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Whitney Ruble provided research assistance on this project.



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AN EXPLORATORY ANALYSIS

Educational Attainment in Indiana

The level of educational achievement among Hoosiers has long been a troubling issue for those worried about future prosperity. However, the dynamics of schooling in Indiana paint an uneven picture about success in K-12 schooling and higher education.

Indiana suffers from a low ranking among the states in the percentage of the population with a bachelor's degree or higher, sitting firmly within the bottom 20 percent. In contrast, the state is in the top third with respect to bachelor's degrees conferred (14th out of 50 in 2005). The state has numerous nationally ranked programs at its universities, indicating high quality. Indiana's public and private colleges and universities confer over 50,000 bachelor's and higher degrees annually, but Indiana has a relatively low ranking in terms of the percentage of college-educated population. This begs the question: Do large shares of students who are educated at Indiana's universities leave the state after graduation? Are people moving into the state less educated than those moving out of the state? The goal of this policy brief is to investigate factors that influence the proportion of Indiana's population with a bachelor's degree.

INTRODUCTION

The Indiana Commission on Higher Education (ICHE) lists 50 campuses of public and independent institutions of higher education granting

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four-year degrees and 27 campuses of institutions granting only two-year degrees.1 While ICHE classifies three universities as research institutions (IU, Purdue and IUPUI), the Carnegie Foundation ranks Ball State University in the same research category as IUPUI, and ranks the University of Notre Dame with IU and Purdue as research institutions.

Indiana is ranked 44th out of 50 states and the District of Columbia with just over 19 percent of the population holding a bachelor's degree or higher, so 43 of the 50 states and D.C. have more college graduates as a percentage of the population than Indiana. The District of Columbia has the highest percentage (39 percent), while West Virginia has the lowest percentage (14.8 percent). See Table 1 for the rankings. With the exception of Kentucky, all the states surrounding Indiana rank higher in terms of the population share with a bachelor's degree or higher.

A variety of factors influence this percentage. Both domestic and international migration may affect the number and proportion of persons with a bachelor's degree. If in-migrants are less educated than out-migrants, then the proportion of the population with higher levels of education

¹The tally counts each campus of Indiana University, Ivy Tech Community College and Purdue University separately.

TABLE 1. PERCENTAGE OF POPULATION WITH BACHELOR'S DEGREE OR HIGHER

Ranking	State	% of pop. with bachelors degree or higher	Ranking	State	% of pop. with bachelors degree or higher
1	District of Columbia	39.07	27	Texas	23.24
2	Massachusetts	33.19	28	Maine	22.87
3	Colorado	32.69	29	North Carolina	22.46
4	Maryland	31.45	30	Wisconsin	22.42
5	Connecticut	31.41	31	Pennsylvania	22.35
6	New Jersey	29.78	32	Florida	22.33
7	Virginia	29.46	33	North Dakota	21.99
8	Vermont	29.45	34	Wyoming	21.91
9	New Hampshire	28.65	35	Michigan	21.76
10	Washington	27.73	36	Idaho	21.67
11	Minnesota	27.43	37	Missouri	21.58
12	New York	27.37	38	South Dakota	21.51
13	California	26.62	39	Iowa	21.21
14	Hawaii	26.17	40	Ohio	21.10
15	Utah	26.13	41	South Carolina	20.42
16	Illinois	26.06	42	Oklahoma	20.28
17	Kansas	25.80	43	Tennessee	19.56
18	Rhode Island	25.60	44	Indiana	19.41
19	Oregon	25.08	45	Alabama	19.03
20	Delaware	25.05	46	Louisiana	18.73
21	Alaska	24.71	47	Puerto Rico	18.28
22	Montana	24.37	48	Nevada	18.16
23	Georgia	24.30	49	Kentucky	17.14
24	Nebraska	23.74	50	Mississippi	16.90
25	Arizona	23.53	51	Arkansas	16.66
26	New Mexico	23.45	52	West Virginia	14.83

Source: Author's tabulations using the U.S. Census Bureau's American Community Survey 2006-2008, 3-year Public Use Microdata Sample

will remain static or decrease. The high school dropout rate and intentions of Indiana high school students to attend college also affect the number and proportion of college-educated persons in the population.

We use a variety of publicly available data to examine factors that explain the proportion of the population with a bachelor's degree in Indiana. The American Community Survey 2006-2008 Public Use Microdata Sample (ACS) is used to examine migration patterns. Data from the Center for Higher Education Management Systems and the Indiana Department of Education (IN DOE) are used to examine high school dropout rates and the intent of Indiana high school students to attend college.

MIGRATION PATTERNS

Using data from the ACS, we examine migration patterns and educational attainment of three age groups: early 20s (age 21-24), the working-age population (age 25 to 64) and senior citizens (age 65 and over). We are interested in the number of migrants and their level of educational attainment. For each age group, we compare the number of in-migrants and out-migrants for Indiana and the respective percentage of the population with a bachelor's degree or higher.

Considering the working age population, over 487,000 people moved into Indiana from another state from 2006 through 2008 (Table 2). Just over 20 percent had a bachelor's degree or higher. In contrast, a much smaller number

of the working-age population moved out of the state, around 73,000, and 37 percent of them had a bachelor's degree or higher. These numbers suggest that a larger and less educated workingage population is moving into the state than is moving out of the state.

Of the 51,000 senior citizens who moved into the state during this period, 13.4 percent had a bachelor's degree or higher. A smaller number of seniors moved out of the state, 21.7 percent of which held a bachelor's degree. Considering seniors without a bachelor's degree, a larger number is moving into the state than out of the state.

In sum, the data in Table 2 suggest the vast majority of people moving into the state had less than a bachelor's degree. Similarly, of the people moving out of the state, the majority had less than a bachelor's degree, though these were much smaller numbers. As far as individuals with less than a bachelor's degree, the state has more people moving in, rather than out, which hinders the level of educational attainment of the state's population.

Of the 327,500 people in their early twenties living in Indiana from 2006-2008, 20,600 moved to another state and 45.8 percent (approximately 9,400 students) of these had a bachelor's degree or higher (table 2). These numbers suggest that 15 to 20 percent of recent college graduates leave the state for opportunities elsewhere. We also examine which states receive the most recent college graduates (persons age 21 to 24) from Indiana over the 2006-2008 period. The top states receiving college graduates from Indiana are Illinois, California,

Florida, Ohio and Pennsylvania. The ACS sample is small for examining this issue, so these results should be interpreted with caution.

High School Graduation and Dropout Rates

A high school diploma is a prerequisite to enter institutions of higher education. Dropping out of high school limits the ability of an individual to move on to higher education. Based on Census 2000 data, 17.9 percent of Indiana population (25 years and over) had less than a high school diploma. Indiana ranks 26th among the 50 states (and D.C.), so 25 states have a lower percentage of the population with less than a high school diploma than Indiana (Table 3).

One measure of high school completion is the percentage of ninth graders that graduate from high school in four years. In Indiana during 2007-08 (the most recent year available), 74.1 percent of public school ninth graders graduated within four years (NCES 2010b).2 The remaining 25.9 percent either took a longer time to graduate or dropped out of high school.

In terms of graduation rates, Indiana ranks 34th among the 50 states, meaning 16 states have lower graduation rates. Nevada has the lowest graduation rate at 51.3 percent and Wisconsin has the highest graduation rate at 89.6 percent.

Relative to other states, high school dropout rates are relatively low in Indiana.3 Indiana and New Jersey ranked first with the lowest dropout rates (1.7 percent) in 2007-08. Louisiana had the highest dropout rate at 7.5 percent.

TABLE 2. MIGRATION PATTERNS BY AGE GROUP, 2006-2008

	Early 20s (Age 21-24)		Working Age Population (Age 25-64)		Senior Citizens (Age 65+)	
	Number	% with bachelor's degree or higher	Number	% with bachelor's degree or higher	Number	% with bachelor's degree or higher
Total	327,500	14.5%	3,352,000	24.3%	792,600	14.7%
Moving to Indiana from another state	NA		487,145	20.4%	51,200	13.4%
Moving to Indiana from another country	NA		12,100	47.9%	970	38.6%
Nonmovers	NA		2,853,000	24.9%	740,400	14.7%
Moving from Indiana to another state	20,600	45.8%	73,000	37.6%	7,900	21.7%

Source: U.S. Census Bureau, American Community Survey 2006-2008 3-year Public Use Microdata Sample

²The graduation rates calculated by National Center for Education Statistics (NCES) is the ratio of total number of diploma recipients in 2007-08 to the average number of students of 8th grade (in 2003-2004), 9th grade (in 2004-2005) and 10th grade (in 2005-2006).

TABLE 3. HIGH SCHOOL GRADUATES

State	% population (25 + yrs) with education less than high school graduation (Census 2000)		Dropout rate (2007-2008) (NCES)		Averaged Freshman Graduation Rate (2007-2008) (NCES)	
State	%	Rank (lower is better)	Dropout rate	Rank (lower is better)	Graduation rate	Rank (higher is better)
United States	19.6%		4.1		74.9	
Alabama	24.7%	46	2.2	4	69.0	43
Alaska	11.7%	1	7.3	48	69.1	42
Arizona	19.0%	32	6.7	47	70.7	41
Arkansas	24.7%	45	4.7	32	76.4	25
California	23.2%	41	5.0	34	71.2	39
Colorado	13.1%	8	6.4	46	75.4	30
Connecticut	16.0%	20	2.8	12	82.2	12
Delaware	17.4%	25	6.0	44	72.1	37
Florida	20.1%	35	3.3	18	66.9	44
Georgia	21.4%	38	4.3	27	65.4	46
Hawaii	15.4%	19	5.4	42	76.0	28
Idaho	15.3%	17	2.0	3	80.1	17
Illinois	18.6%	30	5.2	37	80.4	15
Indiana	17.9%	26	1.7	1	74.1	34
lowa	13.9%	11	2.9	15	86.4	3
Kansas	14.0%	12	2.5	8	79.1	19
Kentucky	25.9%	49	2.8	12	74.4	32
Louisiana	25.2%	48	7.5	49	63.5	48
Maine	14.6%	13	4.4	29	79.1	18
Maryland	16.2%	22	3.6	20	80.4	15
Massachusetts	15.2%	16	3.4	19	81.5	14
Michigan	16.6%	23	6.2	45	76.3	27
Minnesota	12.1%	2	2.8	12	86.4	3
Mississippi	27.1%	50	4.6	31	63.9	47
Missouri	18.7%	31	4.9	33	82.4	11

Indiana General Assembly passed legislation (IC 20-26-13) in 2003 authorizing a new method for calculating high school graduation rates beginning in 2005-06, based on student-level information.⁴ Using this method, the Indiana State Department of Education determined the high school graduation rate was 77.8 percent during 2007-08 (IN DOE 2009). The 2010 high school graduation rate of public school students was 84.1 percent and the dropout rate was 6.4 percent. (IN DOE 2010)

State	% population (25 + yrs) with education less than high school graduation (Census 2000)		Dropout rate (2007-2008) (NCES)		Averaged Freshman Graduation Rate (2007-2008) (NCES)	
State	%	Rank (lower is better)	Dropout rate	Rank (lower is better)	Graduation rate	Rank (higher is better)
Montana	12.8%	6	5.2	37	82.0	13
Nebraska	13.4%	9	2.5	8	83.8	7
Nevada	19.3%	33	5.1	36	51.3	49
New Hampshire	12.6%	5	3.0	16	83.4	9
New Jersey	17.9%	27	1.7	1	84.6	5
New Mexico	21.1%	37	5.2	37	66.8	45
New York	20.9%	36	3.9	22	70.8	40
North Carolina	21.9%	39	5.2	37	72.8	36
North Dakota	16.1%	21	2.4	7	83.8	7
Ohio	17.0%	24	4.3	27	79.0	20
Oklahoma	19.4%	34	3.1	17	78.0	21
Oregon	14.9%	14	3.8	21	76.7	24
Pennsylvania	18.1%	28	2.6	10	82.7	10
Rhode Island	22.0%	40	5.3	41	76.4	25
South Carolina	23.7%	42	3.9	22	N/A	N/A
South Dakota	15.4%	18	2.3	5	84.4	6
Tennessee	24.1%	43	3.9	22	74.9	31
Texas	24.3%	44	4.0	25	73.1	35
Utah	12.3%	4	4.2	26	74.3	33
Vermont	13.6%	10	N/A	N/A	89.3	2
Virginia	18.5%	29	2.7	11	77.0	23
Washington	12.9%	7	5.7	43	71.9	38
West Virginia	24.8%	47	4.4	29	77.3	22
Wisconsin	14.9%	15	2.3	5	89.6	1
Wyoming	12.1%	3	5.0	34	76.0	28

Source: U.S. Census Bureau, American Community Survey 2006-2008 3-year Public Use Microdata Sample

While higher high school graduation rates and lower dropout rates are always desirable, the current statistics suggest that a large portion of Indiana secondary students are graduating from high school, which is the first step to gain entrance to higher education.

College Continuation and Completion Rates

The college continuation rate is a measure of high school graduates going on to attend public or private degree-granting institutions (two-year or four-year colleges) in any state.⁵ The National Center for Education Statistics (NCES) estimated Indiana's college continuation rates in 2008 as 65.7 percent for high school students going to college in any state (57.7 percent going to college in Indiana). These numbers, shown in Table 4, are higher than the US average of 63.8 percent and 51.8 percent, respectively (NCES 2008a).

Another measure of college continuation tracked by the National Center for Higher Education Management Systems (NCHEMS) is a ninth graders' chance to attend college by age $19.^6$ In $2008,\,46.3$

³Dropout rate (according to NCES) is defined as the ratio of the number of dropouts from a given school year to the number of student enrollments within the same grade span at the start of same school year.

⁴The Indiana Department of Education calculation for high school graduation rate is slightly different from NCES. It is calculated by first determining the grade nine enrollment at the beginning of year. Then adding the students who enrolled high school with the same expected graduation year and subtracting the students who left high school to form a resultant. Finally, find the ratio of total students graduated (after four years) to the resultant students. See Indiana Department of Education (2009) for more details on this calculation.

TABLE 4. COLLEGE CONTINUATION/MIGRATION RATES

State	Estimated rate of high school graduates going to college 2008 (NCES)		Estimated rate of high school graduates going to college in home state 2008 (NCES)		9th graders chance for college by age 19 2008 (NCES)		Net migration 2008 (NCES)	
	%	Rank (higher is better)	%	Rank (higher is better)	%	Rank (higher is better)	Number	Rank (higher is better)
United States	63.8		51.8		44.0		29,099	
Alabama	66.7	14	60.4	3	42.7	31	6,172	6
Alaska	45.7	50	26.4	49	30.1	49	-1,320	40
Arizona	51.4	45	45.9	33	34.5	48	6,807	4
Arkansas	62.5	28	55.6	13	46.8	18	2,185	19
California	65.4	20	59.9	4	44.2	25	-2,647	43
Colorado	62.6	27	47.7	32	44.8	23	-17	36
Connecticut	68.0	10	37.4	45	53.2	7	-5,006	46
Delaware	66.1	15	44.7	35	43.5	29	1,146	27
Florida	58.8	37	52.0	24	35.0	45	4,350	11
Georgia	69.6	7	58.0	8	40.9	39	-2,789	44
Hawaii	62.3	29	41.8	37	42.6	33	-1,559	42
Idaho	49.1	47	34.4	47	38.1	41	604	29
Illinois	57.4	39	40.9	40	43.5	27	-1,0970	49
Indiana	65.7	17	57.7	10	46.3	19	8,382	2
Iowa	64.3	22	55.0	14	54.0	6	5,612	9
Kansas	65.4	19	55.7	12	49.7	12	2,183	20
Kentucky	60.9	31	54.0	16	41.8	36	3,209	14
Louisiana	65.3	21	59.0	7	37.9	42	2,454	16
Maine	57.1	40	38.7	44	48.2	14	39	35
Maryland	62.9	25	39.2	43	45.8	21	-8,480	47
Massachusetts	74.7	2	50.6	25	57.5	4	7,046	3
Michigan	59.9	33	53.3	19	42.3	34	-1,363	41
Minnesota	69.2	8	50.0	26	59.1	2	-3,817	45
Mississippi	77.4	1	71.7	1	46.0	20	2,238	18
Missouri	60.0	32	49.9	27	47.0	17	2,123	21

percent of college freshmen were ninth graders four years earlier (NCHEMS 2009a). Indiana ranks 19th (18 states have a larger share of ninth grade students attending college four years later).

The migration of freshmen students (who graduated from high school in the previous year) to degree-granting institutions in other states also influences a state's college education status because where students go to school often influences where they work and live after college. NCES estimates the ratio of in-state freshman students to total freshman enrollment in the state and the ratio of in-state freshman students to freshman from Indiana enrolled in any state including Indiana. These ratios for Indiana in 2008 were 0.74 and 0.88, respectively, meaning that 74 out of 100 freshmen at Indiana colleges and universities are from Indiana, and 88 out of 100 freshmen who are Indiana residents are enrolled in institutions somewhere in the U.S., including Indiana. Though the in-state freshman students to freshman enrollment ratio was lower than the national

State	of hi gradua coll	nated rate gh school ates going to ege 2008 NCES)	Estimated rate of high school graduates going to college in home state 2008 (NCES)		9th graders chance for college by age 19 2008 (NCES)		Net migration 2008 (NCES)	
	%	Rank (higher is better)	%	Rank (higher is better)	%	Rank (higher is better)	Number	Rank (higher is better)
Montana	51.9	44	39.6	42	40.7	40	368	31
Nebraska	65.5	18	53.5	18	52.0	8	333	32
Nevada	55.6	43	41.8	38	26.4	50	-1,272	39
New Hampshire	63.9	24	33.2	48	51.4	9	237	34
New Jersey	71.1	5	41.4	39	58.2	3	-27,819	50
New Mexico	67.7	11	57.9	9	41.0	38	299	33
New York	74.2	3	59.8	5	47.1	16	1,967	24
North Carolina	66.0	16	59.1	6	43.5	28	6,659	5
North Dakota	67.6	12	48.5	30	55.4	5	1,973	23
Ohio	62.7	26	52.6	20	45.7	22	-612	37
Oklahoma	56.0	42	49.5	29	41.8	35	2,772	15
Oregon	46.5	49	35.3	46	34.8	47	1,910	25
Pennsylvania	63.9	23	52.5	21	50.6	10	14,899	1
Rhode Island	67.4	13	44.3	36	47.8	15	5,716	7
South Carolina	70.4	6	63.5	2	37.7	43	5,680	8
South Dakota	72.1	4	54.9	15	59.6	1	570	30
Tennessee	61.6	30	52.3	23	43.8	26	2,017	22
Texas	56.9	41	49.8	28	37.1	44	-10,134	48
Utah	58.5	38	53.6	17	43.3	30	5,127	10
Vermont	48.3	48	21.4	50	41.5	37	2,384	17
Virginia	68.7	9	56.2	11	48.6	13	3,340	13
Washington	50.7	46	39.9	41	34.8	46	-1,235	38
West Virginia	59.1	36	52.4	22	42.7	32	3,969	12
Wisconsin	59.1	35	47.7	31	50.6	10	1,066	28
Wyoming	59.4	34	45.1	34	44.4	24	1,226	26

Sources: NCES 2008a; NCHEMS 2009b; NCES 2009

average (0.8), the ratio of in-state freshman students to residents enrolled in any state was higher than the national average (0.81).

The net migration of students into Indiana to attend college was 8,382 in 2008 (NCES 2009), indicating that more students are coming to Indiana to attend college than leaving Indiana to attend college.⁸ Indiana is ranked second among the 50 states in terms of net migration into the state for college education. Pennsylvania has highest net migration of 14,899 students into the state; whereas New

⁵The college continuation rate is calculated by taking the ratio of number of firsttime freshmen who graduated from high school in the past year in Indiana and who are enrolled in college anywhere in the U.S. to the total number of high school graduates (public and private) in Indiana.

⁶The ratio of number of fall first-time freshmen enrolled anywhere in the US in 2008 to the number of 9th graders four years earlier.

⁷Ratio of state residents enrolled in institutions in their home state to the total freshman enrollment in institutions located in the state.

⁸Net migration of students in a state is the difference between students migrating into state to attend college and students migrating out of state to attend college.

FIGURE 1. PERCENTAGE OF STUDENTS COMPLETING A FOUR YEAR COLLEGE DEGREE IN SIX YEARS



TABLE 6. COLLEGE GRADUATION RATES (2008)

Source: NCHEMS 2008b

		graduation rate for s: 2002 cohort		3 year overall 2008 graduation rate for 2-year schools: 2005 cohort		
State	%	Rank (higher is better)	%	Rank (higher is better)		
United States	55.89		30.45			
Alabama	45.83	38	19.93	39		
Alaska	22.08	50	18.64	42		
Arizona	39.25	48	43.89	4		
Arkansas	41.39	45	25.22	32		
California	63.09	9	32.99	18		
Colorado	52.75	28	41.16	8		
Connecticut	63.70	7	13.12	49		
Delaware	63.18	8	9.03	50		
Florida	50.62	33	45.68	3		
Georgia	47.23	35	26.22	31		
Hawaii	42.13	44	18.97	41		
Idaho	43.47	42	38.59	12		
Illinois	58.88	14	27.31	27		
Indiana	56.65	22	27.07	28		
lowa	61.40	12	38.80	11		
Kansas	52.78	27	33.50	17		
Kentucky	44.73	40	30.56	23		
Louisiana	40.78	46	32.47	20		
Maine	56.72	21	26.82	30		
Maryland	65.27	3	19.79	40		
Massachusetts	69.10	1	22.43	37		
Michigan	54.34	25	16.05	46		
Minnesota	58.37	15	30.91	22		
Mississippi	50.95	31	24.95	33		

Jersey has the lowest net migration of -27,819 students in 2008. See Table 4 for state-to-state comparison of college enrollment and net migration rates.

The share of students who complete a four-year college degree within six years has been increasing in Indiana and the U.S. in general (See Figure 1). These numbers suggest that the percentage of the population with a bachelor's degree in Indiana is likely to increase over time.

In 2008, 56.7 percent of Indiana college students completed a four year degree within six years (Indiana ranked 22 among 50 states) and 27.1 percent completed a two year degree within three years (Indiana ranked 28 among 50 states) (NCES 2008b). See Table 6 for state-to-state comparison of college graduation rates. Indiana is in the middle of the distribution. Increasing college completion rates will have a direct effect on the proportion of the population with a bachelor's degree in Indiana.

One factor that affects completion rates and time is the increasing cost of higher education. From 2000 to 2009, prices of college tuition and fees, one component of the Consumer Price Index, increased 82.8 percent, while the general price level increased 24.6 percent. A recent

		graduation rate for s: 2002 cohort	3 year overall 2008 graduation rate for 2-year schools: 2005 cohort		
State	%	Rank (higher is better)	%	Rank (higher is better)	
Missouri	56.60	23	34.36	16	
Montana	42.86	43	36.69	15	
Nebraska	54.28	26	37.05	14	
Nevada	36.56	49	40.41	9	
New Hampshire	60.35	13	22.61	36	
New Jersey	61.72	11	18.12	45	
New Mexico	40.29	47	18.20	44	
New York	58.24	16	23.68	35	
North Carolina	57.95	18	23.86	34	
North Dakota	45.56	39	42.29	7	
Ohio	55.62	24	30.17	24	
Oklahoma	46.53	37	32.92	19	
Oregon	56.78	20	29.97	25	
Pennsylvania	65.45	2	42.51	6	
Rhode Island	64.19	6	15.47	47	
South Carolina	57.57	19	14.17	48	
South Dakota	46.93	36	58.61	2	
Tennessee	51.27	30	39.29	10	
Texas	48.99	34	21.68	38	
Utah	50.78	32	43.27	5	
Vermont	64.41	5	18.24	43	
Virginia	62.99	10	27.00	29	
Washington	64.52	4	32.11	21	
West Virginia	44.63	41	28.84	26	
Wisconsin	58.23	17	37.25	13	
Wyoming	52.53	29	60.17	1	

TABLE 7. UNDERGRAD. ENROLLMENT & RESIDENCY STATUS, SELECTED PUBLIC INDIANA INSTITUTIONS

Public Institutions	Undergrad. enrollment, 2009	Undergrad. out- of-state, 2008 (% of total)	Undergrad. foreign country, 2008 (% of total)
Ball State University	17,737	13	1
Indiana State University	8,460	10	3
Indiana University-Bloomington	32,490	35	3
IU East	2,827	13	0
IU Kokomo	2,848	0	0
IU Northwest	4,879	0	0
IPFW	12,876	4	1
IUPUI	30,383	4	3
IU South Bend	7,496	1	0
IU Southeast	5,943	18	0
lvy Tech-Bloomington	5,906	1	0
Ivy Tech- Central Indiana	19,533	0	0
lvy Tech- Columbus	4,647	0	0
Ivy Tech- East Central	8,159	0	0
lvy Tech- Kokomo	5,088	0	0
Ivy Tech- Lafayette	7,407	1	0
Ivy Tech- Northcentral	7,857	3	0
Ivy Tech- Northeast	10,291	1	0
Ivy Tech- Northwest	8,117	2	0
Ivy Tech- South Central	4,609	31	0
Ivy Tech- Southeast	2,800	4	0
Ivy Tech- Southwest	6,189	3	0
Ivy Tech- Wabash Valley	5,857	8	0
Ivy Tech- Whitewater	3,451	8	0
Purdue University	32,500	29	7
Purdue-Calumet	9,005	14	7
Purdue- North Central	4,379	2	0
University of Southern Indiana	9,648	7	1
Vincennes University	13,947	21	0

study by the Government Policy Research Center (Hicks 2011) found that higher tuition rates within a state led to a smaller share of collegeaged students attending college in their home state. The implication from this finding is that higher own-state tuition reduced the relative cost of out-of-state college choices. Higher tuition is almost solely caused by declines in state funding of higher education.

Residency Status of College & University Students in Indiana

The number of nonresident students who attend Indiana universities also has an impact on the share of the population with a bachelor's degree or higher. Tables 7 and 8 shows the number and proportion of nonresident undergraduate students at selected public and private universities in Indiana. Table 9 shows the proportion of nonresident graduate students at the state's research universities. The largest universities in the state, in particular, have a large share of nonresident

TABLE 8. UNDERGRAD. ENROLLMENT & RESIDENCY STATUS, SELECTED PRIVATE INDIANA INSTITUTIONS

Private Institutions	Undergrad. enrollment, 2009	Undergrad. out- of-state, 2008 (% of total)	Undergrad. foreign country, 2008 (% of total)
Ancilla College	553	1	1
Anderson University	2,134	30	4
Bethel College	1,930	30	3
Butler University	3,726	45	2
Calument College of Saint Joseph	1,115	21	0
DePauw University	2,396	55	8
Earlham College	1,127	82	0
Franklin College of Indiana	1,271	2	0
Goshen College	974	50	7
Grace College & Theological Seminary	1,466	53	0
Hanover College	938	33	0
Holy Cross College	445	49	2
Huntington University	1,164	41	1
Indiana Tech	3,634	25	2
Indiana Wesleyan University	10,331	43	0
Manchester College	1,223	12	1
Marian University	2,059	9	0
Martin University	1,149	0	0
Oakland City University	2,382	5	5
Rose-Hulman Intitution of Technology	1,843	56	2
Saint Joseph's College	1,010	32	0
Saint Mary's College	1,664	71	1
Saint Mary-of-the-Woods College	1,465	26	0
Taylor University	2,436	67	5
Trine University	1,608	46	1
University of Evansville	2,672	38	5
University of Indianapolis	3,829	12	1
University of Notre Dame	8,372	89	3
University of Saint Francis	1,845	17	1
Valparaiso University	2,888	63	1
Wabash College	883	23	5

students. At Indiana University Bloomington, 35 percent of undergraduate students were from out of state, and 3 percent were from another country during the first semester of 2008. At Purdue University (West Lafayette), 29 percent of undergraduate students were from out of state and 7 percent were from another country in 2008. An even larger share of graduate students (72 percent at both IUB and Purdue) were nonresidents. Out-of-state and international students are less likely to remain in Indiana after graduation. However, more data is needed to compare the share of nonresident students in Indiana with that of other states.

TABLE 9. GRADUATE ENROLLMENT & RESIDENCY STATUS OF RESEARCH UNIVERSITY IN INDIANA

	Graduate Enrollment 2010							
Research University	Total	Non- Resident	Foreign	Non-resident %	Foreign %			
Indiana University- Bloomington	10,097	7,282	2,234	72.12	22.13			
IUPUI	8,321	322	408	3.87	4.90			
Ball State University	3,956	1,072	285	27.10	7.20			
Notre Dame University	3,368	NA	NA	NA	4.00			
Purdue University	8,552	6,184	3,114	72.31	36.41			

DISCUSSION AND CONCLUSIONS

We know from the literature on interstate migration that amenities have a strong influence on where the college-educated population chooses to live. Whisler et al. (2008), for example, finds that the presence of cultural and recreational amenities is associated with lower out-migration rates of the college-educated population. We also know the presence of a major metropolitan area at Indiana's border and the associated job opportunities there draw recent graduates out of the state. Likewise, we see that higher tuition rates within a state lead to higher levels of students leaving the state for college.

The disparity between the relatively low percentage of the population with a bachelor's degree in the state and the relatively high number of undergraduates graduating from Indiana's institutions of higher education results, in part, from the favorable reputation of the state institutions of higher education. High quality programs draw students from other states and countries. These students contribute to the diversity of the student bodies in educational institutions across the state.

The number of ninth graders going on to college and the increasing share of students who are completing a four-year degree in six years suggests that the proportion of Indiana's population with a bachelor's degree is likely to continue to increase over time. The modern job market necessitates this change.

Indiana's 21st Century Scholars program may potentially impact the percentage of the population with a bachelor's degree. We have not examined this program here. Evaluation of the state's 21st Century Scholars program should further analyze whether this program has been successful in increasing the college completion rate among the targeted population. Research to date has shown that this program has had a positive impact on access to higher education (St. John, Musoba and Simmons 2003; St. John et al. 2004). A study examining the 1999 cohort of 21st Century Scholars shows that a higher percentage of this cohort (relative to students not funded through this program) attained some college but dropped out before receiving a degree (St. John et al 2008). Other statewide scholarship programs, such as the HOPE scholarship in Georgia, have shown positive effects and

unintended consequences with students taking longer to graduate and selecting easier majors to remain eligible for the program (Cornwell, Lee and Mustard 2005; Cornwell, Lee and Mustard 2006).

This policy brief is a beginning exploration of factors that affect the level of bachelor's degree attainment in the state. Additional work should be done to further clarify how Indiana compares to other states with similar characteristics, both demographics and the number of large research universities.

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