This is the second report by the Indiana Project on Academic Success (IPAS) on student transfer at public institutions across Indiana. To support the development of policies and practices enhancing the educational attainment of Hoosiers, IPAS is providing to policy makers and educators information on the ways students move among and through Indiana’s postsecondary educational institutions.

With data provided by the Indiana Commission for Higher Education (ICHE) and the State Student Assistance Commission of Indiana (SSACI), we focus in this report on the cohort of first-time, first-year students enrolled in associate’s degree programs at Ivy Tech Community College of Indiana (ITCCI)—the state’s community college system—in fall 2000. We follow this cohort of 7,755 students through the 2005–2006 academic year to see which students transferred and which institutions they transferred to, with particular interest in transfer from the community college to a baccalaureate-degree-granting institution. To begin, we look at prevalence of transfer and transfer destination disaggregated by selected characteristics such as gender or income (pages 2–3). Next, we look at patterns in the timing of transfers and in the completion of credits among transfer students (pages 4–5). Our analysis concludes with an exploration of the relationships among credit completion, timing of transfer, and degree completion (pages 6–9).

Executive Summary

Of the students who began at ITCCI in 2000, only slightly more than 5 percent transferred. Consistent with patterns nationwide, 18 percent of this cohort earned some type of postsecondary credential by 2005-2006. While only 2 percent earned a bachelor’s degree, the 31 percent who transferred to a four-year college or university earned a baccalaureate degree, compared to the 10 percent who transferred to another two-year institution. Most transfers occurred after three years of enrollment, and students were more likely to transfer if they were of traditional age, from higher income families, and female. The academic momentum of students who transferred after two years was fairly constant, whereas the momentum slowed among students who transferred after one year. The relationship between academic momentum and degree completion holds, however, regardless of transfer status. For students who intend to earn a degree, consistent academic momentum—particularly in the first years of enrollment—is among the most important factors in degree completion. Although this simple descriptive study does not identify which socioeconomic factors influence transfer and success after transfer, the findings support the hypothesis that higher family income is associated with a student’s greater access to higher cost institutions, a wider range of choices among institutions, better academic preparation, and greater overall mobility.
DEFINITIONS, METHODS, AND LIMITATIONS

For this study we define transfer students as students who were reported to ICHE by their institution between the 2000 and 2005 academic years as transfers. ICHE instructs campuses to report as transfers “students who have enrolled for the first time at the reporting campus, but have received previous credit while enrolled at another campus” and “students transferring from one campus to another, within the same institution, in pursuit of the same or similar degree” (2006, p. 14). Two-year institutions are defined here as those that award up to an associate’s degree and four-year institutions as those that award baccalaureate degrees or higher. A technical appendix provides further detail and explanation of our methods.

Absent student information systems data from independent and proprietary institutions, we cannot determine whether a student who has left a public institution and did not apply for aid enrolled in one of these types of institutions. Access to data from independent colleges could help improve statewide understandings of student mobility. Similarly, we are unable to include in our figures students who transferred to a public institution out of state. For these reasons and because campuses did not systematically report intracampus transfer in 2000 (e.g., moving from one ITCCI campus to another), our figures here likely understate the number of students who transferred to two-year institutions.

FINDINGS

Transfer by Selected Student Characteristics

Of the students who began in 2000 at a campus of Ivy Tech Community College of Indiana, 397 students in total, or 5.1 percent, transferred by the end of the 2005-2006 academic year. Transferring at the highest rates were women students, students under 21, students from families with an adjusted gross income (AGI) of $79,000 or more, and students who had earned a regular high school diploma. Among the least likely to transfer were students who were men, older than 36, from families with AGIs less than $19,000, and with no reported high school diploma type.

Transfer Destinations by Selected Characteristics

When we looked at the destinations to which students transferred disaggregated by the same characteristics as selected above, we found that eight students in the 2000 cohort had transferred more than once by the 2005-2006 academic year. Among these transfer students, we considered only the first institution to which they transferred. Among all students who transferred, transfers to four-year institutions (compared to two-year institutions) were slightly higher among students who were women, under 21, from families with AGIs of $79,000 or more, and who had earned a regular high school diploma. Transfers to other two-year institutions were greater among students who were men, between 25 and 29, from families with AGIs less than $42,000, and with no reported high school diploma.
Transfers to four-year institutions were higher among women, younger students, students from wealthier families, and students with a regular high school diploma.

Transfers to two-year institutions were greater among men, older students, students from lower-income families, and students with no reported high school diploma.
The largest proportion of transfers occurred after three years at ITCCI and most of these students went to four-year institutions.

### Timing of Transfer by Destination

Looking at the timing of when students transferred by destination, we found that the greatest number of students who transferred to four-year institutions did so after three years of enrollment at ITCCI, followed by students who had been enrolled for one, two, five, and four years. Specifically, 83 students who transferred to a four-year institution did so after three years of enrollment. Among students who transferred to a two-year institution, the greatest number—28—did so after three years of enrollment. Students who eventually transferred to a four-year institution did so in the greatest numbers after their first or third year of enrollment. This is not surprising, given that completing requirements for associate’s degrees or general education typically takes two to three years. Among the students who transferred to another two-year institution, there is little variation in the timing of transfers.

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Transfer and Credit Completion

Next, we wanted to better understand the relationship between the timing of transfer and completion of course credits. Below, we show the average total number of credits earned by the point at which the student transferred. Students who transferred after two and after three years of enrollment earned on average 95 and 91 credits respectively by the end of the 2005 academic year. Students who did not transfer earned on average 37 credits by 2005.
Students who transferred after three years or longer took more credits initially and then fewer credits till they transferred.

Then, after transfer, their number of credits increased dramatically.

Credits Earned and Progress Toward Degree

Looking at the total number of credits earned by the end of the 2005-2006 academic year may obscure differences in year-to-year progress toward degree. To clarify these differences, we show below the average number of credits earned annually by the number of years after which a student transferred. For example, the group of students who began at ITCCI in 2000 and transferred after three years of enrollment is designated as “After Three Years.” One of the most striking patterns we found is that students who transferred after three, four, or five years took more credits initially (between 17 and 19) and then took fewer credits each subsequent year until they transferred—when the average number of credits increased significantly. In contrast, students who transferred after two years appear to have made more consistent progress toward a degree than students who transferred at any other point. The average number of credits earned each year is indicated in the figure. Students who transferred after one year of enrollment—although they earned more credits per year on average—have a credit completion pattern similar to that of students who did not transfer, i.e., a consistent decline in credits completed each year.

Credits Earned in Relation to Year-to-Year Progress Toward a Degree
Transfer and Degree Completion

Looking at the relationship between transfer, earning credits, and degree completion, we found that of the 7,755 students in the cohort that started in 2000 at ITCCI, 6,364—or 82 percent—had not earned any degree or certificate by 2005. In total, 1,391 students—18 percent—had earned a postsecondary credential, with 1,207—16 percent—of those students earning an associate’s degree or certificate and 184—2 percent—earning a bachelor’s degree.

Eighty-two percent of ITCCI’s 2000 cohort had not earned any degree or certificate by 2005.
Transfer Patterns in Relation to Total Earned Credits

When we look at the pathways toward earning a postsecondary credential differentiated by degree and transfer outcomes we find contrasting patterns of credit completion. Not surprisingly, students who earned a certificate or degree had more credits on average than those who did not. Consistent with the finding that most transfer students—78 percent—went to a four-year institution, we found that students who transferred and earned a degree had an average total of 130 credits—about what we would expect for a four-year degree. Students who did not transfer but who earned a certificate or degree earned 79 credits on average. Interestingly, students who completed degrees—regardless of whether they transferred from ITCCI to a four-year institution—were enrolled for nearly the same number of years. Students who transferred and earned a degree were enrolled for an average of five years, whereas those who did not transfer but who completed a degree were enrolled for an average of four years. Finally, we note that degree completers earned more credits during the summer session than those that did not. On the whole, these findings convey the importance of consistent academic momentum in earning a degree regardless of whether a student transfers.

Transfer Patterns by Total Credits Earned

Regardless of whether a student transfers, these findings convey the importance of consistent academic momentum in earning a degree.
Academic Momentum and Transfer Behaviors

Looking at academic momentum year-by-year along degree and transfer outcomes we find that students who earned degrees—regardless of whether they transferred—earn more credits early on than their peers who do not complete a degree. Though all groups (degree recipients and nonrecipients and transfers and nontransfers) earned between 12 and 21 credits their first year noticeable differences emerge in subsequent years. For example, students who did not complete degrees (including those who transferred) took fewer average credits after their first year, though students who transferred tended to level off around 10 credits in their third year. Again, we find that—consistent with the finding that most students who transferred did so to a four-year institution—degree recipients who transferred tended to earn more credits each year than any other group.
Conclusions and Implications

Although care must be taken when interpreting and generalizing simple descriptive results, we find some interesting patterns of transfer and degree completion among students who began at the Ivy Tech Community College of Indiana in 2000. Relatively few of these students—only slightly more than 5 percent—transferred to another institution. Just 18 percent of the 2000 cohort earned any type of postsecondary credential by the 2005-2006 academic year and only 2 percent earned a bachelor’s degree. It is important to note here that although our initial population consisted of students who were reported to be enrolled in an associate’s degree program, we have no way of knowing whether these students intended to earn an AA or if they were simply classified as such for administrative purposes. Future studies should consider students’ intentions related to earning a degree. Given the workforce development role of ITCCI, it is possible and perhaps likely that most students who enroll at its campuses do not intend to earn a degree or certificate.

Nonetheless, consistent with nationwide patterns, most students who began their postsecondary education at ITCCI did not earn a postsecondary credential in the following five years. Among students who transferred to a four-year college or university, however, 31 percent—100 students—earned a baccalaureate degree. In contrast, just 10 percent of students who transferred to another two-year institution earned a postsecondary credential, demonstrating that postsecondary completions differ relative to transfer destinations.

Other important differences in this study emerged among transfer student characteristics and behaviors, especially with regard to timing of transfer and credit completion.

- Traditional-age students and students from families with adjusted gross incomes greater than $79,000 transferred at the highest rates, and they transferred in greater proportion to four-year institutions.

- Women were more likely than men to transfer, although transfers to four-year institutions were nearly equal between men and women.

Looking at timing of transfer we found that

- Most students who transferred did so after three years of enrollment, followed by those who had been enrolled one year, and then two years.

- Students who transferred after two years earned the greatest number of credits on average (95) by the end of the 2005-2006 academic year, followed by students who transferred after three years (91), and four years (82).

- Students who transferred after just one year earned fewer credits on average.
• Students who transferred after two years earned credits more consistently year to year than any other group. By comparison, students who transferred after one year earned progressively fewer credits.

The academic momentum of students who transferred after two years appeared fairly constant, whereas the momentum of their one-year-transfer counterparts slowed. Interestingly, the academic momentum of students who transferred after four or five years slowed as they approached transfer but then increased after transfer.

Disaggregating transfer and nontransfer students further by degree outcome, we found that the relationship between academic momentum and degree completion holds, regardless of transfer status.

• Students who earned degrees remained consistent with regard to credit completion from start to finish.

• Degree completers also earned more credits on average during summer session than their peers.

• Finally, it appears that consistent credit-taking in the initial years of enrollment plays an important role in degree completion. Students who completed degrees earned close to 20 credits during their first academic year and then increased the number of credits they took during their second year. This relationship between degree completion and earning around 20 credits in the first year of college is consistent with prior research by Adelman (1999).

For students who intend to earn a degree it appears that consistent academic momentum may be among the most important factors contributing to degree completion. While this finding is not unexpected—since students earn degrees by accumulating credits—the relationship of timing of transfer to credit completion may point to the importance of students having specific plans about how and when they expect to transfer. For example, given the relatively lower level of credit completion by students who transferred after their first year, students might be well advised to postpone transferring until after completing two years at ITCCI.

Finally, the differences found in transfer patterns by income and gender also point to the effects of sociocultural and economic contexts on student enrollment and educational attainment. Although from this simple descriptive study we cannot be sure which specific sociocultural and economic factors influence transfer and success, we might reasonably hypothesize, for example, that a higher income is associated with access to higher cost institutions (i.e., more choices), better academic preparation, and greater overall mobility.
TECHNICAL APPENDIX

Data: Sources

Data used in this report come from the Indiana Commission for Higher Education (ICHE) Student Information System (SIS) and the State Student Assistance Commission of Indiana (SSACI). Transactional data from all public postsecondary institutions are reported to ICHE and compiled in a longitudinal student unit record database that can be used to track students throughout the state. These SIS data were the primary source of enrollment information for this report.

SSACI is responsible for overseeing the Free Application for Federal Student Aid (FAFSA) for all Indiana citizens as well as for administering a number of state scholarship programs. FAFSA data from SSACI contain information about the institution where a student is enrolled as well as student and family characteristics such as parental education, family income, and students’ educational expectations.

Cohort: Definition

This analysis focused on the cohort of first-time, first-year students who enrolled in associate’s degree programs at Ivy Tech Community College of Indiana (ITCCI)—the state’s community college system—in fall 2000 (n=7,755). Specific variables and selection criteria used in the SIS database (2005-2006 data dictionary definitions) are provided below.

- Entry type in 2000=2
- Student level in 2000= 4 or 6

Our selection criteria for the cohort excludes students who—through dual enrollment in high school or Advanced Placement courses—may have been first-time entrants classified as sophomore and enrolled in associate’s or baccalaureate degree programs (student level= 5 or 7). Finally, our cohort definition also excludes students who were dual-enrolled (those completing high school while enrolled in college).
Campus Sector: Definition

Institutions were grouped using their FICE codes into campus sectors according to similarities in institutional missions or purposes. The campus sectors and the specific institutions within them are provided below.

- **State University:** Ball State University, Indiana State University, University of Southern Indiana
- **Regional University:** IU East, IU Northwest, IU South Bend, IU Southeast, Indiana University–Purdue University Fort Wayne, Purdue University Calumet, Purdue University North Central
- **Research University:** Indiana University Bloomington, Purdue University West Lafayette
- **Urban University:** Indiana University–Purdue University Indianapolis
- **Two-year College:** Ivy Tech Community College of Indiana (all campuses), Vincennes University

Transfer Student: Definition

This report defines transfer students according to ICHE’s *Student Information System Instructions and Definitions* (2006), which instructs campuses to report as transfers “students who have enrolled for the first time at the reporting campus, but have received credit while enrolled at another campus” and “students transferring from one campus to another, within the same institution, in pursuit of the same or similar degree” (p. 14). We used the entry variable (entry type=3) for the 2000-2001 to 2005-2006 reporting years to determine whether a student transferred at any point during the academic period. This enabled us to determine whether a student transferred and, if so, how many years after the first year the transfer occurred.

It is important to note that some institutions—particularly multicampus systems like Purdue University, Indiana University, and Ivy Tech Community College of Indiana—may not systematically report students who move intra-institutionally as transfers. Thus, in using the ICHE definition of transfer we may have underestimated the number of transfer students.