

IMIR

Enrollment Reports and Analysis

Fall 1999 Enrollment

Volume 5 Number 2, December 1999

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Highlights

Credit hour enrollment increased slightly (0.3%), eclipsing last fall's record high. Headcount enrollment

decreased slightly (0.8%), with an increasing proportion of full-time students accounting for the increase in credit hours.

Graduate and graduate/professional enrollments held steady overall, but were marked by substantial increases in master's degree program enrollments (up 6.4%) and substantial decreases in doctoral program (down 9.4%) and non-degree enrollments (down 4.3%).

The academic profile of IUPUI entering students improved slightly, led by a notable decline in the number of students coming to IUPUI from the bottom third of their high school class.

Total minority enrollment rebounded to 14.8% of IUPUI's entering class, compared to 13.9% in fall 1998.

IUPUI draws almost as many beginning freshmen from the surrounding counties as from the township school systems in Marion County.

Ivy Tech-Indianapolis became IUPUI's top transfer feeder institution, with Purdue, West Lafayette and Ball State University running second and third, respectively.

The retention rate of full-time, first-time freshmen declined slightly, due entirely to an increase last fall in the number of under-prepared students.

Freshman learning communities has a positive impact on student retention, even after controlling for background differences among participants and non-participants.

Working on campus has a positive impact on student retention, especially for students in their sophomore and junior years.

Overview

IUPUI enrolled slightly fewer students in fall 1999 compared to fall 1998 but those students enrolled for a record number of credit hours. These changes continue a recent trend toward larger percentages of full-time, traditional-aged students enrolling in IUPUI's undergraduate programs.

At the graduate level, enrollment changes have been less systematic. Master's degree program enrollments increased notably (6.4%) for the second consecutive year following three prior years of decline. Non-degree enrollments declined (4.3%) following a single year of growth. Doctoral program enrollments declined for the fourth consecutive year, while first professional program enrollments (MD, DDS, JD) remain relatively stable.

Given the record enrollment last fall of underprepared undergraduates (i.e., conditional admits), it is not surprising that the campus' low retention rate remains a problem. However, small but notable improvements in the fall 1999 entering freshman profile bode well for improvements in the coming year. Moreover, the Learning Communities program, which is now required of all new freshmen, appears to have a positive effect on freshman retention.

This year's enrollment report and analysis looks at some of these trends in greater depth. It monitors developments along several fronts, including where students come from, in what programs they enroll, and how they progress toward graduation. The companion report on degree and certificate conferrals examines trends in program completers through last year's graduating students.

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Compared to Other IU Campuses

Overall student enrollment at Indiana University increased by 0.1 percent to 92,599. As at IUPUI, overall credit hour enrollments increased at a faster rate (1.2%). Display 1 summarizes enrollments across the eight campuses of Indiana University for the fall 1999 semester. IUPUI is in the middle of the group with regard to enrollment changes. The Southeast campus experienced the largest percentage growth, followed by Bloomington. Notable enrollment decreases occurred at the Kokomo and South Bend campuses.

Display 2 shows ten-year trends in fall semester and annual enrollments at Bloomington, IUPUI, and the combined regional campuses. The recent increases at Bloomington and IUPUI follow a brief period of decline in the mid 1990s. Bloomington's recent increases in headcount and credit hour enrollments have followed closely, unlike at IUPUI, where the increase in full-time enrollments has resulted in steeper increases in credit hour enrollments than in headcount enrollments. The regional campuses as a whole have not recovered from the enrollment losses of the mid 1990s although, as Display 1 shows, enrollment changes differ greatly among the various campuses.

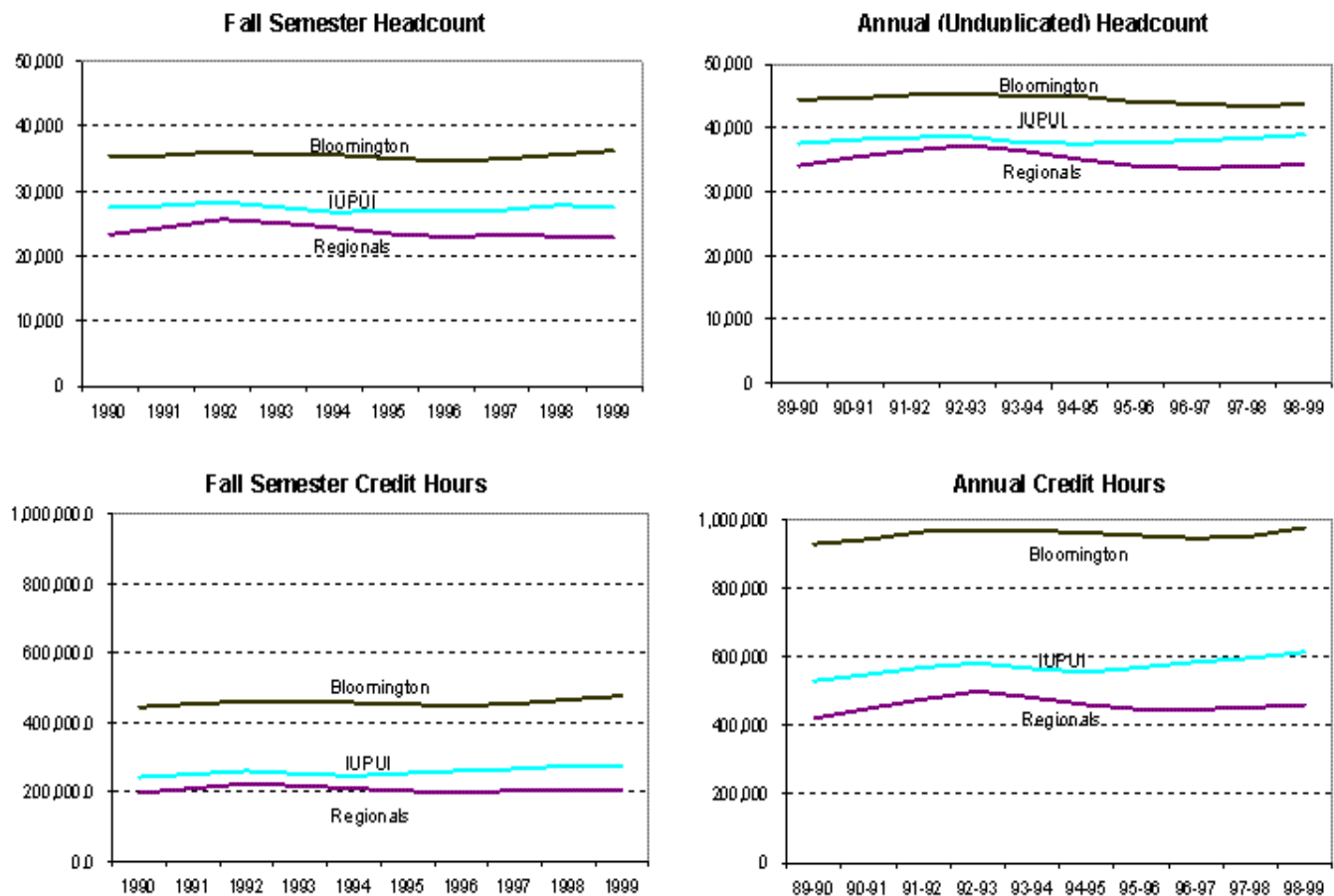
The right panels of Display 2 show that when considered over the entire academic year, Bloomington, IUPUI, and regional campus enrollments are closer in number. However, as the bottom right panel shows, the differences in credit hour production are larger. This is due to the relatively large number of students that IUPUI and the regional campuses serve during the summer sessions, when students tend to enroll for fewer credit hours.

Display 1. Fall 1999 Enrollment by Campus

	Headcount		Credit Hours		Pct. Change in Headcount & Credit Hours				
	Number	% Chg**	Number	% Chg**	-10.0%	-5.0%	0.0%	5.0%	10.0%
Bloomington	36,201.00	1.7%	476,429.5	2.2%					
IUPUI*	27,587.00	-0.8%	275,942.5	0.3%					
East	2,254.00	-1.1%	20,456.0	0.3%					
Fort Wayne**	5,990.00	0.0%	56,515.0	1.6%					
Kokomo	2,634.00	-5.8%	23,152.0	-4.3%					
Northwest	4,748.00	-0.9%	44,622.0	1.6%					
South Bend	7,070.00	-4.3%	61,422.0	-3.2%					
Southeast	6,115.00	5.2%	54,858.0	4.5%					
IU Total	92599	0.1%	1,013,397.0	1.2%					

*Includes IUPUI Columbus; **Includes enrollment in IU programs only;

***From Fall 1998 enrollment levels

Display 2. Fall Semester and Annual Headcount and Credit Hour Enrollment Trends at Indiana University

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Ten Year Enrollment Trends at IUPUI

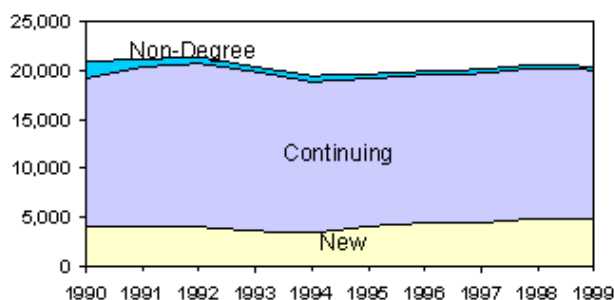
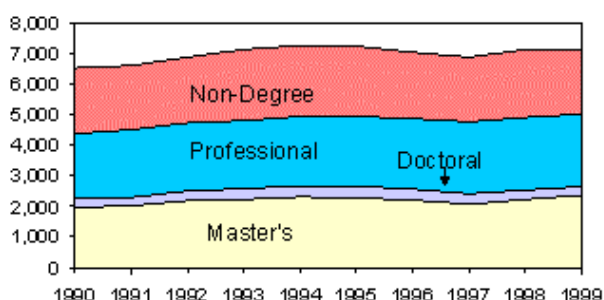
When examined in the context of the last ten years, undergraduate enrollments at IUPUI include a relatively large number of new students, a moderate number of continuing students, and very low non-degree enrollments. Display 3 shows these trends. The number of continuing students was negatively impacted by earlier declines in new students. Early decreases in non-degree enrollments resulted from changes in IUPUI admissions policies and practices. More recent changes reflect declining numbers of non-traditional students more generally.

Graduate enrollment trends are also mixed. Master's degree enrollments increased for the second straight year, while doctoral enrollments declined for the fourth consecutive year. IUPUI's large graduate professional programs in medicine, dentistry and law continue to attract enough students to meet enrollment targets. Non-degree, graduate enrollments decreased by over four percent following a single year of growth that had reversed a longer trend of decline.

Display 3. Ten Year Trends in IUPUI Enrollment by Student Level

Fall Semester	Undergraduate Students				Graduate/Professional Students					Total IUPUI
	Total	New*	Continuing	Non-Degree	Total	Masters	Doctorate	Professional	Non-Degree	
1990	20,971	3,952.00	15,277	1,742	6,547	1,969	297	2,120	2,161	27,518
1991	21,157	3,988.00	16,396	773	6,631	2,025	270	2,224	2,112	27,788
1992	21,446	3,997.00	16,758	691	6,899	2,196	320	2,227	2,156	28,345
1993	20,392	3,587.00	16,307	498	7,160	2,230	354	2,241	2,335	27,552
1994	19,483	3,340.00	15,527	616	7,283	2,316	368	2,277	2,322	26,766
1995	19,667	4,055.00	15,151	461	7,272	2,282	386	2,296	2,308	26,939
1996	19,950	4,408.00	15,164	378	7,081	2,214	358	2,312	2,177	27,011
1997	20,130	4,395.00	15,328	407	6,906	2,074	346	2,365	2,121	27,036
1998	20,667	4,854.00	15,421	392	7,154	2,233	309	2,381	2,231	27,821
1999	20,416	4,751.00	15,313	352	7,171	2,376	280	2,379	2,136	27,587
Percent Change										
Past year	-1.2%	-2.1%	-0.7%	-10.2%	0.2%	6.4%	-9.4%	-0.1%	-4.3%	-0.8%
Ten year	-2.6%	20.2%	0.2%	-79.8%	9.5%	20.7%	-5.7%	12.2%	-1.2%	0.3%

*Includes students who first matriculated during the preceding summer sessions

Undergraduate Enrollments, 1990-99**Graduate/Professional Enrollments, 1990-99**

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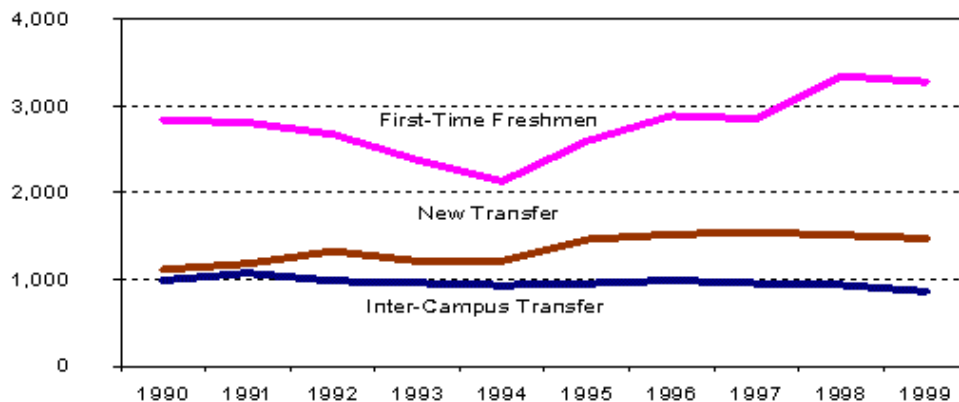
New Students

Ten-Year Trends

Recent increases in new freshman enrollments have more than made up for declines earlier this decade. Display 4 shows these recent trends. New transfer student enrollments have remained relatively high with small declines recently. Inter-campus transfers—that is, students who enroll in classes at IUPUI after having attended a different IU campus—have also declined slightly over the past three years, but the overall trend indicates relative stability.

Display 4. Ten-Year Trends in New Student Enrollments

Fall Semester	First-Time Freshman	Transfer	Inter-Campus Transfer	Total
1990	2,839	1,113	988	4,940
1991	2,808	1,180	1,073	5,061
1992	2,671	1,326	982	4,979
1993	2,377	1,210	959	4,546
1994	2,131	1,209	932	4,272
1995	2,595	1,460	951	5,006
1996	2,888	1,520	988	5,396
1997	2,852	1,543	956	5,351
1998	3,346	1,508	933	5,787
1999	3,278	1,473	860	5,611



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Entering Student Academic Profile

Reversing a recent trend, IUPUI's entering freshman class improved slightly in prior academic profile as reflected by the traditional measures of H.S. percentile class rank and SAT scores. Display 5 shows these modest increases, along with the attendant declining proportion of new freshmen admitted conditionally due to low test scores and high school grades.

Display 5 also shows the continuing increase in the number of high school units presented by new students. Changes in Indiana high school standards, such as the Core 40 curriculum initiative, have resulted in high school students taking more college preparatory courses. Recent studies have shown that taking more rigorous academic courses in high school is correlated with subsequent success in college, regardless of the grades that students earned in these courses.

The modest changes in entering student quality are due, in part, to IUPUI's work with Ivy Tech, Indianapolis to serve at-risk students more effectively. Starting in fall 1999, IUPUI referred to Ivy Tech many students coming directly from high school who placed in the bottom ten percent of their high school class. These students will be tracked closely and admitted to IUPUI if they complete successfully certain courses at Ivy Tech. As a result, IUPUI experienced a decline in the number of students originating from the lowest percentile ranks of their high school classes. Display 6 shows the impact of this change on the percentile rank distribution of students attending IUPUI.

Display 7 illustrates another impact of the increasing quality of students admitted to IUPUI this fall. The percentage of students placing into remedial courses in reading, math, and writing have all decreased notably this semester.

Minority student enrollment at IUPUI continues to climb modestly. Display 8 shows increasing numbers of new Asian American, Hispanic, and Native American students at IUPUI. The number of new African American

students declined slightly, paralleling the overall slight decline in new freshmen enrollments. The percentage of new African American students declined by 0.1 percent.

Display 5. Trends in Qualifications of Beginning Freshmen

	Fall Semesters				
	1995	1996	1997	1998	1999
Number of Beginning Freshmen					
IUPUI Total	2442	2766	2712	3186	3147
Direct/Dual Admits	437	416	403	400	432
University College Overall	2005	2350	2309	2786	2715
Regular Admits	610	590	607	522	634
Conditional Admits	1395	1760	1702	2264	2081
Percent Conditional					
Overall	57%	64%	63%	71%	66%
Minority	70%	75%	79%	87%	79%
African American	76%	80%	84%	90%	85%
Average SAT					
IUPUI Total	930	926	941	935	944
Direct/Dual Admits	1042	1041	1055	1084	1088
University College Overall	902	901	916	909	917
Regular Admits	984	1004	1005	1029	1020
Conditional Admits	852	855	874	874	879
Average Percentile Rank in High School					
IUPUI Total	51	50	50	49	51
Direct/Dual Admits	72	71	72	72	74
University College Overall	46	46	46	45	47
Regular Admits	64	68	68	70	71
Conditional Admits	38	38	38	39	40
Average Total High School Units					
IUPUI Total	14.4	14.6	15.0	15.3	15.9
Direct/Dual Admits	16.7	16.7	17.4	17.7	17.9
University College Overall	13.9	14.2	14.6	14.9	15.6
Regular Admits	16.5	16.9	17.3	17.7	17.7
Conditional Admits	12.8	13.3	13.5	14.2	15.0

Display 6. Trends in the Academic Quality of New Students who Recently Graduated From High School

H.S. Rank		Fall Semesters				
		1995	1996	1997	1998	1999
Top Third	N	585	695	693	785	799
	%	31%	31%	31%	30%	30%
Middle Third	N	774	834	845	972	1073
	%	41%	38%	38%	37%	40%
Bottom Third	N	397	505	530	690	621
	%	21%	23%	24%	26%	23%
GED/Others	N	129	183	158	169	191
	%	7%	8%	7%	6%	7%
Grand Total		1885	2217	2226	2616	2684

Note. Includes only those students who graduated from high school or earned a GED in the same year or year prior to their IUPUI matriculation date.

Display 7. Remedial Course Placement Rates among Beginning

	Fall 1996	Fall 1997	Fall 1998	Fall 1999
Reading Course Required	27.0%	23.9%	28.8%	20.1%
Remedial Math (M010, 001)	79.8%	81.4%	81.5%	77.6%
Remedial Writing	29.7%	21.5%	29.3%	16.3%

Note: Percentage based on the number tested. Writing figures exclude the ESL test. Population includes summer matriculants who enrolled fall semester.

Display 8. Minority Representation among Beginning Freshmen

	Fall Semesters				
	1995	1996	1997	1998	1999
Number of Beginners by Ethnicity					
Afrn Amer	247	328	314	355	345
Asian Amer	31	55	60	52	66
Hispanic Amer	33	50	28	31	45
Natv Amer	5	8	7	4	10
Total Minority	316	441	409	442	466
All Others	2126	2325	2303	2744	2681
Total Beginners	2442	2766	2712	3186	3147
Percentage Distribution of Beginners by Ethnicity					
Afrn Amer	10.1%	11.9%	11.6%	11.1%	11.0%
Asian Amer	1.3%	2.0%	2.2%	1.6%	2.1%
Hispanic Amer	1.4%	1.8%	1.0%	1.0%	1.4%
Natv Amer	0.2%	0.3%	0.3%	0.1%	0.3%
Total Minority	12.9%	15.9%	15.1%	13.9%	14.8%
All Others	87.1%	84.1%	84.9%	86.1%	85.2%
Total Beginners	100.0%	100.0%	100.0%	100.0%	100.0%

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The Origin of New Freshmen

The majority of new freshmen at IUPUI originate from high schools in the Indianapolis metropolitan area. Within the vicinity, the township school systems of Marion County provide the largest numbers of new students. But, as Display 9 shows, IUPUI is attracting an increasing number of students from the counties surrounding Marion. Hamilton, Hendricks, and Johnson Counties, in particular, are the largest feeder counties. This year, the largest percentage increases occurred for Hancock and Morgan Counties, respectively.

Ben Davis High School remains the single largest feeder high school for IUPUI, as shown in Display 10. Warren Central moved up several notches to place second this year, replacing North Central in that position. The top five high school feeders are rounded out by Center Grove and Carmel. Hamilton Southeastern joins the list of top feeders this year with the highest percentage increase. Only one IPS school, Arsenal Technical, appears in the top feeder list. A recent edition of the publication, *Research Brief* (High School to College Transition) showed that declining enrollments and lower college-going rates among IPS schools place them below most other area high schools in sending students to IUPUI, or any other college or university.

Display 9. Trends in Degree-Seeking Beginners by County of High School Attended

H.S. County	Fall Semester Entering Cohorts				% Chng.	
	1995	1996	1997	1998	1999	98 to 99
Marion						
IPS	222	211	180	195	188	-3.6%
Other	795	875	847	1117	1047	-6.3%
Total from Marion County	1017	1086	1027	1312	1235	-5.9%
Surrounding Counties						
Boone	27	38	55	67	57	-14.9%
Hamilton	140	179	174	199	194	-2.5%
Hancock	64	68	107	97	113	16.5%
Hendricks	171	184	194	203	209	3.0%
Johnson	150	184	187	200	210	5.0%
Morgan	86	105	93	87	100	14.9%
Shelby	33	55	45	59	54	-8.5%
Total from Surrounding Cou	671	813	855	912	937	2.7%
Other Indiana High School	490	560	534	629	626	-0.5%
All Others ¹	270	314	305	336	360	7.1%
Grand Total	2448	2773	2721	3189	3158	-1.0%

¹Out-of-state, GED, unknown, etc.

Display 10. Top Feeder High Schools - Beginners

	Fall Semester Entering Cohorts				% Chng.	
	1995	1996	1997	1998	1999	97 to 99
Ben Davis	131	152	111	171	148	-13%
Warren Central	92	73	89	96	118	23%
North Central	81	81	82	104	98	-6%
Center Grove	69	80	81	77	87	13%
Carmel	64	95	78	98	80	-18%
Pike	59	59	60	80	77	-4%
Franklin Central	33	58	64	75	74	-1%
Perry Meridian	44	52	75	74	70	-5%
Lawrence North	37	40	32	66	68	3%
Southport	53	58	56	83	67	-19%
Columbus North	60	65	43	69	63	-9%
Decatur Central	45	53	54	61	60	-2%
Arsenal Technical	45	58	45	50	57	14%
Brownsburg	61	61	49	60	57	-5%
Hamilton Southeastern	22	34	25	39	51	31%

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Origin of New Transfer Students

The top three transfer feeder institutions changed positions this year, with Ivy Tech, Indianapolis taking the lead. Transfer enrollments from the other top feeders—Purdue, West Lafayette; Ball State University; and Vincennes University—have declined. There were notable increases in the number of transfer students from the University of Southern Indiana and the Columbus campus of Ivy Tech. Display 11 shows these trends in transfer enrollments.

Display 11. Top Feeder Institutions - Transfer Students

	<i>Fall Semester Entering Cohorts</i>					<i>% Chng.</i>
	1995	1996	1997	1998	1999	98 to 99
IVY Tech - Indpls	73	94	88	100	134	34%
Purdue Univ. West Lafayette	88	99	98	133	123	-8%
Ball State University	102	131	117	154	100	-35%
Vincennes University	106	102	103	103	70	-32%
Univ. of Indianapolis	44	35	41	51	58	14%
Indiana State University	82	70	86	70	47	-33%
Univ. of Southern Indiana	14	21	34	28	39	39%
IVY Tech - Columbus	2	13	21	19	27	42%
Butler University	21	23	26	24	20	-17%

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School Enrollment Trends

Although overall enrollment at IUPUI changed very little, there were some notable changes in school enrollments. Display 12 shows the five-year trend in headcount enrollment by school.

The largest absolute change shown in this table resulted from a policy change. Students who attain junior-level standing, but have not yet entered a specific degree-granting program, are now placed into the School of Continuing Studies, instead of into the 'non-major' designation in the School of Liberal Arts.

Display 12 also shows the rapid emergence over the past two years of new degree programs in New Media and Public Health. New Media enrollments are now included within the School of Engineering and Technology but have been disaggregated in Display 12. Even without the New Media program, Engineering and Technology increased notably this past year, surpassing the School of Education as IUPUI's largest degree-granting academic school.

Other schools experiencing enrollment increases of more than three percent include Science, Business, and Liberal Arts (majors). Enrollments credited to 'Graduate, Non-Degree' increased by over seven percent, despite the overall decline of non-degree graduate enrollments. This can be attributed to the decline of school-based non-degree graduate enrollments.

University College, which serves the largest number of IUPUI students, had the largest absolute decrease in headcount enrollment. This decline can be related to a slightly smaller entering freshman class and the shifting of more advanced students to majors and to Continuing Studies. Declining enrollments in Allied Health can be attributed partly to the discontinuation of the undergraduate Physical Therapy program. Other notable declines occurred in Journalism, Education, and the Graduate School.

Display 12. Trends in Student Headcount by School						
Student School	<i>Fall Semester</i>					Pct. Chng. 1998 to 1999
	1995	1996	1997	1998	1999	
Allied Health	1136	1056	988	903	790	-12.5%
Business	1188	1165	1197	1232	1300	5.5%
Columbus	1413	1485	1492	1485	1530	3.0%
Continuing Studies	670	741	778	780	944	21.0%
Dentistry**	612	626	642	633	633	0.0%
Education	1952	2064	2052	2027	1884	-7.1%
Engr And Tech***	1982	1953	1936	1972	2195	11.3%
Majors	1982	1953	1936	1953	2042	4.6%
New Media Majors	0	0	0	19	153	705.3%
Grad Non-Degree	1446	1242	1173	1228	1317	7.2%
Graduate School	338	339	364	373	343	-8.0%
Herron School Of Art	542	586	676	686	681	-0.7%
Journalism	65	79	65	56	43	-23.2%
Law	835	836	862	887	884	-0.3%
Liberal Arts	1868	1643	1518	1365	1319	-3.4%
Majors	1275	1168	1172	1169	1214	3.8%
Non-Majors	593	475	346	196	105	-46.4%
Library, Info Science	149	177	206	188	184	-2.1%
Medicine	1110	1118	1119	1124	1136	1.1%
Music	2	17	12	19	11	-42.1%
Nursing	1477	1265	1081	1056	1029	-2.6%
Physical Education****	374	384	380	347	352	1.4%
Public & Envir Affairs	1057	1045	964	953	950	-0.3%
Public Health-Med	0	0	0	31	54	74.2%
Science	1427	1502	1446	1449	1552	7.1%
Social Work	544	554	526	542	557	2.8%
Transient	201	150	175	203	191	-5.9%
University College	6551	6984	7384	8282	7708	-6.9%
Grand Total	26939	27011	27036	27821	27587	-0.8%

includes Dental Aux Education, *includes New Media and EDDP, ****includes Rst/Ht/Inst/Tour Mgt

School trends in credit hour enrollments are summarized in Display 13. For some schools, like Engineering and Technology, increases in credit hours parallel increases in headcount enrollment. But for other schools, headcount and credit hour enrollments changes do not coincide. For example, Allied Health and Journalism had relatively large increases in credit hour enrollment, despite declines in headcount enrollment, as these two schools offered more service instruction to students from other schools.

The large credit hour enrollment declines in University College are related to the organizational restructuring of the developmental reading program. Therefore, the declining enrollments in University College reflect declining rates of reading remediation. University College's other course offering, the freshman seminar learning community, nearly doubled in enrollment.

Other notable credit hour enrollment declines occurred in the School of Education, the Graduate School, the School of Public and Environmental Affairs, and the School of Dentistry. Smaller declines are noted in the Schools of Physical Education, Law, and Social Work. Credit hour enrollments remained relatively stable in the two largest credit-producing schools—Liberal Arts and Science.

Display 13. Trends in Course Credit Hours by School

Course School	<i>Fall Semesters</i>				
	1995	1996	1997	1998	1999
Allied Health	7,347.5	7,045.0	7,198.0	6,817.0	7,211.0
Business	14,343.0	15,200.0	15,712.0	17,871.0	17,973.5
Columbus	11,487.0	12,836.0	13,224.0	13,115.0	13,802.0
Continuing Studies	131.0	134.0	280.0	245.0	266.0
Dentistry	8,156.5	9,035.0	9,021.0	10,662.0	10,251.0
Education	10,190.0	10,199.0	10,608.5	9,630.0	9,012.0
Engr and Tech	14,810.0	14,222.0	16,802.0	17,878.0	19,048.0
Graduate School	181.0	160.0	141.0	356.0	335.0
Herron Art	6,076.0	6,388.0	7,324.0	7,502.0	7,440.0
Journalism	844.0	892.0	760.0	932.0	952.0
Law	10,839.0	10,646.0	11,034.0	11,389.0	11,232.0
Liberal Arts	51,419.0	53,092.0	55,581.0	57,810.0	57,874.0
Medicine	20,791.0	20,905.5	20,416.5	18,869.0	19,058.0
Nursing	12,286.0	10,810.0	9,382.0	8,958.0	9,013.0
Physical Education	5,930.0	6,249.0	5,861.0	6,226.0	6,097.0
Public & Envr Affairs	7,570.0	7,868.0	7,600.0	7,607.0	7,240.0
Science	59,278.0	61,473.0	62,822.0	65,350.0	65,047.0
Social Work	6,280.0	6,665.0	6,372.0	6,222.0	6,156.0
University College	3,100.0	3,604.0	2,376.0	3,159.0	2,755.0
Education Crses ¹	3,100.0	3,604.0	2,376.0	2,594.0	1,805.0
UCOL Courses	0.0	0.0	0.0	565.0	950.0
All Others	3,160.0	3,484.0	3,823.0	4,473.0	5,180.0
Grand Total	257,319.0	264,511.5	268,714.0	278,230.0	278,697.5

¹Credit hours in the following EDUC courses have been moved to UCOL for all semesters: 100-200 level X courses, U206, F400, and for Fall 1999 only, F203.

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Freshman Retention

Freshman retention is defined as the percentage of first-time freshmen that re-enroll for the second year following entry. Display 14 shows the recent trend in this rate for all first-time freshmen and for the subgroups defined by course-load status (full-time and part-time) and entry status (dual, regular, and conditional admit). The rate for full-time students is the one commonly reported for federal, state, and other agency requirements (e.g., NCAA).^[1]

The full-time freshman retention rate dropped slightly this past year to 59.0%. However, when viewed by entry status subgroup, the rate climbed in each of the three categories (dual, regular, and conditional admits). Thus, the overall decrease is entirely attributable to the significantly larger proportion of conditional admits that entered in fall 1998. The overall full-time freshman rate is the only rate that declined among all those shown in Display 14, underscoring the impact of students' academic background on campus retention rates.

This point is further underscored by the summary presented in Display 15. This chart shows the retention rate for fall 1998 freshmen according to their high school percentile rank. Less than half of all students admitted from the bottom 10 percent of their high school classes are retained to the second year. For fall 1999, many in this group were referred for admission to Ivy Tech. The last column of Display 15 suggests that we can expect about a half percentage point increase in the retention rate as a result of this change in admissions practice. However, the rates in Display 15 also show that IUPUI would have to restrict enrollment well beyond the Board of Trustees criteria (50th percentile) to bring one-year retention rates to a level that compares with some of IUPUI's urban peers, as shown in Display 16 (fall 1997 data are the most recently available for comparative purposes).

^[1] The rates reported within this analysis differ slightly from those reported by Indiana University Enrollment Support Services as they have changed the definition of the entering cohort to include former high school enrollees and Summer I session matriculants. Overall trends remain consistent.

Display 14. Beginning Freshmen Retention to the Second Year (AS/BS Degree-Seekers)
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	1993	1994	1995	1996	1997	1998
Campus Summary						
TOTAL	55.7%	55.2%	57.2%	55.8%	54.1%	55.2%
Dual Admits	66.2%	66.9%	66.7%	67.6%	66.2%	67.9%
Regular Admits	59.8%	59.8%	64.9%	63.7%	59.3%	63.7%
Conditional Admits	50.7%	49.3%	51.8%	51.0%	49.4%	51.8%
TOTAL	51.4%	51.4%	52.0%	51.0%	53.2%	53.0%
Regular Admits	65.7%	65.4%	70.1%	67.4%	65.1%	66.9%
Conditional Admits	54.5%	54.7%	54.1%	55.9%	53.5%	54.4%

The Impact of Learning Community Participation on Student Retention and Fall Semester Grades

As in previous years, an analysis was conducted to determine the impact of Learning Community participation on retention, controlling for background differences among students who participated compared to those who did not. Linear regression was used to control for the impact of such variables as high school percentile rank, credit load, and age. That is, students who participated in Learning Communities in fall 1998 differed in systematic ways from those who did not participate. Since these pre-existing differences correlate with retention and fall grades, it is necessary to control for them when assessing the impact of Learning Community participation. It is important to note that this technique does not control for other important characteristics such as self-selection. However, this method provides a more reliable estimate of program impact than do raw (unadjusted) group differences in retention rates and fall semester grades.

When analyzing the impact of Learning Community participation on fall grades, age, high school percentile rank, minority status, conditional admit status, and whether the student applied for financial aid, emerged as significant prior condition predictors. Together, these predictors accounted for just over 15 percent of the variation among students in fall grades. Learning Community participation contributed significantly to predicting fall grades over and above these predictors, but it added less than one-half of one percent to the total variation predicted by the model. Moreover, an interaction was discovered between conditional admit status and learning community participation. The left columns and graphs of Display 17 show the unadjusted and adjusted average fall semester GPA for students who participated and did not participate in the Learning Community Program. These averages are shown separately for conditional and dual/regular admits.

For dual/regular admits, the difference in fall semester GPA between Learning Community participants and non-participants is not significant, suggesting that the program does not affect their fall grades. However, for conditional admits, Learning Community participants achieved significantly higher fall grades than non-participants, even after adjusting for the background factors.

Display 15. Retention by High School Rank, Fall 1998 First-Time Full-Time Beginners (AS/BS Degree-Seekers)

H.S. %ile Rank	# in Cohort	# Retained	% Retained	Cumulative % Retained
Top 10%	191	101	52.9%	52.9%
10-20%	254	130	51.2%	53.1%
20-30%	289	141	48.8%	51.9%
30-40%	248	128	51.6%	53.5%
40-50%	173	87	50.3%	53.8%
Bottom 10%	97	48	49.5%	54.3%
Total with Rank	2177	1301	59.8%	
No Rank	154	75	48.7%	

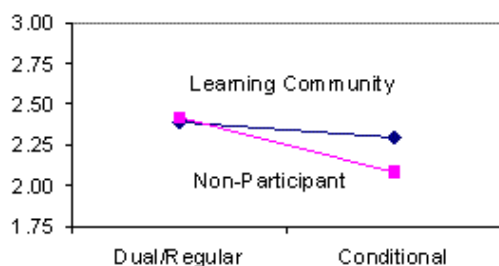
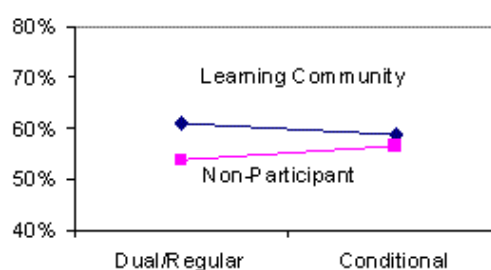
For the retention outcome, significant predictors included fall semester GPA, course credit load, age, and minority status. The pre-existing predictors accounted for 23 percent of the variation in the retention outcome (i.e., whether or not the student was retained). Learning Community participation added only one tenth of one percent to the predicted variation in retention. After adjusting for correlated background factors, Learning Community participation accounts for approximately a four-percentage point increase in the likelihood of student persistence. The right columns and graph of Display 17 shows an apparent difference of participation impact (i.e., an interaction) on dual/regular admits compared to conditional admits. However, this interaction, which suggests that the program had a more positive retention impact for dual/regular admits, was not statistically significant ($p = .19$). Rather, Learning Community participation had a significant positive impact for both dual/regular and conditional admits.

Display 16. Full-time Fall 1997 Freshman Retention Rates at IUPUI Peer institutions

Institution	Rate
University of Wisconsin, Milwaukee	72%
University of Cincinnati	70%
University of Houston	76%
University of Alabama, Birmingham	74%
Wayne State University	na
IUPUI	59%

Display 17. The Impact of Learning Community Participation on Freshman Retention Rates and Fall Semester Grades by Type of Admit

	Fall GPA		Retention Rates	
	Dual/Regular	Conditional	Dual/Regular	Conditional
<i>Unadjusted Rates</i>				
LC Participant	2.69	2.17	72%	58%
LC Non-Participant	2.68	1.90	62%	47%
<i>Adjusted Rates</i>				
LC Participant	2.39	2.30	61%	59%
LC Non-Participant	2.42	2.08	54%	57%

Adjusted Fall GPA by Type of Admit

Adjusted Retention Rates by Type of Admit


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The Impact of Success in Large Introductory Courses on Student Retention

As a commuter university, IUPUI students spend the majority of their time on campus in class. Student success or failure in introductory courses has a large impact on first-year student retention. Display 18 demonstrates this impact, showing the retention rates for students enrolled in the 25 courses that enroll the largest number of first-time freshmen. The display also includes the average H.S. percentile rank, average total SAT score, percent of sections taught by associated faculty, and the course DFW rate (as defined in the display notes).

An overall freshman retention rate is shown for each course. In addition, separate rates are shown for students who successfully complete and those who do not successfully complete these courses. The table is sorted by overall freshman retention rate, from lowest to highest.

Over all of these courses, students who receive a passing grade of C- or better are more than twice as likely to be retained compared to students who do not successfully complete the course. There is also a general pattern to the various rates shown in Display 18, albeit with some notable exceptions. Courses with high DFW rates tend to have low retention rates. Among these courses, there is a -0.53 correlation ($p < .01$) between DFW rate and overall retention. Furthermore, courses with higher retention rates tend to have smaller differences in retention between successful completers and non-successful completers. That is, for courses with relatively high DFW rates, even successful completers are more at-risk for terminating their studies at IUPUI.

This finding suggests that differences in retention rates may have more to do with the backgrounds of the students entering the courses, than with course grades. This hypothesis is supported by the observed relationship between the student academic background variables (H.S. percentile rank and SAT score) and the two DFW rate and retention rate outcomes, as shown in Display 19. Both academic background indicators are not significantly correlated with the course DFW Rate, suggesting that the average academic profile of students in the course does not affect the course's overall DFW rate. However, both academic background indicators, and especially H.S. percentile rank, are significantly correlated with the retention rate of students enrolled in these courses. As the better predictor, the average H.S. percentile rank for a course accounts for 50 percent of the variation in course retention rates. (The square of the correlation coefficient indicates the percentage of variation shared between the two variables).

Since the academic background variables are not correlated with the course DFW rate, and both the DFW rate and the academic background variables are strongly correlated with the course retention rate, these two factors can be seen as independent predictors of retention. That is, although the academic profile of students enrolled in a course will impact retention more than the DFW rate, the DFW rate has an impact on retention over and above the academic profile. Taken together, average H.S. percentile rank and course DFW rate account for 73 percent of the variation in course retention rate. The DFW rate accounts for almost an additional 25 percent of the variation above the 50 percent accounted for by H.S. percentile rank.

Display 18. First-Time Freshman Retention Among the Top 25 Courses in First-Time Freshman Enrollment
(sorted by overall freshman retention rate)

Dept	Course	N of 1 st Time Freshmen	Avg. H.S. Pct Rank	Avg. Total SAT Score	Pct. Taught by Associate Faculty	DFW Rate ^a	One-Year Retention Rate			
							All 1 st Time Freshmen	Successful Completers ^b	DFW Recipients	Difference
Mil	G101	144	41	926	100	39.6	41.7	50.6	28.1	22.5
Pol	Y103	86	40	994	15	47.7	45.3	53.3	36.6	16.7
Soc	R100	181	42	934	11	47.2	46.2	63.2	27.1	36.1
Spea	J101	86	42	930	5	47.7	46.5	64.4	26.8	37.6
Anth	A104	105	48	929	2	36.5	47.1	57.6	28.9	28.7
Psy	B105	163	42	947	51	57.9	47.2	67.2	32.6	34.6
Math	001	1613	39	877	100	37.1	48.7	61.2	27.4	33.8
Cpt	106	96	44	866	95	25.5	49.0	60.0	16.7	43.3
Educ	X150	293	37	775	78	33.7	49.5	62.2	24.5	37.7
Educ	X152	375	39	842	100	29.4	50.8	62.9	21.8	41.1
Bus	X490	324	43	950	88	25.0	51.6	60.5	24.7	35.8
Bus	X100	325	43	951	1	21.1	53.2	61.2	23.5	37.7
Hist	H113	82	43	1012	5	40.2	53.7	69.4	30.3	39.1
Comm	C180	131	45	951	91	22.5	54.2	65.0	17.2	47.8
Eng	W001	372	41	966	78	25.0	55.4	64.9	26.9	38.0
Ucol	U110	427	48	941	23	31.1	56.2	69.9	25.8	44.1
Psy	B104	627	45	938	42	37.6	56.4	71.2	31.8	39.4
Comm	R110	296	49	981	81	30.4	56.4	67.5	31.1	36.4
Bus	A100	135	45	947	24	31.1	57.0	67.7	33.3	34.4
Math	111	550	54	1005	100	26.4	58.0	64.4	40.0	24.4
Eng	W131	1014	49	846	88	29.4	58.3	70.7	28.5	42.2
Tech	102	93	45	965	37	21.5	60.2	69.9	25.0	44.9
Educ	W200	100	52	918	92	28.0	61.0	73.6	28.6	45.0
Chem	C105	81	73	1127	0	39.5	63.0	79.6	37.5	42.1
Sci	120	110	63	1070	36	28.2	64.5	75.9	35.5	40.4
Overall		7809	45	916	71	33	53	65	29	37

Notes. Data are for courses taught at the Indianapolis campus only.
Includes courses with the largest enrollments in the student's first semester
Students receiving grades of I, NC, P, or S have been excluded.

^aBased on number students who receiving a grade of D or F, or who withdrew from the course after the first week of the semester

^bSuccessful completers are those receiving a grade of A+ through C-.

Display 19. Correlation Between Average Academic Background Indicators and Course DFW and Retention Rates

	DFW Rate	Retention Rate
Average H.S. Percentile Rank	-0.13	0.72**
Average Total SAT Score	0.08	0.46*

*p<.05; **p<.01

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The Impact of On-Campus Employment on Retention

Research on traditional student populations has demonstrated that the impact of employment on student retention depends on the location of employment. Working off-campus decreases the likelihood that a student will persist in college. Working on-campus increases the likelihood that a student will persist.

Display 20 illustrates the positive impact of on-campus employment for IUPUI students. This display shows the retention rates of undergraduate students according to their course load status (full- vs. part-time) and class level. It also distinguishes students according to their on-campus employment

status (full-time, part-time work-study, part-time other, or not employed on campus).

Most students who worked on campus and attended classes at IUPUI last fall were full-time students and part-time employees. This category included over 1,000 students, with 350 of them receiving work-study as a form of financial aid. The next largest category included 265 students who worked full-time and attended school part-time. A slightly smaller number (236, including 52 work-study) worked part-time and attended class part-time. Relatively few students (49) worked at IUPUI full-time while enrolled in a full course load.

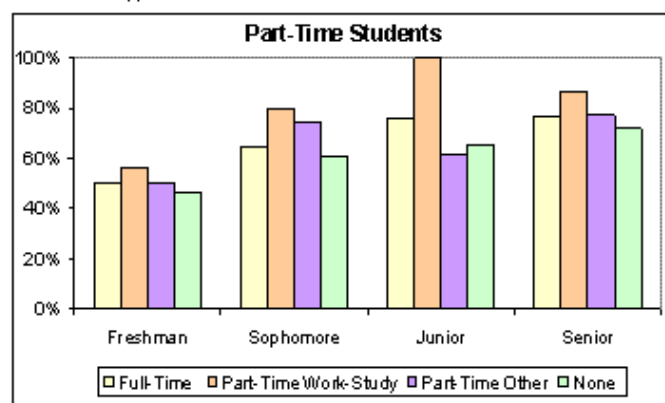
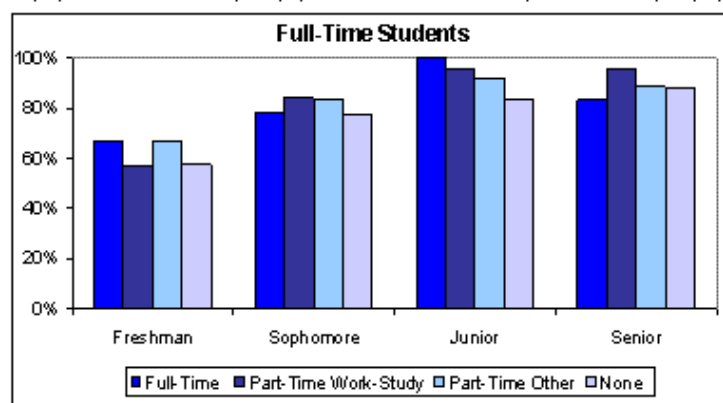
Virtually all groups of IUPUI student/employees were retained at a higher rate than IUPUI students who do not work on campus. The only exception is among the small group of seniors who work and attend school full-time. Also, in most cases, working part-time at IUPUI has a more positive effect on retention than working full-time. It is very possible that full-time work interferes with school work and so mitigates the positive impact of having both types of affiliation with the campus.

The positive impact of working at IUPUI on student retention appears to be largest in the sophomore and junior years. The retention rate among all seniors is relatively high and so working on-campus does not have as big an impact. Work-study participation in particular impacts student retention more so after the freshman year than in the freshman year.

Display 20. The Impact of On-Campus Employment on Student Retention

Fall 1998 IUPUI Enrollment Status		IUPUI Employment Status		Fall 1998 Class Standing							
				Freshman		Sophomore		Junior		Senior	
N	One-Year Retn Rate	N	One-Year Retn Rate	N	One-Year Retn Rate	N	One-Year Retn Rate	N	One-Year Retn Rate	N	One-Year Retn Rate
Full-Time	Full-Time	6	66.7%	14	78.6%	11	100.0%	18	83.3%	49	83.7%
	Part-Time Work-Study	120	56.7%	95	84.2%	49	95.9%	86	95.3%	350	79.1%
	Part-Time Other	129	66.7%	189	83.6%	135	91.9%	212	88.7%	665	83.6%
	None	4046	57.4%	2539	77.6%	1499	83.3%	2191	88.1%	10275	72.7%
Part-Time	Full-Time	48	50.0%	101	64.4%	38	76.3%	78	76.9%	265	67.2%
	Part-Time Work-Study	16	56.3%	10	80.0%	11	100.0%	15	86.7%	52	78.8%
	Part-Time Other	28	50.0%	47	74.5%	21	61.9%	88	77.3%	184	70.7%
	None	2698	46.6%	2530	60.9%	1143	65.5%	2064	71.9%	8435	59.6%

Note: Full-time employees include appointed staff and full-time academic appointments with active appointments anytime during the 1998-99 academic year. Part-time employees were identified by the payroll office and include hourly and work-study employees with active appointments as of 11/1/1998.



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Conclusions

Like many colleges, regionally and nationally, IUPUI is experiencing an increase in traditional undergraduate student enrollments. This shift in demographics is expected to continue for the next five to seven years. At the same time, IUPUI has experienced a decline in non-traditional enrollments. The

non-traditional population is not likely to rebound as long as the area economy remains strong. In addition, there is an expanding array of higher education choices available to the non-traditional learner, as distance education opportunities continue to expand exponentially.

IUPUI is well positioned to maintain its current undergraduate enrollment levels, while increasing the entering student academic profile over the next few years. The growing articulation of students from Ivy Tech-Indianapolis suggests that students are responsive to increased numbers of transferable courses and programs and better marketing strategies. Tracking the return of less-prepared students referred to Ivy Tech will indicate whether the program holds promise for promoting the success of these students. In addition, through the strategic use of institutional scholarship aid IUPUI hopes to attract increasing numbers of better-prepared new students. However, IUPUI's current levels of institutional financial aid fall well below the level of many of our peers and certainly far below that offered by the Bloomington campus.

One significant constraint to attracting better-prepared, traditional-aged undergraduates to IUPUI is the lack of campus or campus-area housing for students. IUPUI's peer urban institutions average over 2,000 campus-housing units, compared to just over 500 at IUPUI. Expanding campus housing opportunities, as well as increasing the amount of space for out-of-class studying and socializing, are high priorities for IUPUI. Given the time necessary for such projects to reach fruition, schools and departments should consider more immediate ways to make space available for out-of-class activities among students.

Graduate level enrollments are likely to remain strong at IUPUI, especially within our large professional programs. Doctoral program enrollments are more troublesome in light of nationwide doctoral program enrollment declines. One important factor in the further development of graduate programs at IUPUI is their linkage with regional economic development. IUPUI's advantage as an urban university is in the close linkage between our graduate programs and both the on-site training and subsequent employment opportunities available to students enrolled in these programs. This is especially true in serving citizens of Central Indiana who seek to advance in their careers, or change careers, while maintaining their family commitments.

In recent months, IUPUI administrators, faculty and staff have been working to develop a plan for shaping IUPUI enrollments in light of the State of Indiana's Community College Initiative (see, <http://www.hoosiers.iupui.edu/plan/prac/2000.html>, for an executive summary of the plan). The recommendations offered in this plan will require significant actions among all departments, schools, and administrative units that participate in attracting, retaining, and supporting IUPUI students. IMIR will continue to monitor and analyze enrollments at IUPUI in support of these initiatives.

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For Further Details

This enrollment report and analysis provides an overview for the IUPUI campus. The Office of Information Management and Institutional Research provides this analysis as part of its Fall Enrollment Report series. This series also includes a set of tables regarding fall 1999 enrollments and enrollment trends over the past five years. IMIR also generates profile and trends reports for each academic school and for IUPUI Columbus. Copies of these reports are circulated to campus executive administrators, school deans, and faculty and staff who serve on campus committees concerned with academic and student affairs. IMIR also encourages members of the campus community to request more specific views of these and other relevant institutional data by contacting our office by phone (278-2282), or by using the ["Information Request"](#) form on our web page.

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