Indiana’s colleges and universities and opportunities for Indiana high school students to pursue and successfully complete a Core 40 or the Academic Honors diploma increase” (p. 30).

Policy Perspective

REMEDIATION: A BALANCED APPROACH

Stan Jones



Remedial education at the collegiate level is at a significant crossroads, both in Indiana and around the nation. On one hand, there is increasing pressure to limit the amount of remedial instruction offered by our colleges and universities. We expect our colleges and universities to support efforts to increase student preparedness at the secondary level, thus eliminating the need for financially burdensome high school level coursework at an institution of higher education. At the same time, we put considerable pressure on our colleges to expand efforts to serve the needs of our working adults, a population that ranks low nationally in educational attainment and has varying degrees of developmental education needs. As outlined by this policy brief, collective efforts across the state's educational system are realizing a balanced approach to serving all students.

First and foremost, Indiana has resolved to increase the preparation of all high school students and, thereby, reduce the need for expensive remediation later on. More than a decade ago, Indiana business and education leaders recognized that the state and its citizens would face severe economic hardship unless more young people were ready for college and the demands of the knowledge-based global workplace.

At that time, the Core 40 curriculum (a college-prep/workplace-ready curriculum) was introduced and implemented as a voluntary diploma track for high school students. After twelve years of Core 40 being a voluntary curriculum, Indiana has legislated Core 40 to be the default curriculum. Additionally, the need to successfully complete Core 40 will be reinforced by Indiana's public four-year colleges and universities as it becomes the minimum course requirement admission standard for Hoosier students beginning with the high school graduating class of 2011. Many of our universities have begun taking this step and will require Core 40 at a minimum for college acceptance well before the 2011 deadline.

As noted in this policy brief, it is not just enough to provide students with access to a college preparatory curriculum. We also must ensure that the quality of the courses taught is consistent across the state and aligned with the expectations of entry-level college work. Also noted in this brief, Indiana's participation in the American Diploma Project is making consistent quality a reality by aligning high school graduate requirements in reading, writing, and mathematics with the admissions standards of the state's colleges. Through these efforts, Indiana's new high school End-of-Course Assessments (ECA) are being aligned with the course placement exams used by the state's public colleges and universities.

The new ECA system will improve the quality and consistency of the state high school courses, provide schools the opportunity and time to ensure that students have the necessary skills for success in college prior to graduation, and continue to align high school coursework with Indiana's nationally recognized Academic Standards. Linking Indiana's standards, Core 40 curriculum, ECAs, and college course placements will create a powerful foundation for all Indiana students and schools to achieve at higher levels.

Although pre-college remediation will be diminished for future Hoosier high school graduates, remedial education still will be necessary to support the developmental needs of our current adult population, particularly those adults without a high school diploma. Over the past several years, the Commission for Higher Education has supported the transformation of Ivy Tech's mission from a primarily technical college to a robust community college. A central part of this mission expansion has been an increased emphasis in serving the educational needs of Indiana's adult workers, a segment of the state's population that has been historically underrepresented in higher education and low in overall educational attainment. At the onset of this transformation, an ambitious goal was set to increase enrollment at Ivy Tech by 30,000 new students by the year 2009. Today, Indiana already has reached 91% of this goal.

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the Commissioner of the
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It should be noted that the transformation at Ivy Tech has optimized opportunities and partnerships in other sectors of the state's higher education structure. Most notably has been the realignment of the Indiana University and Purdue University systems to shift a large portion of remedial instruction to the local Ivy Tech campuses. Modeled after the successful "Passport" program between IUPUI and the Ivy Tech-Indianapolis campus, students who aspire to attend a regional four-year campus, but have deep remedial education needs, are provided with a prescriptive list of courses, which must be successfully completed at the local Ivy Tech community college. Once completed, these students are automatically admitted to the four-year campus. Such partnerships optimize the overall system by localizing remedial education in a sector that is least expensive to the student and the state.

Even with these promising developments, there is room for improvement. Remedial education must be repackaged and delivered to students in ways that depart from current and historical practices. Clearly, the approach of an isolated program or department offering remedial instruction separate from an actual degree program or certification just does not work. Most adult students do not come to college seeking remediation—they aspire to obtain an educational experience that will lead to a better job, a new employable skill base, or a specific degree. Our community colleges must find creative strategies that embed basic skill remediation directly into the academic and technical program courses, giving students a taste of what they came to experience. Additionally, we must find ways to deliver these programs in more manageable ways, providing these students (many of which are part-time and have been out of school for long periods of time) with timely milestones that provide immediate benefit and encouragement to continue.

Fortunately, Indiana has been able to break through the "chain of blame" that typically takes place across educational sectors and grade levels in regards to poor student preparation. In many respects, leaders from all levels of our educational system are realizing their roles and working together to achieve a common resolve—a continuous, synchronized education pipeline with complete commitment to student success. This means a solid foundation and expanded opportunity for Indiana's current and future students, their families, and communities.

CONCLUSION

Success during college and completion of a bachelor's degree is dependent upon students' level of preparation during high school. The quality of courses completed in high school is a greater predictor of college success than test scores, class rank, or grade point average (Barth, 2003). The relationship between high school preparation and college success is perhaps most evident in mathematics courses. Students who complete high school math courses higher than Algebra II double their chances of successfully earning a college degree (Adelman, 1999, cited in Barth, 2003). The initiatives to increase the rigor of the high school curriculum undertaken by Indiana through its participation in the American Diploma Project will likely contribute to a reduction in student participation in college remediation and an increase in the college persistence and completion rates of students. More can and should be done to ensure these objectives are realized.

RECOMMENDATIONS

1. *All high school students should have the option to take—and should be encouraged to take through their senior year—high-level mathematics, English, and science courses to prepare them for the rigors of college or the workforce.* Demanding participation in rigorous coursework through the senior year will help overcome the “senior slump.” Admission into Indiana colleges and universities should be contingent on student achievement in both semesters of the senior year.
2. *Increase access to AP and dual credit courses for minority groups and students from lower socioeconomic backgrounds.* Policymakers and educators must address the need for increased access to and participation in AP and dual credit courses, particularly for economically disadvantaged and minority students. Recent research suggests that minority students are positively influenced by AP courses. This is especially true when they are provided peer support by allowing cohorts of minority students to take the AP courses together.

3. *Curricular alignment between K-12 and higher education is needed.* The impending implementation of Core 40 as a requirement for both graduation and admission to an Indiana four-year postsecondary institution appears to be a strong step in this direction. Methods of assessment should be established to measure the impact of these policies once the first class held to these standards enters college in 2011.
4. *Use statewide tests given to students in high school for college admissions or placement purposes.* Efforts to include student scores on high school transcripts, including the Indiana e-Transcript, should be encouraged. Legislation to include results of Core 40 assessments as primary indicators of high school performance and make those results available to universities should also be supported.
5. *Hold high schools accountable in preparing high school graduates to be “work-ready” or “college-ready.”* The steps toward high school accountability in forming students who are ready for college-level coursework included in Indiana's ADP Network Action Plan provide a good foundation for encouraging high schools to lessen the need for remedial education. Strengthened emphasis on Core 40 requirements and assessments should foster more college-ready students, and exploration of best practices for institutional incentives and sanctions tied to improvements in degree completion should be encouraged and these best practices should then be implemented.
6. *The negative consequences of shifting remedial education from four-year to two-year institutions should be examined and addressed.* As remedial education in Indiana is reduced at four-year institutions and moved to two-year colleges, with soon-to-be implemented policies potentially strengthening this trend, caution should be taken to avoid creating a deeper divide between these two types of institutions and creating a “caste system” where two-year institutions are seen as remedial schools. Also, close monitoring should be applied to postsecondary institutions to ensure that achievement gaps do not increase as remedial education presumably decreases in four-year institutions.

END NOTES

1. Ranges in percentages occur due to different policies for different academic subjects.
2. As found in *Indianapolis Star* article by Hupp (2006), regarding admissions standards at Indiana University-Bloomington.
3. Race and ethnicity information for the 2000-01 class was missing for 16.9 percent of students, so was not deemed appropriate to judge racial or ethnic enrollment. Data for race and ethnicity were missing for 4.2 percent of the 2001-02 class, and 5 percent was missing for 2003-04.

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- ♦ **American Diploma Project**

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- ♦ **ADP Indiana Action Plan**

<http://www.achieve.org/achieve.nsf/StateProfiles-IN?OpenForm>

Indiana Commission for Higher Education

<http://www.che.state.in.us>

- ♦ **Stan Jones, Lessons for the States on the 'Expectations Gap', Chronicle of Higher Education, March 10, 2006.**

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- ♦ **Indiana's Postsecondary Indicators: 2004 Performance and Descriptive Indicators**

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