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AUTHOR Johns, Virginia; Viehland, Dennis W.  
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ABSTRACT

A place-to-place migration study of first-time freshmen in American four-year colleges and universities presents student migration patterns for each of the 50 states and the District of Columbia in Fall 1986. Migration patterns of all first-time students are reviewed, but the focus of the analysis is first-time freshmen, the most critical population for institutional enrollment management. State-by-state matrix tables are presented that show where students come from and where they go for all 51 locations by sector of control (i.e., public and private institutions). Contains 22 references. (Author/KM)

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Migration Patterns of First-time Freshmen in the United States

by

Virginia Johns  
Research Assistant  
Office of Management Analysis and Research  
University of Arizona

and

Dennis W. Viehland  
Management Analyst  
Center for Computing and Information Technology  
University of Arizona

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Teresa Karolewski  
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## Migration Patterns of First-time Freshmen in the United States

### Abstract

A place-to-place migration study of first-time freshmen in American four-year colleges and universities presents student migration patterns for each of the fifty states and D.C. in Fall 1986. Migration patterns of all first-time students are reviewed, but the focus of the study is first-time freshmen, the most critical population for institutional enrollment management. State-to-state matrix tables are presented that show where students come from and where they go to for all fifty-one locations by sector of control (i.e., public and private).

## Migration Patterns of First-time Freshmen in the United States

### Introduction: Why Study Migration?

Understanding student migration patterns is important to a number of audiences. Analysts in private colleges and universities need to be aware of migration patterns to improve recruitment efforts, especially in consideration of the large number of students who travel across state borders to attend these institutions. For public institutions these data are useful for studying the impact of differential admission requirements and tuition policies. In both public and private schools, enrollment planning must be sensitive to maintaining geographical diversity in the student body, which promotes the exchange of new ideas and different philosophies in classrooms and campus discussions. Institutional executives are also interested in out-of-state enrollment. From their perspective, interstate student migration

is of fundamental importance to institutions of higher education because it impinges directly upon problems of educational costs, issues of curricular needs, future enrollment demands, and problems relating to quality of academic standards. Administrators charged with policy-making responsibilities in these and other areas must consider the factor of student migration in their decisions. (Steahr and Schmid, 1972, p. 441)

State agencies use these data to calculate accurate college-going rates, examine the impact of statewide tuition and financial aid policy, and to study problems attributed to excessive immigration or outmigration (e.g., determining the type of institutions that attract a state's citizens to other states). State and local officials are interested in migration patterns for assessing the economic impact of institutions of higher education. Finally, federal government officials examine student migration flows to determine the impact of programs such as the State Student Incentive Grant Program.

### Purpose of the Study: A Place-to-Place Study of Student Migration

For student migration data to be meaningful to the institutional researcher, the study should possess several characteristics. First, the study should be a place-to-place study. A place-to-place study shows where students come from and go to by region, state, or institution. Federal summaries of migration data indicate the number of immigrants and emigrants for each state, but do not present state-to-state migration patterns. This study includes matrix tables that show state-to-state student migration patterns.<sup>1</sup>

Second, for most institutions and state agencies the freshmen class is the migration population of most interest. These students account for the majority of first-time students that cross state borders and they are the most critical population for formulating nonresident enrollment management policy.

A third criterion is availability of data by sector of control (i.e., public vs private). Student migration patterns for these two sectors differ dramatically and each should be considered separately. For example, in Fall 1986, 40 percent of all first-time freshmen attending private four-year colleges and universities were out-of-state students, in contrast with an equivalent percentage of eight percent in the public sector.

Finally, almost all interstate migration occurs in four-year institutions. Of all first-time freshmen who crossed state borders to attend college in Fall 1986, 82 percent did so to attend four-year institutions. The inclusion of two-year institutions in a migration study generally adds little to the migration data and may distort important ratios.

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<sup>1</sup> For institutional analysis of student migration a state-to-institution study is preferable. Because of federal reporting requirements, each institution should have these data. Consequently, this study concentrates on state-to-state student migration.

In summary, institutional researchers would benefit most by a place-to-place study of first-time freshmen in American four-year institutions with separate data for private and public institutions. The purpose of this paper is to report the results of such a study.

### Literature Review

Studies of interstate student migration fall into several categories: state and regional reports, policy studies, student demand studies, and reviews of national migration patterns. Numerically, the largest number of migration studies have been sponsored by governmental agencies with the primary focus on a particular state or region (e.g., Kaufman, 1978; New York State Education Department, 1978; Popovich, 1977; Simmons, 1979). These studies usually include migration data with some analysis as to why students migrate into or out of the state.

Higher education publications and journals contain a number of studies that provide a general overview of national or state policies that influence interstate student migration (e.g., Chronister and Martin, 1975; Etzioni, 1974; Linney, 1979; Williams, 1964). These studies may highlight trends, but they generally contain little or no data on student migration.

Most student demand studies have focused on the resident student population; only a few researchers have studied nonresident student demand, using nonresident tuition and fees as the price variable (e.g., McHugh and Morgan, 1984; Morgan, 1983; Tuckman, 1980; Viehland, 1989). Other related studies have used migration data to study impact of institutional prestige on migration (Abbott and Schmid, 1975), inter-regional migration flows (Slater, 1976), and institutional characteristics that attract nonresident students (Garcia, 1983).

One of the first, and certainly the most comprehensive, review of interstate migration trends was *Migration of College and University Students in the United States* (Gossman, Nobbe, Patricelli, Schmid, and Steahr, 1968). This study included separate analyses for undergraduate and graduate students in both public and private institutions from 1938 to 1963. More significantly, this study analyzed the effect of social, economic, demographic, and distance factors on migration and used this analysis to propose a gravity model of student migration. Finally, more so than any other study, Grossman, et al. used innovative graphics to depict the flow of students by state and region.

The release of the 1968 residence and migration data spawned a number of review studies. Thomas A. Steahr and Calvin E. Schmid (1972) summarized major patterns and trends of college and student migration in the United States from 1938 to 1968 and discussed the personal and social consequences of student migration. The major contribution of Calvert, Drews, and Wade (1971) was an examination of factors in American higher education that were reducing interstate student migration (e.g., increasing number of two-year colleges).

A dissertation by Meredith (1971) used data from 1949-1968 migration surveys to show migration trends of college students among the states. Meredith also proposed a model to analyze the migratory movement of colleges students in each state. The final two studies of the 1968 data set were from the federal agency responsible for collecting the data, the National Center for Education Statistics (NCES). The analytical report by Wade (1970a) was another in a series of such reports NCES had done for previous surveys. The NCES report *Residence and Migration of College Students, Fall 1968: Basic State-to-State Matrix Tables* (Wade, 1970b) is the review study that most closely matches the goals of the current study.

In the last two decades interest in student migration trends has declined--at least in terms of the number of studies that have been completed. A recent review study by Christal (1982) examined residence and migration data for Fall 1979. In addition to a general overview of migration trends, Christal discussed the role of nonresident students in enrollment management plans.

#### Data Source

The data source used in this study is the biennial survey Residence of First-Time Students conducted by the Center for Education Statistics in Fall 1986. This survey asks all colleges and universities in the United States to report the number of first-time students,<sup>2</sup> both full-time and part-time, by student level from all fifty states, the District of Columbia, U.S. territories, and foreign countries. The student's state of residence is determined by his permanent residence or the residence of his parent or guardian. In the following section an overview of these data is presented; then the analysis narrows to focus on the first-time freshmen population in four-year institutions.<sup>3</sup>

#### Overview of Student Migration Trends

In Fall 1986, 472,173 first-time students traveled across state lines to attend college. Table 1 shows the distribution of these students by sector,

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<sup>2</sup>The Residence survey, and this study, includes only data on first-time students, either new to the institution (transfer, graduate, first-professional) or new to higher education (freshmen). Migration data on continuing students is not as reliable because nonresident students in public institutions will tend to establish residency in the destination state in order to reduce tuition.

<sup>3</sup>This study presents only data from the fall 1986 Residence survey. Previous student migration surveys were conducted using the HEGIS population of institutions, this survey was the first to use the IPEDS list of institutions. Additionally, the definition for determining a student's state of residence changed slightly and a "state unknown" column was added. Because of these changes, historical comparisons are not possible.

institution type, and class level.<sup>4</sup> This total does not include students who immigrated into the United States to attend college; those numbers are shown separately in Table 1.

Table 1  
Distribution of Migrating Students  
by Sector, Institution Type, and Class Level  
Fall 1986

	<u>Freshmen</u>	<u>Transfers</u>	<u>Graduate</u>	<u>First-Prof</u>	<u>All Levels</u>
Public					
Four-year	92,607	41,213	37,310	5,385	176,515
Two-year	<u>43,285</u>	<u>20,953</u>	NA	NA	<u>64,238</u>
Total	135,892	62,166	37,310	5,385	240,753
Private					
Four-year	143,675	27,504	30,431	19,092	220,702
Two-year	<u>9,381</u>	<u>1,307</u>	NA	NA	<u>10,688</u>
Total	153,056	28,811	30,431	19,092	231,390
All Institutions					
Four-year	236,282	68,717	67,741	24,477	397,217
Two-year	<u>52,666</u>	<u>22,260</u>	NA	NA	<u>74,926</u>
Total	288,948	90,977	67,741	24,477	472,143
Foreign	27,575	19,786	31,394	1,204	79,959

The majority of student migrants are first-time freshmen (288,948 or 61 percent of the total 472,143 students). This percentage is higher in the private institutions (153,056 or 66 percent of the total 231,390) than the public sector (135,892 or 56 percent of the 240,753). Undergraduate students make up 19 percent of the total, graduate students compose 14 percent, and only 5 percent of all student migrants are first-professional students.

Almost half of all student migrants are enrolled in private four-year institutions (220,702 or 46 percent of the 474,893 total). Another 38 percent (179,265) are enrolled in public four-year schools--leaving only 16 percent of

<sup>4</sup>The data in Table 1 include all institutions of postsecondary education in the United States whose programs of work are wholly or principally creditable toward a bachelor's or higher degree. Not included are technical institutes and semiprofessional schools whose programs are designed to prepare students for immediate employment, or to provide a general education not chiefly creditable toward a baccalaureate degree. In addition, this Table excludes United States service schools and institutions in outlying areas of the United States (i.e., U.S. territories).

In some states these numbers are slightly higher than those reported in NCES data summaries. Almost all of this discrepancy is attributable to the inclusion of Colorado data from the Colorado Commission on Higher Education that was not included by NCES.

all migrating first-time students in the two-year colleges. Some of this disparity is attributable to the lack of graduate or first-professional students in the two-year colleges, but four-year colleges dominate at the freshmen (82 percent) and transfer (76 percent) level as well.

The nonresident column in Table 2 matches the freshmen column in Table 1. Table 2 includes data on resident first-time freshmen (i.e., those who stayed in the home state to attend college). Although nonresident students make up only a small portion of enrollments at public two-year (4.5 percent) and public four-year (14 percent) schools, their participation is much higher in the private sector (40 percent).

Table 2  
First-time Freshmen Enrollments  
by Residency, Sector, and Institution Type  
Fall 1986

	<u>Resident</u>	<u>Nonresident</u>	<u>Total</u>
Public			
Four-year	584,902 (86.3%)	92,607 (13.7%)	677,509 (100%)
Two-year	917,339 (95.5%)	43,285 ( 4.5%)	960,624 (100%)
Total	1,502,241 (91.7%)	135,892 ( 8.3%)	1,638,133 (100%)
Private			
Four-year	196,591 (57.8%)	143,675 (42.2%)	340,266 (100%)
Two-year	31,754 (77.2%)	9,381 (22.8%)	41,135 (100%)
Total	228,345 (59.9%)	153,056 (40.1%)	381,401 (100%)
All Institutions			
Four-year	781,493 (76.8%)	236,282 (23.2%)	1,017,775 (100%)
Two-year	949,093 (94.7%)	52,666 ( 5.3%)	1,001,759 (100%)
Total	1,730,586 (85.7%)	288,948 (14.3%)	2,019,534 (100%)

### State-to-State Migration Patterns

In this section the focus of this review narrows to consider state-to-state migration patterns of first-time freshmen in four-year institutions of higher education. State-to-state matrix tables in the Appendix form a 51 x 51 matrix in which the entry in cell  $ij$  shows the total number of students,  $X_{ij}$ ,

who migrated from state  $i$  to state  $j$ . The sidebar identifies the destination state and the home state is listed across the top. For example, Table A-1 shows that 497 first-time freshmen migrated from Florida to attend a public four-year college in Georgia. Using Tables A-1 (public) and A-2 (private), institutional researchers can identify the number of students coming into their own state from all other 49 states and the District of Columbia. Similarly, researchers can identify how many students are leaving their own state and to which states they are going.

One way of summarizing these data is to examine the net migration of students between states for each sector, as is done in Tables 3 and 4. The first column in each table represents students migrating into the state and matches the NR TOTAL (i.e., nonresident total) column in appendix Tables A-1 and A-2. The second column in each table is students emigrating out of the state and corresponds to the TOTAL row in each appendix table. The third column is net migration, the difference between columns 1 and 2. To distinguish differences between the states, each column is ranked separately.

Tables 3 and 4 clearly show the importance of examining separately student migration data by sector of control. Nationally the number of migrants in the private sector is much greater than in the public sector (e.g., compare the 4,629 students emigrating into Virginia vs the 16,141 into Massachusetts). These differences are reflected in the state data as well. States such as Massachusetts, Pennsylvania, and Arizona show net gains from one sector, but net losses in another sector. North Carolina, South Carolina, and Indiana show net migration gains in both sectors while the populous states of California, New York, New Jersey, and Illinois experience a net loss of students to other states.

Table 3  
Migration of First-Time Freshmen  
into and out of Public Four-Year Institutions  
by State, Fall 1986

Freshmen entering the state to attend a public four-year institution		Freshmen leaving the state to attend a public four-year institution		Net migration in public four-year institutions	
1 Virginia	4629	1 Illinois	8027	1 Arizona	3425
2 Pennsylvania	4019	2 New Jersey	7686	2 North Carolina	2960
3 North Carolina	3976	3 New York	7406	3 Alabama	2841
4 Arizona	3869	4 Pennsylvania	5019	4 Indiana	2555
5 Wisconsin	3774	5 Minnesota	4124	5 Wisconsin	1992
6 Indiana	3763	6 Ohio	3681	6 Delaware	1770
7 Alabama	3589	7 California	3554	7 Virginia	1678
8 Maryland	3396	8 Maryland	3429	8 Kansas	1501
9 Ohio	3141	9 Florida	3406	9 Vermont	1390
10 Michigan	2923	10 Massachusetts	2972	10 South Carolina	1366
11 New York	2865	11 Virginia	2951	11 West Virginia	1360
12 Colorado	2773	12 Georgia	2541	12 New Hampshire	1285
13 Minnesota	2493	13 Connecticut	2497	13 Colorado	1201
14 South Carolina	2333	14 Michigan	2319	14 Kentucky	1122
15 Delaware	2324	15 Texas	2182	15 Mississippi	947
16 Florida	2281	16 Missouri	2072	16 Louisiana	793
17 Texas	2237	17 Iowa	1800	17 North Dakota	755
18 Iowa	2092	18 Wisconsin	1782	18 Michigan	604
19 Kansas	2048	19 Tennessee	1767	19 Utah	593
20 Georgia	2004	20 Colorado	1572	20 Oregon	540
21 Missouri	1966	21 Indiana	1208	21 Rhode Island	530
22 California	1963	22 Louisiana	1072	22 Oklahoma	450
23 Kentucky	1901	23 North Carolina	1016	23 Iowa	292
24 West Virginia	1874	24 Washington	1008	24 Idaho	183
25 Louisiana	1865	25 South Carolina	967	25 Arkansas	164
26 New Hampshire	1833	26 Nebraska	896	26 New Mexico	150
27 Vermont	1724	27 Kentucky	779	27 Maine	134
28 Tennessee	1649	28 Alaska	752	28 Texas	55
29 Mississippi	1564	29 Alabama	748	29 Montana	30
30 North Dakota	1251	30 South Dakota	710	30 Maryland	-33
31 Oregon	1151	31 Arkansas	677	31 South Dakota	-48
32 Oklahoma	1123	32 Oklahoma	673	32 Wyoming	-65
33 Massachusetts	1123	33 New Mexico	617	33 Missouri	-106
34 Illinois	1023	34 Mississippi	617	34 Nevada	-110
35 Rhode Island	993	35 Oregon	611	35 Tennessee	-118
36 Connecticut	981	36 Dist of Columbia	582	36 Washington	-193
37 Arkansas	841	37 Hawaii	574	37 Dist of Columbia	-216
38 Washington	815	38 Delaware	554	38 Nebraska	-287
39 New Mexico	767	39 New Hampshire	548	39 Hawaii	-459
40 New Jersey	767	40 Kansas	547	40 Georgia	-537
41 Utah	747	41 Maine	532	41 Ohio	-540
42 Idaho	671	42 West Virginia	514	42 Alaska	-661
43 Maine	666	43 North Dakota	496	43 Pennsylvania	-1000
44 South Dakota	662	44 Idaho	488	44 Florida	-1125
45 Nebraska	609	45 Rhode Island	463	45 Connecticut	-1516
46 Dist of Columbia	366	46 Nevada	445	46 California	-1591
47 Montana	346	47 Arizona	444	47 Minnesota	-1631
48 Nevada	335	48 Wyoming	361	48 Massachusetts	-1849
49 Wyoming	296	49 Vermont	334	49 New York	-4541
50 Hawaii	115	50 Montana	316	50 New Jersey	-6919
51 Alaska	91	51 Utah	154	51 Illinois	-7004
Immigrants	92607	Emigrants	90490	Net	2117

NOTE: Net migration difference is immigrants whose home state is unknown.

Table 4  
Migration of First-Time Freshmen  
into and out of Private Four-Year Institutions  
by State, Fall 1986

Freshmen entering the state to attend a private four-year institution		Freshmen leaving the state to attend a private four-year institution		Net migration in private four-year institutions	
1 Massachusetts	16141	1 New Jersey	16210	1 Massachusetts	7854
2 New York	14501	2 New York	16010	2 Dist of Columbia	5112
3 Pennsylvania	12321	3 Connecticut	8410	3 Pennsylvania	4856
4 Dist of Columbia	5941	4 Massachusetts	8287	4 North Carolina	4304
5 Rhode Island	5756	5 Pennsylvania	7465	5 Rhode Island	4262
6 Florida	5631	6 Illinois	7218	6 Tennessee	3224
7 North Carolina	5629	7 California	5707	7 Utah	2928
8 Ohio	5043	8 Maryland	5280	8 Indiana	2327
9 Illinois	4909	9 Ohio	5033	9 Missouri	1468
10 Tennessee	4776	10 Florida	5024	10 Louisiana	1042
11 Indiana	4598	11 Virginia	4188	11 Vermont	990
12 Connecticut	4509	12 Texas	3102	12 South Carolina	715
13 California	4128	13 Michigan	3101	13 Florida	607
14 Missouri	3625	14 Georgia	2887	14 Iowa	594
15 Virginia	3577	15 Colorado	2683	15 Alabama	505
16 Texas	3299	16 Indiana	2271	16 Minnesota	504
17 Utah	3278	17 Wisconsin	2199	17 Nebraska	246
18 Minnesota	2527	18 Missouri	2157	18 Texas	197
19 Wisconsin	2345	19 Washington	2095	19 Wisconsin	146
20 Georgia	2289	20 Minnesota	2023	20 New Hampshire	51
21 Louisiana	2088	21 New Hampshire	1902	21 North Dakota	15
22 South Carolina	2006	22 Maine	1676	22 Ohio	10
23 Iowa	1976	23 Oregon	1552	23 West Virginia	7
24 New Hampshire	1953	24 Tennessee	1552	24 Arkansas	1
25 Vermont	1888	25 Rhode Island	1494	25 South Dakota	-72
26 Maryland	1876	26 Kentucky	1386	26 Hawaii	-93
27 New Jersey	1699	27 Iowa	1382	27 Oregon	-125
28 Michigan	1614	28 North Carolina	1325	28 Kansas	-258
29 Washington	1519	29 Arizona	1293	29 Mississippi	-289
30 Alabama	1506	30 South Carolina	1291	30 Wyoming	-314
31 Oregon	1427	31 Louisiana	1046	31 Kentucky	-327
32 Maine	1340	32 Alabama	1001	32 Delaware	-330
33 Kentucky	1061	33 Oklahoma	984	33 Maine	-336
34 Nebraska	1042	34 Kansas	963	34 Nevada	-471
35 Hawaii	816	35 Hawaii	909	35 Oklahoma	-474
36 Arkansas	767	36 Vermont	898	36 Montana	-483
37 West Virginia	734	37 Dist of Columbia	829	37 Alaska	-502
38 Kansas	705	38 Nebraska	796	38 Idaho	-565
39 Oklahoma	510	39 Delaware	789	39 New Mexico	-575
40 Delaware	459	40 Arkansas	766	40 Washington	-576
41 Colorado	358	41 Idaho	760	41 Georgia	-598
42 Mississippi	344	42 West Virginia	727	42 Virginia	-611
43 South Dakota	330	43 New Mexico	638	43 Arizona	-1172
44 North Dakota	271	44 Mississippi	633	44 Michigan	-1487
45 Idaho	195	45 Montana	616	45 New York	-1509
46 Montana	133	46 Alaska	553	46 California	-1579
47 Arizona	121	47 Nevada	471	47 Illinois	-2309
48 New Mexico	63	48 South Dakota	402	48 Colorado	-2325
49 Alaska	51	49 Utah	350	49 Maryland	-3404
50 Nevada	0	50 Wyoming	314	50 Connecticut	-3901
51 Wyoming	0	51 North Dakota	256	51 New Jersey	-14511
Immigrants	143675	Emigrants	140906	Net	2769

NOTE: Net migration difference is immigrants whose home state is unknown.

## Conclusion

The purpose of this study was to show state-to-state migration patterns of first-time freshmen in American four-year colleges and universities by sector of control. Institutional researchers and policy analysts will benefit most from this study by using Tables A-1 and A-2 to examine data relevant for their own state. Further analyses of these data (e.g., calculation of migration rates, comparison with high school graduate projections) were not included in this study because these investigations should be conducted with a specific purpose in mind. That is, researchers are encouraged to utilize the data presented here to analyze student migration for the areas of interest in their own state or institution.

## References

- Abbott, Walter F., and Schmid, Calvin F. University prestige and first-time undergraduate migration in the United States. *Sociology of Education*, Spring 1975, 48(2), 168-85.
- Calvert, Robert, Jr., Drews, Theodore H., and Wade, George H. College student migration: A review of 1968 data and implications. *College and University*, 1971, 47(1), 36-47.
- Christal, Melodie E. *Residence and migration of college students*. Boulder, Colorado: National Center for Higher Education Management Systems, 1982. (ERIC Document Reproduction Service No. ED 246 811)
- Chronister, Jay and Martin, E. Davis. *Nonresident student enrollment in state institutions of higher education: An overview*. Charlottesville, Virginia: University of Virginia Center for Higher Education, 1975.
- Etzioni, Amitai. Interstate integration of students. *The Educational Forum*, January 1974, 38(2), 223-224.
- Gossman, Charles S., Nobbe, Charles E., Patricelli, Theresa J., Schmid, Calvin F., and Steahr, Thomas E. *Migration of college and university students in the United States*. Seattle, Washington: University of Washington Press, 1968.
- Garcia, Sandra C. *A study of college student interstate migration: An empirical predictability model*. Unpublished doctoral dissertation, George Washington University, 1983.
- Kaufman, Norman. *Residence and mobility of graduate and professional students in the west*. Boulder, Colorado: Western Interstate Commission for Higher Education, 1978. (ERIC Document Reproduction Service No. ED 163 857)
- Linney, Thomas. *Interstate migration of college students* (AAHE-ERIC/Higher Education Research Currents). Washington, D.C.: American Association for Higher Education, December 1979. (ERIC Document Reproduction Service No. ED 180 327.)
- McHugh, Richard and Morgan, James N. The determinants of interstate student migration: A place-to-place analysis. *Economics of Education Review*, 1984, 3(4), 269-278.
- Meredith, Thomas C. *Migratory trends of students in senior colleges and universities in the United States, by states, 1949 through 1968*. Unpublished doctoral dissertation, University of Mississippi, 1971.
- Morgan, James N. Tuition policy and the interstate migration of college students. *Research in Higher Education* 1983, 19(2), 183-195.

- New York State Education Department. *Residence and migration of college and university students in New York state*. Albany, New York: New York State Education Department, 1978. (ERIC Document Reproduction Service No. ED 180 327)
- Popovich, Joseph J. Jr. *Nonresident student enrollment in Maryland public institutions of higher education: Report of findings and policies*. Annapolis, Maryland: Maryland State Board for Higher Education, 1977. (ERIC Document Reproduction Service No. ED 138 186)
- Simmons, Fran C. *Out-migration of New Jersey full-time first-time freshmen, 1979: Analysis and recommendations*. Trenton, New Jersey: New Jersey State Department of Higher Education, 1981. (ERIC Document Reproduction Service No. ED 213 295)
- Slater Paul B. The use of state-to-state college migration data in developing a hierarchy of higher educational regions. *Research in Higher Education*, 1976, 4(4), 305-315.
- Steahr, Thomas E. and Schmid, Calvin F. College student migration in the United States. *Journal of Higher Education*, June 1972, 43(6), 441-463.
- Tuckman, Howard P. Determinants of college student migration. *The Southern Economic Journal*, October 1970, 37(2), 184-189.
- Viehland, Dennis W. (1989). *Nonresident enrollment demand in public higher Education*. Unpublished doctoral dissertation, University of Arizona, 1989.
- Wade, George H. *Residence and migration of college students: Fall 1968 analytic report*. Washington, D.C.: National Center for Educational Statistics, 1970a. (ERIC Documentation Reproduction Service No. ED 049 720)
- Wade, George H. *Residence and migration of college students: Fall 1968 basic state-to-state matrix tables*. Washington, D.C.: National Center for Educational Statistics, 1970b.
- Williams, Robert L. The nonresident student. *College and University*, 1964, 39(2), 161-169.

Table A-1: State-to-State Migration of First-time Freshmen in PUBLIC Four-Year Postsecondary Institutions in Fall 1986

Destination State	INST	AL	AK	AZ	AR	CA	CO	CT	DE	DC	FL	GA	HI	ID	IL	IN	IO	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO	MT
Alabama	16	--	4	5	25	32	9	17	6	2	796	866	7	1	123	27	7	9	66	148	2	48	27	87	5	141	20	4
Alaska	3	0	--	1	0	10	7	1	1	0	2	0	3	0	6	1	2	0	0	0	2	2	2	2	6	1	0	0
Arizona	3	4	94	--	5	820	386	69	4	3	35	4	29	32	406	52	54	38	4	8	5	24	68	119	134	0	63	18
Arkansas	9	4	2	6	--	16	9	3	3	0	21	4	0	4	95	6	9	20	0	87	0	2	2	12	6	18	144	1
California	31	10	54	87	3	--	133	31	5	7	40	16	117	18	92	10	21	13	5	9	7	43	68	46	37	4	25	14
Colorado	12	4	44	81	11	383	--	97	7	12	42	19	82	13	176	32	31	34	5	18	16	42	87	66	76	3	54	25
Connecticut	8	2	2	5	0	28	1	--	2	1	21	7	4	3	16	5	4	3	4	0	22	11	183	8	7	1	3	1
Delaware	1	0	0	0	0	2	0	36	--	15	3	0	0	0	3	5	0	0	0	1	4	399	8	3	1	0	1	0
Dist of Columbia	1	3	1	0	0	5	1	5	2	--	8	9	0	0	9	2	1	3	0	2	0	40	4	11	0	0	2	0
Florida	9	69	6	0	9	26	19	53	8	17	--	369	6	2	138	46	19	8	20	38	10	71	42	78	8	20	34	2
Georgia	18	101	3	4	7	24	8	26	14	9	497	--	3	3	30	23	4	5	28	28	9	66	24	30	6	11	17	1
Hawaii	3	0	5	1	0	31	3	4	0	0	1	1	--	3	4	2	2	0	0	1	0	0	1	1	1	0	0	3
Idaho	4	0	36	0	3	44	17	0	0	0	1	0	5	--	6	1	2	0	0	0	0	1	1	0	4	1	0	18
Illinois	13	8	1	13	4	66	11	12	2	0	46	19	0	0	--	73	121	4	19	5	2	10	8	37	17	0	240	1
Indiana	14	26	12	6	3	49	16	38	7	1	75	26	17	5	1254	--	14	7	126	8	7	51	45	297	25	3	165	0
Iowa	3	0	2	0	3	26	19	11	0	3	2	4	1	1	1402	20	--	10	2	5	3	3	2	36	164	4	45	2
Kansas	7	16	13	10	14	44	142	8	2	4	16	10	3	4	325	9	39	--	7	13	2	5	7	19	23	7	649	2
Kentucky	8	14	2	2	2	8	5	4	3	2	63	19	2	5	182	241	9	3	--	6	3	12	6	70	1	2	61	1
Louisiana	14	90	5	3	247	146	33	9	2	4	108	51	2	3	93	19	6	11	7	--	0	11	7	108	9	237	51	0
Maine	8	1	0	0	0	3	0	87	1	0	4	0	1	0	1	0	1	0	0	0	--	11	239	2	5	0	0	0
Maryland	15	15	15	33	11	207	22	63	86	137	121	56	8	4	72	28	17	5	15	13	6	--	45	47	19	8	14	1
Massachusetts	14	0	1	0	0	11	5	165	1	3	17	3	2	0	9	3	2	1	2	4	32	20	--	3	2	0	5	0
Michigan	15	7	5	8	1	52	26	53	0	14	78	12	13	0	540	97	16	5	11	7	12	109	77	--	82	3	35	3
Minnesota	13	3	6	7	0	18	9	4	2	0	14	1	1	2	281	6	140	6	5	0	0	5	3	19	--	0	3	7
Mississippi	9	151	1	3	80	15	4	6	2	0	107	73	0	0	129	18	6	4	23	284	1	3	4	33	0	--	61	0
Missouri	13	11	2	5	31	30	22	3	1	0	22	7	1	2	556	17	677	152	9	6	5	7	4	20	17	4	--	4
Montana	6	1	32	3	1	25	16	2	0	1	3	2	2	33	17	1	0	2	3	0	1	2	4	5	22	0	6	--
Nebraska	7	1	6	9	0	27	45	3	0	2	14	2	3	4	16	6	219	17	1	4	1	3	2	4	13	0	23	2
Nevada	2	0	10	8	0	167	17	4	0	2	2	0	5	3	15	0	3	1	0	0	0	2	3	6	3	0	1	2
New Hampshire	3	0	1	1	1	4	1	314	1	3	5	1	0	0	8	1	0	0	0	0	184	13	805	12	9	0	5	0
New Jersey	13	1	3	2	1	7	4	45	12	8	11	5	2	0	2	3	1	2	1	0	7	44	33	3	0	0	1	1
New Mexico	6	1	19	24	6	60	88	2	0	0	6	4	4	5	23	12	15	6	3	5	2	8	9	12	9	5	5	8
New York	35	22	9	17	16	142	31	200	13	8	108	47	13	10	81	35	30	12	22	23	26	91	135	87	42	9	35	13
North Carolina	17	24	5	5	2	33	17	112	50	82	307	259	7	1	53	38	4	3	22	19	8	318	52	50	2	9	16	2
North Dakota	6	1	8	0	1	7	5	0	0	0	4	0	1	4	15	3	5	1	0	0	2	1	1	4	1019	0	0	67
Ohio	20	3	4	10	2	34	17	49	10	5	57	18	3	5	315	170	12	6	152	9	7	92	30	529	18	1	55	0
Oklahoma	15	3	4	11	42	56	77	5	0	9	21	3	7	3	62	9	13	76	1	18	2	14	9	22	10	5	43	2
Oregon	8	1	151	3	2	338	26	2	0	1	7	2	111	67	10	2	3	0	0	2	0	2	2	7	8	0	1	33
Pennsylvania	24	2	1	3	0	29	16	116	137	39	74	13	0	2	31	11	1	1	1	3	11	387	61	32	3	3	5	0
Rhode Island	2	0	1	0	0	3	2	284	0	2	2	0	1	0	4	3	0	0	0	0	24	6	255	0	0	0	1	0
South Carolina	13	13	7	2	7	22	6	54	24	4	228	259	4	0	41	20	3	2	22	9	6	141	38	26	2	3	14	3
South Dakota	7	0	1	4	0	4	7	1	0	2	2	0	1	0	4	1	216	1	0	0	0	0	0	1	232	0	2	10
Tennessee	10	73	3	3	67	18	6	8	10	7	118	176	0	0	70	40	3	3	107	20	1	20	7	109	7	73	37	2
Texas	36	33	13	25	65	141	96	28	5	4	95	44	10	9	154	59	21	51	21	229	10	37	23	92	25	30	67	12
Utah	4	5	7	17	0	120	39	8	1	11	4	0	5	174	17	5	5	4	3	3	0	5	5	7	9	1	4	17
Vermont	4	2	1	1	0	4	9	275	1	4	9	6	0	2	23	3	0	0	1	2	67	33	413	5	4	0	1	0
Virginia	12	20	6	5	2	43	5	153	104	135	120	106	6	2	55	16	5	6	36	29	17	903	74	43	4	5	17	1
Washington	6	3	132	7	2	138	20	5	2	0	3	3	75	55	16	3	1	1	0	0	1	5	9	5	8	2	3	21
West Virginia	12	0	3	0	0	3	3	11	21	8	40	6	2	0	5	3	1	0	18	2	2	246	4	16	1	1	3	0
Wisconsin	13	0	2	2	0	27	9	9	2	10	24	8	2	2	1030	19	33	6	7	4	1	60	41	81	2013	1	35	0
Wyoming	1	0	7	2	1	6	103	2	0	1	2	1	3	2	12	2	2	5	0	0	0	0	0	0	0	1	0	12
TOTAL	546	748	752	444	677	354	1572	2497	554	582	3406	2541	574	488	8027	1208	1800	547	779	1072	532	3429	2972	2319	4124	617	2072	316

INST: number of institutions; UNK: state unknown

Table A-1: State-to-State Migration of First-time Freshmen in PUBLIC Four-Year Postsecondary Institutions in Fall 1986

Destination State	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	UNK	NR	TOTAL	HOME ST
Alabama	7	3	8	48	6	75	35	0	51	5	1	46	6	91	0	397	59	2	2	98	7	9	8	4	144	3,589	9,383	
Alaska	1	0	0	4	0	7	3	1	1	0	2	7	0	0	0	0	3	1	1	2	9	0	0	0	0	91	913	
Arizona	47	91	17	120	100	223	2	8	82	34	77	68	8	2	26	14	79	35	14	44	95	4	84	21	96	3,869	5,375	
Arkansas	5	3	0	14	10	6	2	1	5	51	1	11	0	4	1	62	161	0	0	5	3	0	14	3	5	841	6,989	
California	14	105	6	80	69	153	8	1	46	24	118	45	11	2	2	18	82	21	8	44	133	4	24	5	25	1,963	43,964	
Colorado	74	18	28	114	142	168	10	4	54	24	31	83	9	4	19	16	106	14	15	38	38	2	43	39	218	2,773	10,292	
Connecticut	4	0	25	152	0	249	7	0	20	1	4	39	53	4	3	2	10	1	11	17	11	3	7	1	13	981	7,515	
Delaware	1	0	1	893	0	234	2	0	7	0	1	666	1	4	1	0	1	0	4	22	2	3	0	0	0	2,324	1,506	
Dist of Columbia	0	1	0	17	0	43	55	1	10	1	0	18	1	29	0	7	9	0	0	50	0	3	4	0	9	366	2,455	
Florida	5	0	17	222	2	291	31	0	112	7	4	117	9	32	3	43	39	0	10	123	10	6	28	0	52	2,281	10,530	
Georgia	0	1	3	64	1	111	157	0	40	7	1	53	8	278	0	128	35	0	5	107	5	8	10	1	0	2,004	15,136	
Hawaii	0	1	1	2	0	2	0	1	2	1	5	6	0	2	1	0	3	0	0	7	10	0	3	0	4	115	2,022	
Idaho	3	12	2	4	1	2	0	0	1	0	38	0	0	1	0	0	3	5	0	3	141	0	5	5	305	671	2,588	
Illinois	7	0	4	26	8	35	10	1	36	7	2	19	0	4	0	21	9	1	3	20	8	3	40	4	36	1,023	24,772	
Indiana	11	1	10	134	7	179	11	2	648	11	10	164	1	4	3	42	29	4	9	37	16	25	86	4	32	3,763	21,364	
Iowa	128	2	2	11	4	21	1	2	17	7	1	8	0	1	33	1	14	4	1	7	2	0	54	1	0	2,092	7,566	
Kansas	195	2	2	19	10	33	5	4	12	154	2	20	0	3	7	12	51	4	3	11	4	1	10	6	85	2,048	8,109	
Kentucky	3	0	3	26	1	40	6	2	627	7	0	27	1	4	2	321	10	1	5	28	0	47	11	1	0	1,901	11,019	
Louisiana	4	12	1	23	3	43	6	1	30	22	5	8	2	8	1	34	338	1	0	16	20	3	14	1	7	1,865	20,197	
Maine	0	0	62	64	2	49	1	0	3	0	0	16	26	0	0	0	3	0	46	6	0	0	2	0	30	666	3,617	
Maryland	10	8	7	545	6	601	34	4	76	11	11	467	12	30	1	20	73	5	5	244	26	26	27	1	78	3,396	8,780	
Massachusetts	2	1	103	174	2	315	2	0	11	2	2	51	76	1	0	0	4	1	22	11	1	0	4	0	47	1,123	12,996	
Michigan	12	2	3	172	2	537	8	2	483	9	5	121	5	7	2	12	27	2	4	32	13	5	167	3	21	2,923	29,251	
Minnesota	13	3	3	16	2	12	2	394	12	0	4	9	1	0	437	2	7	0	0	5	3	0	844	2	180	2,493	12,779	
Mississippi	4	4	0	14	2	15	11	0	26	9	4	12	0	9	2	290	97	0	0	25	1	3	27	1	0	1,564	5,447	
Missouri	121	2	3	12	10	14	1	0	19	51	2	9	0	0	4	25	26	4	0	6	3	2	17	5	15	1,966	15,076	
Montana	1	6	3	1	1	11	0	9	9	2	17	7	1	0	7	1	2	1	0	6	28	0	3	46	0	346	3,859	
Nebraska	--	1	1	6	2	10	2	3	3	7	3	5	1	1	55	0	18	2	0	5	2	0	7	36	12	609	6,941	
Nevada	4	--	2	6	5	13	1	0	3	0	7	1	1	0	2	2	10	2	0	2	13	0	4	3	0	335	2,408	
New Hampshire	0	0	--	114	0	137	1	0	5	1	0	29	87	1	0	2	3	0	75	9	0	0	0	0	0	1,833	2,390	
New Jersey	0	1	5	--	1	305	5	1	9	1	2	111	3	1	0	1	2	0	3	24	0	1	1	0	91	767	13,825	
New Mexico	15	11	7	21	--	20	4	3	20	10	4	15	1	2	10	0	146	2	1	11	15	2	12	19	75	767	4,612	
New York	15	7	24	748	10	--	28	4	104	22	20	203	24	22	2	24	97	5	25	85	33	18	37	2	29	2,865	31,963	
North Carolina	6	4	16	429	3	312	--	1	97	8	5	250	8	273	3	72	41	1	10	803	7	41	11	0	75	3,976	18,190	
North Dakota	2	2	0	1	1	4	0	--	2	1	0	2	0	1	34	0	4	0	2	2	5	1	30	5	3	1,251	3,118	
Ohio	6	0	7	171	1	379	15	0	--	8	2	693	6	10	0	16	22	2	1	63	2	68	43	4	9	3,141	32,893	
Oklahoma	19	1	0	23	22	21	7	1	13	--	6	14	1	2	7	10	360	1	2	11	7	0	14	5	49	1,123	11,126	
Oregon	1	29	2	9	5	15	1	3	6	3	--	6	2	0	1	1	7	7	0	4	252	0	1	9	6	1,151	6,195	
Pennsylvania	0	1	15	1557	2	962	7	6	241	5	3	--	9	13	0	5	1	1	8	98	3	23	3	1	59	4,019	22,564	
Rhode Island	0	0	22	210	1	129	1	0	7	1	0	16	--	0	0	0	2	0	8	6	1	0	1	0	0	993	2,082	
South Carolina	0	1	7	253	1	180	307	2	52	5	3	135	9	--	0	62	37	1	5	220	2	39	12	0	0	2,333	8,304	
South Dakota	55	0	1	2	2	5	1	24	1	0	0	0	0	1	--	0	10	0	1	3	1	0	8	57	1	662	3,481	
Tennessee	5	3	0	36	5	42	59	0	84	4	0	43	0	24	1	--	30	2	1	211	3	34	9	0	65	1,649	12,031	
Texas	18	12	4	54	132	118	19	2	77	124	18	60	6	9	12	29	--	7	2	65	28	8	27	7	0	2,237	40,646	
Utah	1	76	2	10	18	16	1	1	4	9	9	9	2	6	2	2	14	--	4	5	15	1	7	54	3	747	5,975	
Vermont	0	0	93	162	0	421	3	0	21	0	1	74	53	2	0	3	4	0	--	13	3	3	2	0	0	1,724	1,349	
Virginia	5	2	14	710	4	640	129	4	78	8	5	553	6	65	5	58	49	2	11	--	16	116	10	0	221	4,629	13,672	
Washington	2	12	3	10	8	15	2	0	4	2	167	8	0	1	3	2	14	9	5	10	--	0	4	4	10	815	9,195	
West Virginia	0	0	0	131	0	73	6	0	313	2	0	663	7	8	0	2	1	0	1	264	1	--	2	1	0	1,874	7,166	
Wisconsin	7	3	8	49	3	118	7	2	53	2	6	31	6	1	1	7	8	1	1	22	6	2	--	0	2	3,774	20,191	
Wyoming	63	1	1	3	0	2	0	1	4	3	1	1	0	0	17	1	8	2	0	1	4	0	1	--	5	296	1,085	
TOTAL	896	445	548	7686	617	7406	1016	496	3681	673	611	5019	463	967	710	1767	2182	154	334	2951	1008	514	1782	361	2117	92,607	584,902	

INST: number of institutions; UNK: state unknown

Table A-2: State-to-State Migration of First-time Freshmen in PRIVATE Four-Year Postsecondary Institutions in Fall 1986

Destination State	INST	AL	AK	AZ	AR	CA	CO	CT	DE	DC	FL	GA	HI	ID	IL	IN	IO	KS	KY	LA	ME	MD	MA	MI	MN	MS	MO	MT	
Alabama	18	--	1	1	6	63	10	13	2	4	267	270	0	0	102	33	3	6	13	70	1	26	1*	81	2	80	18	0	
Alaska	6	0	--	1	1	6	1	1	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	3	4	0	0	2	
Arizona	3	0	3	--	1	12	16	1	0	0	0	0	1	4	4	2	0	1	2	0	1	0	3	4	1	0	2	4	
Arkansas	11	23	2	8	--	28	15	1	0	0	19	16	2	0	31	24	5	15	5	73	0	3	1	18	5	43	64	2	
California	119	9	81	376	15	--	344	64	4	20	62	21	306	65	221	43	17	38	21	23	11	34	101	76	105	3	56	34	
Colorado	7	2	4	11	2	51	--	4	1	3	3	2	6	2	20	1	3	6	2	1	3	11	18	3	22	1	13	2	
Connecticut	19	7	6	9	5	205	34	--	16	59	76	27	17	1	93	13	4	11	14	11	54	139	676	37	18	1	30	2	
Delaware	3	0	0	0	0	0	0	6	--	1	0	1	0	0	0	0	0	0	0	0	0	119	0	1	0	0	0	1	
Dist of Columbia	15	37	10	26	19	266	54	269	30	--	217	113	18	10	179	34	12	25	34	60	18	594	335	94	45	11	64	2	
Florida	46	40	22	46	21	136	67	221	19	19	--	318	14	10	183	58	16	17	44	31	57	177	275	139	49	16	40	12	
Georgia	21	78	1	6	4	65	17	53	10	14	412	--	1	1	88	35	3	9	36	42	8	97	54	67	10	16	39	0	
Hawaii	4	6	22	41	5	181	12	8	0	0	28	7	--	26	15	7	6	5	4	4	4	8	8	15	8	4	6	5	
Idaho	2	0	12	2	0	7	20	0	0	0	0	0	0	--	0	0	0	0	0	0	0	1	0	0	0	0	1	4	
Illinois	91	17	8	39	14	240	89	89	7	23	140	47	52	14	--	472	190	52	81	27	45	69	152	373	218	10	333	27	
Indiana	31	11	6	21	13	147	48	77	10	7	121	36	14	4	989	--	64	42	170	25	11	78	94	404	97	5	121	8	
Iowa	27	4	8	11	7	54	76	22	0	4	57	6	9	6	580	49	--	29	12	5	3	12	16	51	259	0	106	11	
Kansas	16	0	1	5	3	8	131	1	0	1	49	2	0	5	24	8	26	--	0	8	1	2	0	0	8	0	151	7	
Kentucky	23	22	2	2	5	4	5	3	3	0	56	45	0	1	17	164	3	1	--	3	1	6	1	17	1	2	15	0	
Louisiana	12	99	1	4	47	65	20	44	5	19	284	104	2	1	111	16	7	15	14	--	4	67	58	24	12	119	75	25	
Maine	14	0	1	1	0	34	17	16	2	9	10	5	2	4	29	3	2	3	6	2	--	39	424	14	11	1	9	2	
Maryland	18	1	2	3	5	39	10	82	59	30	47	10	2	1	25	10	3	2	7	6	9	--	82	14	5	0	7	0	
Massachusetts	66	32	19	62	23	770	136	2472	49	97	422	118	73	12	363	89	34	50	44	49	689	479	--	176	160	13	108	28	
Michigan	44	3	0	3	0	30	5	15	4	3	32	7	3	1	207	157	20	6	12	4	5	28	15	--	47	2	16	3	
Minnesota	33	2	10	16	7	66	70	21	5	9	40	14	10	7	291	47	204	24	11	9	10	32	51	104	--	2	57	95	
Mississippi	13	35	0	1	11	4	2	1	0	0	23	11	0	0	34	4	1	0	6	88	0	1	0	8	2	--	2	0	
Missouri	49	31	12	24	127	100	232	26	6	6	85	37	13	8	796	121	153	210	47	18	10	50	40	66	53	4	--	9	
Montana	7	0	7	1	3	8	0	0	0	0	0	0	2	18	1	2	0	0	0	0	0	1	0	0	7	0	0	--	
Nebraska	14	1	1	12	4	189	3	0	4	9	2	15	4	83	5	272	64	2	1	2	0	0	5	64	0	63	4	4	
Nevada	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	8	0	6	11	3	63	19	203	3	6	39	9	3	1	52	10	6	2	7	4	92	46	581	12	17	1	6	1	
New Jersey	23	7	0	6	5	99	15	130	13	24	50	22	7	1	26	9	2	7	11	7	10	79	101	24	10	4	23	2	
New Mexico	3	1	0	11	0	9	1	0	0	0	0	0	0	0	4	0	0	1	0	0	6	1	0	1	1	0	1	3	
New York	132	20	24	41	14	512	168	1858	81	114	34	78	52	13	322	59	26	25	43	36	255	573	1957	168	103	8	83	13	
North Carolina	37	47	1	6	9	68	21	123	76	104	577	306	1	7	76	42	5	10	49	25	11	503	88	56	8	12	36	0	
North Dakota	4	0	1	1	0	1	8	0	0	0	0	0	0	3	2	2	9	1	0	0	0	0	0	7	36	0	1	69	
Ohio	56	8	4	13	9	94	43	250	19	29	114	50	4	5	337	293	33	15	181	10	38	217	232	361	38	5	76	2	
Oklahoma	11	2	1	5	36	20	45	1	1	1	10	7	0	1	8	9	5	27	1	10	2	3	3	10	3	6	13	3	
Oregon	21	0	72	23	1	295	54	12	0	3	4	6	133	57	11	3	7	6	1	3	1	6	19	5	22	2	4	56	
Pennsylvania	100	13	6	32	3	271	55	667	253	103	185	71	22	4	143	37	12	21	24	25	67	929	501	91	48	4	41	6	
Rhode Island	9	9	4	6	4	101	21	926	11	26	90	26	7	3	79	21	6	4	10	7	126	109	1667	32	22	4	16	5	
South Carolina	19	40	2	6	3	36	25	30	11	0	243	413	4	1	60	62	9	9	28	2	12	30	16	101	8	13	15	1	
South Dakota	8	0	1	5	0	1	7	0	0	0	2	0	0	0	15	1	80	2	1	0	0	1	0	4	109	0	1	3	
Tennessee	40	310	10	18	139	57	19	50	14	6	537	505	0	7	196	152	18	25	360	100	9	106	29	184	15	145	138	2	
Texas	45	23	17	103	170	164	199	42	3	6	146	71	1	10	160	48	28	142	27	202	2	31	27	53	73	78	188	16	
Utah	3	15	26	231	7	856	178	26	7	2	41	22	1	290	50	28	17	16	7	13	4	40	24	29	24	6	44	40	
Vermont	14	3	1	2	2	75	20	185	3	6	14	1	3	1	23	6	3	4	3	1	77	32	481	5	15	1	6	0	
Virginia	19	38	1	3	12	18	5	196	50	58	96	68	1	0	23	6	3	5	29	32	9	372	72	16	5	7	21	0	
Washington	18	1	128	19	0	313	102	4	0	0	3	0	68	147	12	1	4	3	2	3	3	0	6	4	37	0	5	101	
West Virginia	8	0	0	0	0	5	0	18	9	4	20	2	0	0	2	4	0	5	0	5	0	103	13	8	1	0	2	0	
Wisconsin	26	4	6	19	1	40	44	28	2	5	41	7	9	3	1128	79	61	7	12	6	5	26	55	136	215	4	41	4	
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1343	1001	553	1293	766	5707	2683	8410	789	829	5024	2887	909	760	7218	2271	1382	963	1388	1046	1676	5280	8287	3101	2023	633	2157	616	

INST: number of institutions; UNK: state unknown

Table A-2: State-to-State Migration of First-time Freshmen in PRIVATE Four-Year Postsecondary Institutions in Fall 1986

Destination State	NE	NV	NH	NJ	NM	NY	NC	ND	OH	OK	OR	PA	RI	SC	SD	TN	TX	UT	VT	VA	WA	WV	WI	WY	UNK	NR	TOTAL	HOME ST
Alabama	4	0	0	21	0	94	14	0	48	5	1	22	2	22	0	122	36	2	0	16	3	2	7	0	2	1,506	1,941	
Alaska	0	0	3	0	1	3	1	1	2	0	4	0	0	0	0	0	0	1	0	1	9	0	0	0	0	51	125	
Arizona	4	3	0	3	14	5	0	0	2	1	2	0	0	2	0	0	3	4	1	0	8	0	4	3	0	121	328	
Arkansas	4	1	0	5	3	8	5	0	16	56	9	9	0	1	1	73	151	0	0	7	4	5	5	1	0	767	1,386	
California	30	184	9	84	93	165	10	1	47	47	352	64	13	7	4	13	211	40	8	43	435	3	49	25	41	4,128	10,231	
Colorado	4	2	4	8	13	18	1	1	6	3	14	10	0	0	0	4	24	1	2	10	23	0	7	6	0	358	297	
Connecticut	5	4	63	714	6	1454	21	0	71	6	18	247	107	8	1	21	49	3	39	44	32	5	20	0	6	4,509	3,215	
Delaware	0	0	0	144	0	14	0	0	1	0	0	154	1	0	0	0	1	0	1	13	1	0	0	0	0	459	777	
Dist of Columbia	10	2	40	697	15	993	90	4	139	16	11	479	49	35	9	67	118	8	16	369	23	16	48	1	109	5,941	337	
Florida	14	12	59	546	11	751	119	7	225	9	9	385	46	137	4	64	80	6	32	531	43	22	56	10	406	5,631	5,794	
Georgia	8	1	5	133	6	284	77	0	88	6	3	97	7	160	0	97	64	0	1	58	2	7	14	0	5	2,289	2,580	
Hawaii	0	13	1	8	8	26	13	0	15	1	28	13	4	3	3	4	27	113	2	18	61	4	8	2	0	816	1,150	
Idaho	0	1	0	0	0	1	0	0	2	0	69	0	0	0	0	0	1	1	0	0	69	0	0	4	0	195	81	
Illinois	69	8	19	175	11	347	31	14	357	32	44	165	15	12	6	49	99	7	7	63	62	12	412	8	57	4,909	11,329	
Indiana	15	7	15	148	9	333	18	3	655	20	34	275	13	14	11	40	86	3	10	65	28	15	152	6	0	4,598	4,527	
Iowa	79	3	2	18	8	46	4	4	24	15	12	19	2	5	33	2	23	6	4	14	36	2	202	3	13	1,976	3,463	
Kansas	49	1	0	4	7	3	1	2	7	86	2	4	0	1	14	4	61	1	0	5	0	0	3	3	6	705	858	
Kentucky	2	0	1	5	0	14	30	0	349	3	1	18	1	11	0	13	7	0	2	41	1	58	0	0	0	1,061	3,027	
Louisiana	17	5	5	90	7	158	13	0	31	32	8	46	12	17	0	79	209	1	3	39	5	0	12	0	57	2,088	2,355	
Maine	2	0	132	64	0	130	9	1	30	4	8	47	37	0	0	6	4	1	39	17	7	1	6	1	0	1,340	1,224	
Maryland	2	0	10	402	4	351	17	1	43	3	6	362	13	5	0	11	25	1	6	123	6	12	9	0	3	1,876	1,801	
Massachusetts	26	11	797	1792	30	3704	68	10	307	37	69	796	685	35	14	64	244	27	267	265	118	32	110	9	57	16,141	16,270	
Michigan	3	1	5	48	2	136	14	3	356	1	4	43	0	1	2	8	18	1	3	16	12	2	69	2	236	1,614	8,118	
Minnesota	107	4	12	33	14	77	14	147	62	10	15	44	3	0	89	10	42	11	5	14	34	2	535	14	15	2,527	4,622	
Mississippi	0	0	1	1	2	4	1	0	4	2	0	4	0	2	0	63	23	0	0	1	0	0	0	0	2	344	813	
Missouri	94	3	9	72	23	190	18	0	138	173	14	54	9	8	15	68	282	11	2	28	23	4	45	5	63	3,625	4,444	
Montana	2	4	0	1	0	0	0	3	1	0	7	0	0	1	5	0	0	2	0	0	37	0	1	18	0	133	466	
Nebraska	--	3	0	6	6	7	0	18	7	6	4	1	1	0	55	1	20	2	1	1	3	0	31	33	0	1,042	1,357	
Nevada	0	--	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45
New Hampshire	2	2	--	134	3	285	11	0	34	7	10	60	47	1	2	12	25	2	60	24	13	5	9	2	0	1,953	511	
New Jersey	1	0	14	--	3	506	8	1	29	5	4	242	13	9	2	16	50	4	11	51	8	4	12	0	6	1,699	5,197	
New Mexico	1	1	0	0	--	0	0	0	0	7	1	1	0	0	0	0	9	0	0	1	1	0	1	0	0	63	56	
New York	14	7	271	3832	17	--	49	3	386	27	57	1502	222	19	2	45	174	20	237	245	71	28	54	11	214	14,501	36,132	
North Carolina	3	2	12	623	24	482	--	0	149	6	8	266	8	471	0	102	80	0	8	1002	5	81	18	3	9	5,629	5,460	
North Dakota	9	1	0	0	0	2	1	--	4	2	3	1	0	0	70	0	0	1	0	0	5	0	20	11	0	271	216	
Ohio	11	4	44	279	9	790	35	3	--	12	15	800	29	10	2	47	38	3	20	156	31	148	68	4	5	5,043	10,066	
Oklahoma	5	1	0	3	18	4	2	2	9	--	2	3	0	0	15	3	160	1	0	4	6	0	1	1	37	510	1,283	
Oregon	1	23	7	5	9	24	1	0	4	1	--	9	3	0	1	1	12	25	5	4	442	0	4	11	29	1,427	1,166	
Pennsylvania	16	5	64	4621	7	2603	52	1	546	14	33	--	74	17	4	24	124	12	31	244	44	91	38	2	20	12,321	16,960	
Rhode Island	4	1	131	621	4	883	36	1	94	3	11	276	--	37	2	13	41	0	46	75	17	7	14	2	95	5,756	1,314	
South Carolina	2	1	15	35	1	78	239	9	62	4	4	153	5	--	0	77	17	2	0	72	7	23	25	4	0	2,006	2,792	
South Dakota	54	0	0	2	0	3	0	10	1	0	0	1	0	1	--	0	1	0	0	1	0	0	9	14	0	330	693	
Tennessee	7	4	11	99	5	118	180	0	250	32	4	123	5	163	7	--	213	4	2	286	12	63	30	1	6	4,776	3,120	
Texas	69	15	6	65	171	69	19	4	68	257	29	38	7	11	11	113	--	4	2	49	25	7	46	15	153	3,299	7,928	
Utah	12	114	7	21	48	65	24	0	46	28	175	51	5	11	3	17	131	--	5	78	287	8	24	58	1	3,278	1,337	
Vermont	1	2	93	162	2	432	9	0	21	1	8	64	40	6	0	5	12	0	--	25	13	3	11	1	0	1,888	381	
Virginia	1	0	13	398	3	277	59	0	36	1	4	268	11	41	0	54	81	1	6	--	6	52	7	2	1110	3,577	2,199	
Washington	5	15	1	1	15	7	1	7	6	2	425	8	0	2	5	1	9	15	2	4	--	0	2	15	5	1,519	2,247	
West Virginia	0	0	5	69	1	41	5	0	164	0	0	188	1	0	1	5	0	0	7	51	0	--	0	0	0	734	721	
Wisconsin	28	0	16	18	5	35	5	4	91	1	11	53	4	5	9	9	17	3	5	14	17	3	--	3	1	2,345	3,851	
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--	0	0	0	0

TOTAL 796 471 1902 16210 638 16010 1325 256 5033 984 1552 7465 1494 1291 402 1552 3102 350 898 4188 2095 727 2199 314 2769 143,675 196,591