

Analyzing IPEDS Data by State for the Almanac of Higher Education

*A webinar for IPEDS educators sponsored
by the Association for Institutional Researchers
2 p.m. February 7, 2019*

1. Overview of the Almanac
2. How do we choose the IPEDS and other data we run in the States section?
3. How do we find the data?
4. What are our planning and production processes?
5. How do we expect readers to use the information?
6. How might we expect the section to change?

Presenters



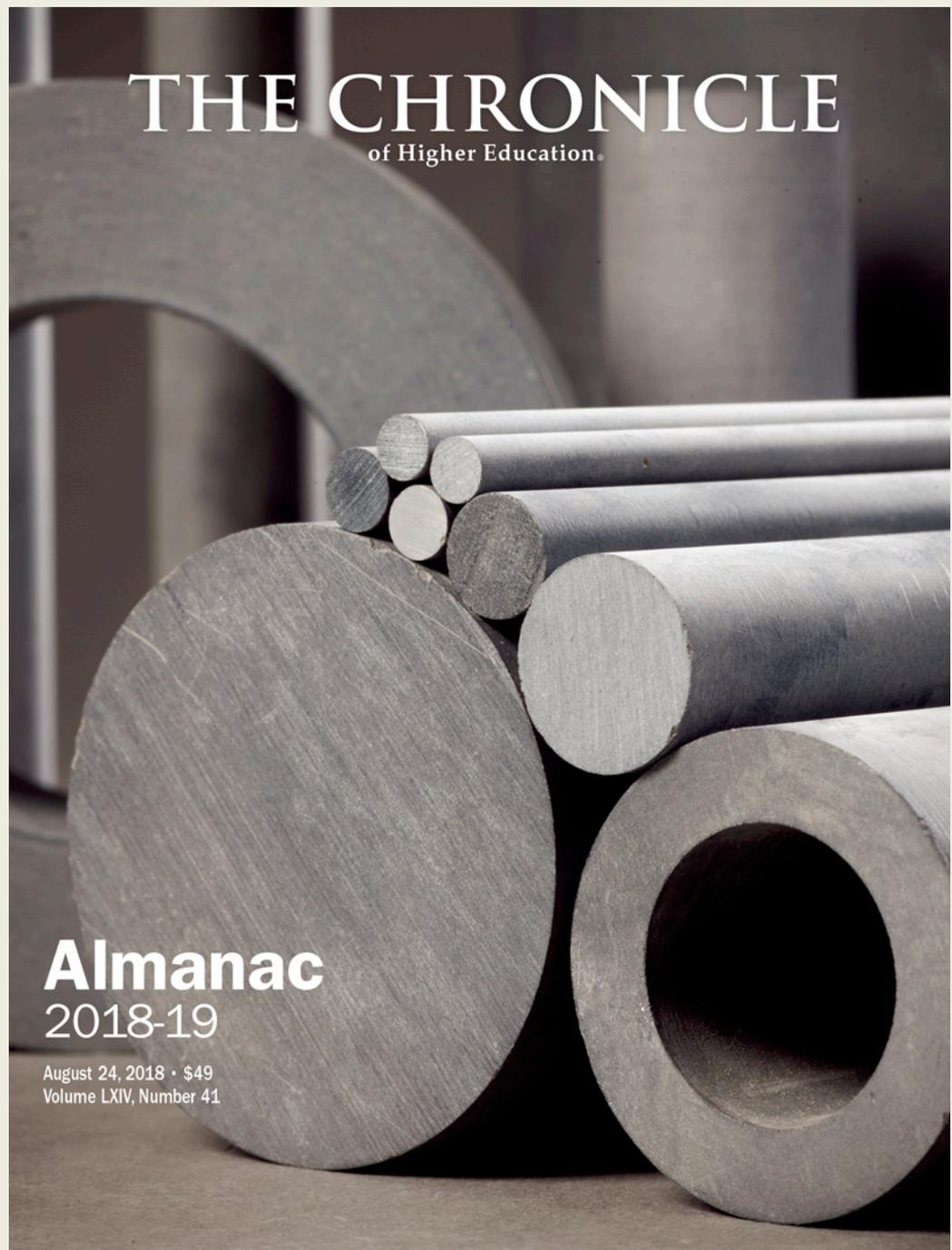
Tyler Davis, data editor
The Chronicle of Higher Education
The Chronicle of Philanthropy



Ruth Hammond, Almanac editor
The Chronicle of Higher Education

Part 1 Overview

Cover of
the 31st annual issue
of Almanac



States section of the 2018 Almanac, in print

ALABAMA

DEMOGRAPHICS

Population: 4,863,300 (Rank: 24)

Age distribution

Up to 4	5.9%
5 to 14	12.6%
15 to 19	6.9%
20 to 24	6.7%
25 to 44	25.2%
45 to 64	26.5%
65 and older	16.2%

Racial and ethnic distribution

American Indian	0.5%
Asian	1.3%
Black	26.8%
Pacific Islander	0.0%
White	68.2%
2 or more races	1.7%
Hispanic	1.9%
Other	1.4%

Educational attainment of adults (highest level)

8th grade or less	4.8%
Some high school, no diploma	10.1%
High school diploma	30.6%
Some college, no degree	21.5%
Associate degree	8.2%
Bachelor's degree	15.4%
Master's degree	6.6%
Doctoral degree	1.0%
Professional degree	1.5%

Proportion who speak a language other than English at home: 5.1%

Per capita income: \$25,810 (Rank: 45)

Poverty rate: 17.1%

New high-school graduates

Estimated for 2018-19	-48,688
Projected change from 2018-19 to 2028-29	-8.6%

High-school dropout rate: 3.5%

18- to 24-year-olds enrolled in college: 41.7%

FACULTY PAY

Average pay of full-time professors

Public doctoral institutions:	
Professor	\$125,014
Associate professor	\$87,713
Assistant professor	\$71,567
All	\$86,336

Private nonprofit master's

Professor	\$82,861
Associate professor	\$67,839
Assistant professor	\$38,915
All	\$63,090

2-year colleges:

Public	\$37,441
Private nonprofit	\$33,789

STUDENTS

Test scores: Students averaged 19.2 on the ACT, which was taken by an estimated 100% of Alabama's high school seniors. Students averaged 1165 on the SAT, which was taken by an estimated 5% of Alabama's high school seniors.

Residence of new students: In the fall of 2016, state residents made up 70% of all freshmen enrolled in Alabama who had graduated from high school in the previous year; 88% of all Alabama residents who were freshmen attended college in-state.

Enrollment

Level:	
Undergraduate	258,454
Graduate and professional	46,044

Institution type:

4-year public	170,003
4-year private nonprofit	24,570
2-year public	81,881
2-year private nonprofit	386
For-profit	1,989
Total	304,498

Share of enrollment

Public institutions	82.6%
4-year institutions	72.5%
2-year	27.5%
Full-time	68.7%

Degrees awarded

Associate	12,880
Bachelor's	31,123
Master's	12,074
Doctorate	2,432

DIVERSITY

Enrollment by race, ethnicity, and citizenship status:

American Indian	1,966
Asian	5,697
Black	77,642
Pacific Islander	273
Hispanic	10,025
White	183,552
2 or more races	6,685
Race unknown	9,475
Nonresident aliens	9,183
Total	304,498

Share of enrollment

Women	56.9%
American Indian	0.6%
Asian	1.9%
Black	25.5%
Pacific Islander	0.1%
Hispanic	3.3%
White	60.3%
2 or more races	2.2%
Race unknown	1.3%
Nonresident aliens	3.0%
Minority	33.6%
Underrepresented minority	29.4%

Conserved or sanctioned by AAUP

Alabama State U., Samford U.

On NCAA probation

Alabama State U., Samford U.

Graduation rates at 4-year institutions:

Up to 4	7.1%
5 to 14	14.1%
15 to 19	6.0%
20 to 24	7.7%
25 to 44	28.9%
45 to 64	25.5%
65 and older	10.2%

Racial and ethnic distribution

American Indian	14.6%
Asian	6.1%
Black	3.2%

FINANCE

Average tuition and fees
4-year public institutions: \$9,520
4-year private nonprofit: \$22,099
2-year public: \$4,378

State funds for higher-education operating expenses:

\$1,618,261,945
One-year change: 3.9%

State spending on student aid

Need-based grants	\$3,272,227
Non-need-based grants	\$4,276,115
Nongrant aid	\$0
Total	\$7,548,342

One-year change: 5.8%

Sources of financing:

Federal government	58.8%
State and local governments	6.2%
Industry	6.4%
Nonprofit	3.2%
Institution itself	24.3%
Other	1.1%

Shares for specific research field:

Engineering	16.4%
Environmental sciences	2.7%
Life sciences	66.0%
Math and computer sciences	5.4%
Physical sciences	3.3%
Psychology	1.1%
Social sciences	1.3%
Other sciences	0.3%
Fields other than science and engineering	3.4%

Public doctoral institutions:

Professor	\$107,359
Associate professor	\$88,097
Assistant professor	\$72,907
All	\$84,879

Private nonprofit doctoral:

Professor	\$105,984
Associate professor	\$87,436
Assistant professor	\$68,915
All	\$81,549

2-year colleges:

Public	\$80,155
Private nonprofit	\$56,571

Graduation rates at 4-year institutions:

All	30.2%
Men	27.4%
Women	32.4%
American Indian	14.8%
Asian	30.6%
Black	13.5%
Hispanic	32.6%
White	32.5%
2 or more races	26.4%
Race unknown	38.5%

FINANCE

Average tuition and fees

4-year public institutions	\$7,204
4-year private nonprofit	\$19,012
2-year public	\$3,820

State funds for higher-education operating expenses:

\$327,222,500
One-year change: -2.5%

State spending on student aid

Need-based grants	\$5,286,667
Non-need-based grants	\$11,047,696
Nongrant aid	\$7,093,744
Total	\$23,428,027

One-year change: -2.5%

Residence of new students:

In the fall of 2016, state residents made up 93% of all freshmen enrolled in Alaska who had graduated from high school in the previous year; 60% of all Alaska residents who were freshmen attended college in-state.

Enrollment

Level:
Undergraduate: 25,997
Graduate and professional: 2,449

Institution type:

4-year public	27,164
4-year private nonprofit	591
Some high school, no diploma	4,736
2-year public	188
2-year private nonprofit	79
2-year for-profit	424
Total	28,446

Share of enrollment

Public institutions	96.2%
4-year institutions	97.6%
2-year	2.4%
Full-time	44.1%

Degrees awarded

Associate	1,372
Bachelor's	1,957
Master's	670
Doctorate	53

DIVERSITY

Enrollment by race, ethnicity, and citizenship status:

American Indian	2,627
Asian	1,546
Black	838
Pacific Islander	205
Hispanic	1,970
White	14,902
2 or more races	2,247
Race unknown	3,569
Nonresident aliens	542
Total	28,446

Share of enrollment

Women	59.3%
American Indian	9.2%
Asian	5.4%
Black	2.9%
Pacific Islander	0.7%
Hispanic	6.4%
White	52.4%
2 or more races	7.9%
Race unknown	12.5%
Nonresident aliens	1.9%
Underrepresented minority	33.2%
Minority	19.1%

Conserved or sanctioned by AAUP

Alaska Pacific U.

On NCAA probation

None

Graduation rates at 4-year institutions:

Up to 4	6.3%
5 to 14	13.2%
15 to 19	6.9%
20 to 24	6.9%
25 to 44	25.7%
45 to 64	24.9%
65 and older	16.9%

Racial and ethnic distribution

American Indian	4.4%
Asian	3.2%
Black	4.3%
Pacific Islander	0.2%
Hispanic	75.8%
2 or more races	3.6%
White	30.9%
Other	8.5%

Enrollment

Level:	
Undergraduate	510,365
Graduate and professional	97,719

Institution type:

4-year public	173,528
4-year private nonprofit	9,800
4-year for-profit	226,853
2-year public	187,872
2-year private nonprofit	n/a
2-year for-profit	10,831
Total	608,084

Share of enrollment

Public institutions	59.4%
4-year institutions	67.5%

Total spending by colleges on research and development:

\$167,308,000
One-year change: 2.6%

Sources of financing:

Federal government	62.1%
State and local government	5.4%
Industry	3.0%
Nonprofit	1.0%
Institution itself	27.9%
Other	0.6%

Shares for specific research field:

Engineering	13.5%
Environmental sciences	41.0%
Life sciences	19.7%
Math and computer sciences	1.5%
Physical sciences	7.6%
Psychology	0.0%
Social sciences	2.4%
Other sciences	11.7%
Fields other than science and engineering	2.5%

Public doctoral institutions:

Professor	\$129,513
Associate professor	\$89,752
Assistant professor	\$75,981
All	\$88,703

Private nonprofit doctoral:

Professor	\$120,415
Associate professor	\$90,299
Assistant professor	\$69,767
All	\$76,245

2-year colleges:

Public	\$70,154
Private nonprofit	\$84,083
All	\$62,787
Private nonprofit	n/a

3 largest by enrollment

U. of Alaska at Anchorage	16,318
U. of Alaska at Fairbanks	8,283
U. of Alaska-Southwest	2,563

Conserved or sanctioned by AAUP

Alaska Pacific U.

On NCAA probation

None

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Alaska Pacific U.

On NCAA probation

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ARIZONA

DEMOGRAPHICS

Population: 6,931,071 (Rank: 14)

Age distribution

Up to 4	6.3%
5 to 14	13.2%
15 to 19	6.9%
20 to	

States section of the 2018 Almanac, online

DATA



Compare the States

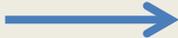
AUGUST 19, 2018

Explore the nine sortable tables below to discover how the states and the District of Columbia compare with each other and with the nation over all in terms of their demographic challenges, the educational level of their residents, faculty pay, college enrollment, diversity, graduation rates, tuition costs, and much more. Return to the main Almanac page.

DEMOGRAPHICS	FACULTY PAY: PUBLIC	FACULTY PAY: PRIVATE
ENROLLMENT BY SECTOR	ENROLLMENT BY GENDER, RACE, ETHNICITY	GRADUATION RATES
STUDENTS	FINANCE	INSTITUTIONS

STATE	POPULATION	MEDIAN AGE	HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT FOR ADULTS					LANGUAGE OTHER THAN ENGLISH SPOKEN AT HOME	POVERTY RATE	PER CAPITA INCOME	PROJECTED CHANGE IN HIGH-SCHOOL GRADUATES OVER NEXT DECADE
			ASSOCIATE DEGREE	BACHELOR'S DEGREE	MASTER'S DEGREE	DOCTORAL DEGREE	PROFESSIONAL DEGREE				
Alabama	4,863,300	39	8.2%	15.4%	6.9%	1.0%	1.5%	5.1%	17.1%	\$25,810	-8.6%
Alaska	741,894	33.5	8.5%	19.0%	7.6%	1.2%	1.8%	16.5%	9.9%	\$34,187	6.1%
Arizona	6,931,071	37.5	8.4%	18.1%	7.8%	1.2%	1.8%	27.1%	16.4%	\$27,997	-12.0%
Arkansas	2,988,248	38	6.7%	14.2%	5.9%	0.9%	1.3%	7.3%	17.2%	\$24,264	-4.0%
California	39,250,017	36.4	7.7%	20.6%	8.4%	1.6%	2.4%	44.6%	14.3%	\$33,389	-8.7%
Colorado	5,540,545	36.7	8.6%	24.9%	10.9%	1.6%	2.3%	17.1%	11.0%	\$34,542	-2.3%
Connecticut	3,576,452	40.9	7.5%	21.9%	12.1%	1.6%	3.0%	22.7%	9.8%	\$41,087	-15.5%
Delaware	952,065	40.6	7.9%	18.4%	8.9%	1.8%	1.9%	12.9%	11.7%	\$31,712	-1.2%
District of Columbia	681,170	33.9	2.9%	24.0%	20.6%	4.3%	8.0%	17.1%	18.6%	\$50,567	22.1%

1988-2018



Part 2

Choosing the States data

1. Tradition
2. Avoiding redundancy with other data in the Almanac
3. Adding new data as they become available

1995 Almanac

What we've kept in States

- State demographic data
- Projections of high-school graduates
- Faculty pay
- Enrollment
- Degrees
- Test scores
- Tuition and other financial data
- AAUP and NCAA penalties

What we've dropped

- State summaries
- Miscellany
- State political leadership
- Top-paid chief executive's salary
- Top endowment
- Top fund raisers
- Graduation rates at NCAA Division 1 colleges
- Higher-education expenditures
- Illustrations

Kentucky CONTINUED	
Statewide national-service agency: Kentucky Community Service Commission State Office Building, Room 923 501 Mero Street Frankfort 40622 (502) 364-5330 David Crowley, executive director	
Institution censured by the AAUP: Murray State University	
Institutions under NCAA sanctions: None	
FACULTY MEMBERS	
Average pay of full-time professors	
Public universities:	
Professor	\$61,932
Associate professor	\$45,157
Assistant professor	\$39,763
All	\$49,500
Other public 4-year institutions:	
Professor	\$49,852
Associate professor	\$41,077
Assistant professor	\$34,744
All	\$40,181
Private universities: n/a	
Other private 4-year institutions:	
Professor	\$42,415
Associate professor	\$34,402
Assistant professor	\$29,584
All	\$33,756
2-year colleges:	
Public	\$31,339
Private	\$25,846

STUDENTS	
Enrollment:	
At public 4-year institutions	107,845
At public 2-year institutions	48,215
At private 4-year institutions	26,221
At private 2-year institutions	4,951
Undergraduate	163,460
Graduate	18,926
Professional	4,946
American Indian	595
Asian	1,797
Black	12,454
Hispanic	1,073
White	168,389
Foreign	3,024
Total	187,332
Enrollment highlights:	
Women	58.3%
Full-time	64.8%
Minority	8.6%
Foreign	1.6%
10-year change in total enrollment	Up 27.9%
Proportion of enrollment made up of minority students:	
At public 4-year institutions	8.7%
At public 2-year institutions	9.1%
At private 4-year institutions	6.1%
At private 2-year institutions	16.7%
Degrees awarded:	
Associate	5,546
Bachelor's	14,396
Master's	4,195
Doctorate	328
Professional	985
Residence of new students: State residents made up 69% of all freshmen enrolled in Kentucky in fall 1992 who had graduated from high school in the previous year; 64% of all Kentucky residents who were freshmen attended college in their home state.	
Test scores: Students averaged 20.1 on the A.C.T., which was taken by an estimated 63% of Kentucky's high-school seniors.	

Graduation rates at NCAA Division I institutions:	
Eastern Kentucky University	30%
Morhead State University	38%
Murray State University	41%
University of Kentucky	50%
University of Louisville	29%
Western Kentucky University	39%
MONEY	
Average tuition and fees:	
At public 4-year institutions	\$1,913
At public 2-year institutions	\$962
At private 4-year institutions	\$6,556
Expenditures:	
Public institutions	\$1,516,017,000
Private institutions	\$315,147,000
State funds for higher-education operating expenses: \$657,669,000 Two-year change: Up 8%	
State spending on student aid:	
Need-based	\$20,619,000
Non-need-based	None
Other	\$8,985,000
Salary of chief executive of largest public 4-year campus: Charles T. Wehington, Jr., University of Kentucky: \$174,270 (1995-96)	
Total spending on research and development by doctoral-granting universities: \$122,409,000	
Sources:	
Federal government	45.3%
State and local governments	5.1%
Industry	11.1%
The institution itself	33.5%
Other	4.8%
Total federal spending on college- and university-based research and development: \$58,818,000	
Selected programs:	
Department of Health and Human Services	\$33,086,000
National Science Foundation	\$7,721,000
Department of Defense	\$1,218,000
Department of Agriculture	\$9,515,000
Department of Energy	\$5,408,000
Largest endowment: Berea College: \$352,704,000	
Top fund raisers:	
University of Kentucky	\$31,536,000
University of Louisville	\$16,991,000
Berea College	\$11,663,000

MISCELLANY	
* The ashes of Supreme Court Justice Louis Brandeis, a Louisville native, are buried under the School of Law at the University of Louisville.	
* The campus of Western Kentucky University is located on a hilltop that was the site of Fort Albert Sidney Johnston, built in 1861 by the Confederate Army. Union forces took possession of the fort in 1862.	
* Western Kentucky University says it is the only institution in the	



country to offer a master's degree in coal chemistry.

* University of Kentucky fans can support their team by eating pasta in the shape of the letters U.K. The officially licensed U.K.-shaped pasta is produced and marketed by the Pasta Shoppe, of Nashville.

* The oldest higher-education institution in the state is Transylvania University, founded in 1780. Following the Civil War, Transylvania merged with another institution and took the name Kentucky University. In 1908 it went back to its original name.

Louisiana

AS LOUISIANA struggled to balance its budgets after oil



prices plummeted in the mid-1980s, the biggest cuts often fell on higher education.

The cumulative effect of that practice finally came home to roost in 1995. When Standard & Poor's dropped the rating for Louisiana's general-obligation debt to A-minus, the main reason was the state's crisis in financing Medicaid. But an underlying reason was its failure to finance higher education adequately.

Public-college officials would not challenge that finding.

They received almost no budget increase for 1995-96 after getting a small one the previous year. Their budgets had been cut many times in the 11 years before that. They almost had to take a midyear cut in 1994, but a projected shortfall was averted by an increase in state revenues from casino gambling.

So it's not surprising that a committee created to study public higher education focused on finances. Gov. Edwin W. Edwards appointed the panel in March 1994. It reported that Louisiana ranked last in the Southeast in its financial support of higher education, and that budgets would have to be increased by almost 50 per cent to achieve even the regional average.

Not only did the group recommend giving the colleges more

money, but it also said colleges should be guaranteed a certain level of support, as are public schools in the state. Higher education is the largest part of the state budget that is not protected by state or federal laws, making it vulnerable to cuts.

Legislators rejected a guarantee, however, saying that giving higher education legal protection would leave too little of the budget available for midyear cuts if a fiscal emergency arose.

Governor Edwards, a Democrat, announced that he would not seek re-election in November 1995. By August, 13 people had announced their candidacies.

Education leaders in Louisiana reached a settlement in the state's 25-year-old desegregation lawsuit in November 1994. The pact required the state to spend \$125-million over the next decade for race-based scholarships and for recruitment efforts to attract black students.

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DEMOGRAPHICS	
Population: 4,315,000 (Rank: 21)	
Age distribution:	
Up to 17	28.6%
18 to 24	10.6%
25 to 44	30.2%
45 and older	30.5%
Racial and ethnic distribution:	
American Indian	0.4%
Asian	1.0%
Black	30.8%
White	67.3%
Other and unknown	0.5%
Hispanic (may be any race)	2.2%
Educational attainment of adults (highest level):	
8th grade or less	14.7%
Some high school, no diploma	17.0%
High-school diploma	31.7%
Some college, no degree	17.2%
Associate degree	3.3%
Bachelor's degree	10.5%
Graduate or professional degree	5.6%
Proportion who speak a language other than English at home: 10.1%	
Per-capita personal income: \$17,651	
Poverty rate: 26.4%	
New high-school graduates in:	
1995-96 (estimated)	42,576
2005-06 (estimate)	36,496
New GED diploma recipients: 8,292	
High-school dropout rate: 12.5%	
POLITICAL LEADERSHIP	
Governor: Edwin W. Edwards (D), term ends 1996	
Governor's higher-education aide: Mari-Ann Fowler, Office of the Governor, P.O. Box 94004, Baton Rouge 70804; (504) 342-0998	
U.S. Senators: John B. Breaux (D), term ends 1999; J. Bennett Johnston (D), term ends 1997	
U.S. Representatives:	
3 Democrats, 4 Republicans	
Richard H. Baker (R), Cleo Fields (D), James A. Hayes (D), William J. Jefferson (D), Bob Livingston (R), Jim McCrery (R), W. J. (Billy) Tazin (R)	
Legislature: Senate, 33 Democrats, 6 Republicans; House, 86 Democrats, 17 Republicans, 1 Independent, 1 vacancy	
COLLEGES AND UNIVERSITIES	
Higher education:	
Public 4-year institutions	14
Public 2-year institutions	6
Private 4-year institutions	11
Private 2-year institutions	2
Total	33
Vocational institutions: 165	
Statewide coordinating board: Louisiana Board of Regents, 150 Third Street, Suite 1209, Baton Rouge 70801 (504) 342-4253	
Not only did the group recommend giving the colleges more	

2018 Almanac

Why we run much of the same information

- Readers expect to find the same data
- Readers like to compare data year to year
- Some people collect Almanacs for years

What we've added

- More detail on diversity in enrollment
- Graduation rates by race
- Largest institutions in each state

What we will add this year

- Color

What we'll drop

- Some of the detail on research-and-development funds

KANSAS

DEMOGRAPHICS

Population: 2,907,289 (Rank: 35)

Age distribution
Up to 4 6.8%
5 to 14 13.8%
15 to 19 7.1%
20 to 24 7.3%
25 to 34 25.2%
35 to 44 24.9%
45 to 64 15.1%

Racial and ethnic distribution
American Indian 0.7%
Asian 2.7%
Black 5.7%
Pacific Islander 0.1%
White 84.6%
2 or more races 3.6%
Hispanic 11.6%
Other 2.5%

Educational attainment of adults (highest level)
8th grade or less 3.6%
Some high school, no diploma 5.8%
High-school diploma 26.2%
Some college, no degree 23.2%
Associate degree 8.3%
Bachelor's degree 20.7%
Master's degree 9.0%
Doctoral degree 1.2%
Professional degree 2.0%

Proportion who speak a language other than English at home: 11.7%

Per capita income: \$28,950 (Rank: 29)
Poverty rate: 12.1%

New high-school graduates
Estimated for 2018-19 ... 35,483
Projected change from 2018-19 to 2028-29 0.9%

High-school dropout rate: 3.9%

18- to 24-year-olds enrolled in college: 42.2%

FACULTY PAY

Average pay of full-time professor
Public doctoral institutions:
Professor \$115,011
Associate professor \$80,279
Assistant professor \$72,155
All \$81,544

Public master's:
Professor \$79,151
Associate professor \$63,985
Assistant professor \$59,162
All \$67,232

Private nonprofit doctoral:
Professor n/a
Associate professor n/a
Assistant professor n/a
All n/a

Private nonprofit master's:
Professor \$64,893
Associate professor \$55,818
Assistant professor \$51,120
All \$54,889

Other 4-year institutions:
Public \$56,167
Private nonprofit \$48,412

2-year colleges:
Public \$51,241
Private nonprofit n/a

STUDENTS

Test scores: Students averaged 21.7 on the ACT, which was taken by an estimated 73% of Kansas' high-school seniors. Students averaged 1260 on the SAT, which was taken by an estimated 4% of Kansas' high-school seniors.

Residence of new students: In the fall of 2016, state residents made up 75% of all freshmen enrolled in Kansas who had graduated from high school in the previous year; 84% of all Kansas residents who were freshmen attended college in-state.

Enrollment
Level:
Undergraduate 186,631
Graduate and professional 27,670
Institution type:
4-year public 100,613
4-year private nonprofit 23,058
4-year for-profit 9,790
2-year public 79,557
2-year private nonprofit n/a
2-year for-profit 1,283
Total 214,301

Share of enrollment
Public institutions 84.1%
4-year institutions 62.3%
2-year 37.7%
Full-time 59.5%

Degrees awarded
Associate 11,008
Bachelor's 20,249
Master's 7,480
Doctorate 1,578

DIVERSITY

Enrollment by race, ethnicity, and citizenship status
American Indian 2,739
Asian 5,544
Black 16,662
Pacific Islander 335
Hispanic 19,576
White 119,808
2 or more races 6,696
Race unknown 10,054
Nonresident aliens 12,887
Total 214,301

Share of enrollment
Women 54.2%
American Indian 1.3%
Asian 2.6%
Black 7.8%
Pacific Islander 0.2%
Hispanic 9.1%
White 65.2%
2 or more races 3.1%
Race unknown 4.7%
Nonresident aliens 6.0%
Minority 24.1%
Underrepresented minority 18.2%

Graduation rates at 4-year institutions
All 53.0%
Men 49.1%
Women 56.8%
American Indian 37.6%
Asian 50.0%
Black 25.1%
Hispanic 43.4%
White 57.2%
2 or more races 42.8%
Race unknown 32.9%

FINANCE

Average tuition and fees
4-year public institutions: \$8,622
4-year private nonprofit: \$25,538
2-year public \$3,199

State funds for higher education operating expenses: \$764,547,532
One-year change: -0.6%

State spending on student aid
Need-based grants \$17,604,310
Non-need-based grants \$0
Nongrant aid \$3,846,981
Total \$21,451,291

Total spending by colleges on research and development: \$559,279,000
One-year change: -0.3%

Sources of financing:
Federal government 39.7%
State and local government 14.2%
Industry 9.6%
Nonprofit 4.4%
Institution itself 31.7%
Other 0.5%

Shares for specific research fields:
Engineering 16.8%
Environmental sciences 3.0%
Life sciences 55.0%
Math and computer sciences 1.7%
Physical sciences 3.9%
Psychology 2.1%
Social sciences 1.2%
Other sciences 1.9%
Fields other than science and engineering 14.4%

INSTITUTIONS

Number
4-year public 8
4-year private nonprofit 24
2-year public 25
2-year private nonprofit 0
2-year for-profit 6
Total 70

3 largest by enrollment
U. of Kansas 27,565
Kansas State U. 23,779
Johnson County Community College 19,139

Censured or sanctioned by AAUP
None

On NCAA probation
None

KENTUCKY

DEMOGRAPHICS

Population: 4,436,974 (Rank: 26)

Age distribution
Up to 4 6.2%
5 to 14 12.7%
15 to 19 6.9%
20 to 24 6.7%
25 to 34 25.2%
35 to 44 26.8%
45 to 64 15.3%

Sources and notes appear on Page 114

Racial and ethnic distribution
American Indian 0.3%
Asian 1.4%
Black 8.3%
Pacific Islander 0.1%
White 87.1%
2 or more races 2.1%
Hispanic 3.4%
Other 0.8%

Educational attainment of adults (highest level)
8th grade or less 5.7%
Some high school, no diploma 8.6%
High-school diploma 32.3%
Some college, no degree 21.4%
Associate degree 8.6%
Bachelor's degree 14.0%
Master's degree 6.8%
Doctoral degree 1.0%
Professional degree 1.7%

Proportion who speak a language other than English at home: 5.2%

Per capita income: \$26,046 (Rank: 43)

Poverty rate: 18.5%

New high-school graduates
Estimated for 2018-19 ... 46,379
Projected change from 2018-19 to 2028-29 -7.4%

High-school dropout rate: 5.2%

18- to 24-year-olds enrolled in college: 38.9%

FACULTY PAY

Average pay of full-time professor
Public doctoral institutions:
Professor \$115,039
Associate professor \$83,794
Assistant professor \$70,936
All \$86,716

Public master's:
Professor \$83,385
Associate professor \$66,962
Assistant professor \$60,177
All \$64,229

Private nonprofit doctoral:
Professor \$57,684
Associate professor \$49,167
Assistant professor \$46,593
All \$50,995

Private nonprofit master's:
Professor \$71,171
Associate professor \$59,678
Assistant professor \$51,131
All \$57,044

Other 4-year institutions:
Public \$57,605
Private nonprofit \$60,478

2-year colleges:
Public \$51,500
Private nonprofit n/a

STUDENTS

Test scores: Students averaged 20.0 on the ACT, which was taken by an estimated 10.0% of Kentucky's high-school seniors. Students averaged 1247 on the SAT, which was taken by an estimated 4% of Kentucky's high-school seniors.

Residence of new students: In the fall of 2016, state residents made up 79% of all freshmen enrolled in Kentucky who had graduated from high school in

the previous year; 88% of all Kentucky residents who were freshmen attended college in-state.

Enrollment
Level:
Undergraduate 217,951
Graduate and professional 41,050
Institution type:
4-year public 126,021
4-year private nonprofit 45,261
4-year for-profit 2,678
2-year public 79,410
2-year private nonprofit n/a
2-year for-profit 631
Total 259,001

Share of enrollment
Public institutions 79.3%
4-year institutions 69.1%
2-year 30.9%
Full-time 62.1%

Degrees awarded
Associate 12,287
Bachelor's 23,296
Master's 9,864
Doctorate 2,242

DIVERSITY

Enrollment by race, ethnicity, and citizenship status
American Indian 630
Asian 4,488
Black 21,405
Pacific Islander 271
Hispanic 8,656
White 199,974
2 or more races 7,025
Race unknown 9,152
Nonresident aliens 7,399
Total 259,001

Share of enrollment
Women 56.9%
American Indian 0.2%
Asian 1.7%
Black 8.3%
Pacific Islander 0.1%
Hispanic 3.3%
White 77.2%
2 or more races 2.7%
Race unknown 3.5%
Nonresident aliens 2.9%
Minority 16.4%
Underrepresented minority 11.8%

Graduation rates at 4-year institutions
All 50.4%
Men 45.3%
Women 54.6%
American Indian 33.3%
Asian 68.6%
Black 33.8%
Hispanic 49.4%
White 52.7%
2 or more races 41.4%
Race unknown 38.4%

FINANCE

Average tuition and fees
4-year public institutions: \$10,061
4-year private nonprofit: \$27,209
2-year public \$3,960

State funds for higher education operating expenses: \$1,179,159,100
One-year change: 0.2%

Continued on Following Page

Part 3

Finding the States data

More than 30 separate tables make up the States section.

Sources:

1. IPEDS data from the U.S. Department of Education (faculty pay, graduation rates, diversity, tuition and fees, and much more)
2. Census Bureau's American Community Survey (demographics)
3. Western Interstate Commission for Higher Education (projected change in high-school graduates)
4. ACT and College Board (test scores)
5. Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers (state funds for operating expenses)
6. National Association of State Student Grant and Aid Programs (state student aid)
7. National Science Foundation (research funds)
8. American Association of University Professors (sanctions)
9. National Collegiate Athletic Association (probation)

Links are on our online States data page, under the table

<https://www.chronicle.com/interactives/almanac-2018>

About the data

Data cover all degree-granting institutions in the United States that are eligible to receive Title IV federal financial aid, unless otherwise specified. Data on state population, age distribution, educational attainment, the proportion of state residents who speak a language other than English at home, per capita income, and the poverty rate are from the U.S. Census Bureau's 2016 American Community Survey. Racial categories include people of Hispanic origin, and the percentage of Hispanics is also given separately.

The projected change in new high-school graduates over the next decade is estimated for the period from 2018-19 to 2028-29. Data are from the Western Interstate Commission for Higher Education.

Overall enrollment, enrollment by race and ethnicity, and the number of institutions in each sector are from the U.S. Department of Education for the fall of 2016. Minority enrollment represents American Indians/Alaska Natives, Asians, blacks, Hispanics, Native Hawaiians/Pacific Islanders, and students of two or more races. Racial categories for enrollment exclude people of Hispanic ethnicity, who are shown separately and may be of any race. "Nonresident aliens" are natives of foreign countries who are studying in the United States on a temporary basis. Percentages may not add to 100 because students whose race was unknown were excluded.

Average pay of full-time professors is from the 2016-17 academic year, as reported to the U.S. Department of Education, and is adjusted to a standard nine-month work year. Medical-school faculty members are excluded. The number of degrees awarded is based on U.S. Department of Education data collected for the 2015-16 academic year. Professional degrees like medical and law degrees are included in the number of doctorates. Average tuition and fees cover undergraduate charges for 2016-17 and are weighted by full-time-equivalent undergraduate enrollment. Figures for public institutions represent charges to state residents. Six-year graduation rates are for first-time, full-time, degree-seeking students who entered degree-granting four-year institutions in the fall of 2010 and graduated within six years. Those figures are also from the U.S. Department of Education.

SAT scores are for 2017; figures are from the College Board. ACT scores are also for 2017. One-year change in state funds for higher-education operating expenses reflect the difference between 2016-17 and 2017-18; data are from the Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers. Total state spending on student aid is for 2015-16; data are from the National Association of State Student Grant and Aid Programs.

Figures on state spending for higher-education operating costs cover 2017-18 and are from the Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers. Data on state spending on student aid are for 2015-16 and are from the National Association of State Student Grant and Aid Programs.

Links are also
on our Sources & Notes page
in print.

SOURCES & NOTES

THREE sources and notes explain data for the individual 50 states and the District of Columbia, as well as the summary data for the United States on Pages 80–81.

The figures are comparable from state to state and are from the latest year for which data are available. The time period covered by the statistics varies from item to item, as indicated below. Data are for all degree-granting institutions eligible to receive Title IV federal financial aid, unless otherwise specified.

The U.S. Department of Education typically releases statistics from its surveys of colleges and universities a few years after collecting the data. Figures in this section are based on those data as of March 2018. Some revisions have been made since then, based on institutions' reports to *The Chronicle* that their data were incorrect.

Percentages are rounded and may not add up to 100 percent. The designation "n/a" indicates that the data are not available or not applicable.

DEMOGRAPHICS

Population:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

Age distribution:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

Racial and ethnic distribution:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: The Census Bureau considers race separately from Hispanic origin. Therefore, percentages for the various race categories add up to 100 percent and should not be combined with the Hispanic percentage.

Educational attainment of adults (highest level):
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Figures describe people 25 years old and older.

Proportion who speak a language other than English at home:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Figures cover people 5 years old and older.

Per capita income:
SOURCE: Census Bureau, Amer-

ican Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Per capita income is the mean money income received in the past 12 months computed for every man, woman, and child in a geographic area. It is derived by dividing the total income of all people 15 years old and older in a geographic area by the total population in that area. It comprises all income, including wages or salary, net self-employment income, interest and dividends, Social Security income, and public assistance or welfare payments. It does not include the value of income "in kind" from food stamps, public-housing subsidies, or medical care; lump-sum inheritances; insurance payments; and other types of lump-sum receipts.

Poverty rate:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Poverty thresholds vary by family size and composition. In 2016, for example, the average threshold for a family of four was \$24,563.

New high-school graduates and projected change in number of graduates:
SOURCE: Western Interstate Commission for Higher Education (<https://knocking.wiche.edu>)
DATE: 2016

High-school-dropout rate:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Figures describe people 16 to 19 years of age who are not enrolled in school and are not high-school graduates.

18- to 24-year-olds enrolled in college:
SOURCE: Census Bureau, American Community Survey (<https://census.gov/acs>)
DATE: 2016

NOTE: Only enrollment in degree-granting postsecondary institutions is included.

Average pay of full-time professors:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: 2016-17

NOTE: Figures cover only full-time members of the instructional staff at degree-granting institutions and are adjusted to a standard nine-month work year. Medical-school faculty members are excluded. The average for "all" faculty members includes the listed categories along with full-time instruc-

tors, lecturers, and faculty members without rank.

Share of enrollment:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: All proportions are based on total enrollment. "Minorities" are American Indian/Alaska Natives, Asians, blacks, Hispanics, Hawaiians/Pacific Islanders, and students of two or more races. *Under-represented minorities" are American Indian, black, and Hispanic students, who attend

college at disproportionately low rates compared with their representation in the U.S. population.

STUDENTS

Test scores:
SOURCE: ACT (<https://www.act.org>), College Board (<https://collegeboard.org>)
DATE: ACT, 2017; SAT, 2017

NOTE: The ACT is scored on a scale of 1 to 36. SAT scores include both math and evidence-based reading and writing, which together are scored on a scale of 400 to 1600. The SAT composite average for the United States includes Puerto Rico and the U.S. Virgin Islands.

Residence of new students:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: Figures cover only freshmen who graduated from high school in the previous year.

Enrollment:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: Figures show total enrollment of full- and part-time undergraduate, graduate, and professional students. Some states' figures include large numbers of students living elsewhere who enrolled in online courses offered by institutions based in those states.

Degrees awarded:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: 2015-16

NOTE: Doctorates include professional degrees such as medical and law degrees.

DIVERSITY

Enrollment by race, ethnicity, and citizenship status:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: Figures for racial categories exclude people of Hispanic ethnicity, who are shown separately and may be of any race. This approach differs from that of the Census Bureau in the Demographics section.

"Nonresident aliens" are natives of foreign countries who are studying in the United States on a temporary basis.

Share of enrollment:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: All proportions are based on total enrollment. "Minorities" are American Indian/Alaska Natives, Asians, blacks, Hispanics, Hawaiians/Pacific Islanders, and students of two or more races. *Under-represented minorities" are American Indian, black, and Hispanic students, who attend

college at disproportionately low rates compared with their representation in the U.S. population.

Graduation rates at 4-year institutions:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: 2016

NOTE: Figures show the proportion of first-time, full-time, degree-seeking undergraduates who entered degree-granting four-year institutions in the fall of 2010 and graduated within six years.

FINANCE

Average tuition and fees:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: 2016-17

NOTE: The figures cover charges for undergraduates and are weighted by full-time-equivalent undergraduate enrollment. The figures for public institutions represent charges to state residents.

State funds for higher-education operating expenses:
SOURCE: Center for the Study of Education Policy at Illinois State University and the State Higher Education Executive Officers (<http://grapevine.illinoisstate.edu>)
DATE: 2017-18

NOTE: Figures are estimates released in January 2018 of the one-year change from 2016-17 to 2017-18 and do not reflect midyear budget reductions made after that date. Spending includes state tax appropriations and other state monies appropriated for colleges and universities, student aid, and governing and coordinating boards. North Dakota and Wyoming each enact a single budget every two years. The District of Columbia is excluded from the U.S. total.

State spending on student aid:
SOURCE: National Association of State Student Grant and Aid Programs (<https://naasgpp.org>)
DATE: 2015-16

NOTE: The statistics cover aid to both undergraduate and graduate students. The category "nongrant aid" includes loans, tuition waivers, work-study, loan-assumption programs, and conditional grants. Student-aid totals for the United States include the District of Columbia and Puerto Rico.

Total spending by colleges on research and development:
SOURCE: National Science Foundation (<https://nsf.gov>)
DATE: 2015-16

NOTE: Figures are based on reporting by colleges and universities.

INSTITUTIONS

Number:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: 2016-17

NOTE: Statistics include two- and four-year degree-granting postsecondary institutions eligible to participate in Title IV federal-aid programs. Public institutions include those operated by local and state governments, as well as military academies and other institutions operated by the federal government.

3 largest by enrollment:
SOURCE: U.S. Education Department (<https://nces.ed.gov>)
DATE: Fall 2016

NOTE: Figures represent the total of all full- and part-time undergraduate and graduate students enrolled as of the institution's official fall reporting date or as of October 15.

Censured or sanctioned by the AAUP:
SOURCE: American Association of University Professors (<https://aaup.org>)
DATE: Action as of June 30, 2018

NOTE: The AAUP censures the administrations of institutions that it finds have violated the standards of academic freedom and tenure it developed in 1940 with the Association of American Colleges & Universities. The standards seek to protect the rights of faculty members to free speech without fear of penalty, and to due process in decisions on appointment, promotion, and tenure. The association also sanctions institutions for infringements of shared governance. The six institutions that have received that sanction are identified with the word "governance."

On NCAA probation:
SOURCE: National Collegiate Athletic Association (<https://ncaa.org>)
DATE: Current as of June 30, 2018

NOTE: Most of the listed institutions are on probation for infractions of NCAA rules regarding academic eligibility, amateurism, financial aid, recruiting, and other standards. The association also punishes institutions on probation for failing to sponsor the minimum number of sports required by their NCAA division. The seven institutions on probation for that reason are identified with the word "sponsorship." An eighth institution, Wheelock College, was on probation for sponsorship, but it was omitted from the list because it merged with Boston University in June 2018.

Example of a useful source: The Western Interstate Commission for Higher Education has great visualizations projecting the number of high-school graduates to 2032.

See <https://knocking.wiche.edu/nation-region-profile/>



Dashboards

NATION & REGION PROFILES STATE PROFILES CHANGE IN NUMBER OF GRADUATES PERCENT CHANGE IN GRADUATES
MALE & FEMALE GRADUATES

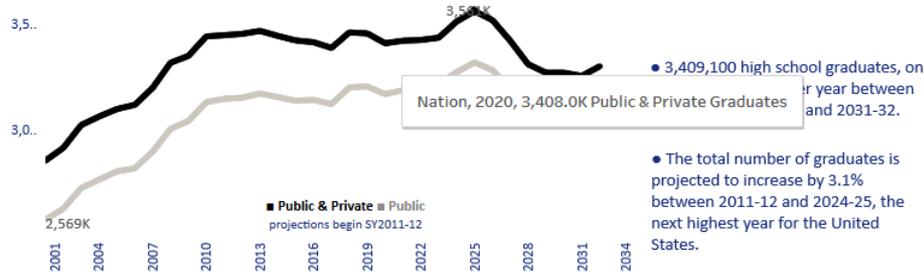
Best viewed on a tablet or desktop. Hover and click to see data details. Larger downloadable charts available from tabs across the top. **Download options are at the bottom of each view.**

Nation & Region Profile Overall Public Race/Eth Private Schools

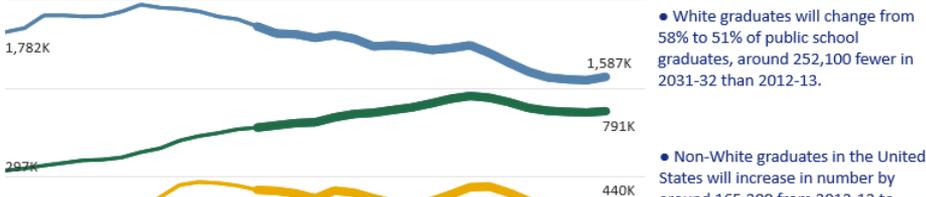
Profile for the Nation

Nation

Overall High School Graduate Trends



Trends in Public Schools



Part 4

Planning and production

1. We decide what we will run each year based on what has worked in the past.
2. We do the print States section first.
3. Editors double-check all the data against original data by ticking off figures.
4. Designers lay out the pages for print.
5. Tyler and Brian O'Leary, our interactive news editor, export the States data to execute the online version of the table.
6. Ruth and copy editors review the final data online and in print, double-checking them against the original data, and offering any corrections.

Before 2013, we used FileMaker to export data.

FileMaker Pro
 File Edit View Insert Format Records Scripts Window Help

CHE_Almanac (Hyperion)

52 Total (Unsorted)
 Records Show All New Record Delete Record Find Sort

Layout: Finance View As: Preview

ALMANAC

US 2012-13

Almanac Demographics **Finance** Profession Students Access Colleges Checklist Reports Admin

FINANCE

8.11 - Average Tuition & Fees **OK**

At public 4-year institutions	\$7,136
At public 2-year institutions	\$2,439
At private 4-year institutions	\$22,771

8.14 - State Appropriations **OK**

State funds for higher-education operating expenses: \$72,543,813,412

One-year change: -7.5 **x100**

Map -7.458460172474 **x100**

-7.45846017247435

8.12 - Student Aid **OK**

State spending on student aid: **2012 NEW**

Need-based grants	\$6,543,322,000
Non-need-based grants	\$2,698,392,000
Nongrant aid	\$1,813,221,000
Total	\$11,054,934,000

Calculated Total **\$11,054,935,000** (?)

8.13 - Top Fund Raisers **OK**

Plural: **Yes**

Top fund raisers:

Fin_TopFundraisers_cu

Stanford University \$709,422,838

8.17 - Largest Endowment **OK**

Harvard University \$31,728,080,000

8.16 - Total Research & Development **OK**

Total spending on research and development by colleges and universities:

8.16 - Total \$61,234,893,000 **x1,000**

One-year change: 6.88844937 **x100**

Print 6.9%

8.16 - Sources Sources of financing: **x100**

Federal government	61.2194635	Clean R&D
State and local governments	6.29314074	
Industry	5.24119639	
Nonprofit	6.14729742	
Institution itself	19.4288247	
Other	1.67007722	

8.16 - Discipline Share for specific research fields:

Engineering	15.2595955
Environmental sciences	4.88296273
Life sciences	56.9982102
Math and computer sciences	3.6850836
Physical sciences	7.55218924
Psychology	1.75857252
Social sciences	2.05462704

We list all the tables that make up the States section in a Google Doc.

Almanac Planner 2019 ☆

File Edit View Insert Format Data Tools Form Add-ons Help All changes saved in Drive

100% \$ % .0 .00 123 Arial 10 B I S A

2017, but we have not been able to get these numbers the past few years so we can skip this if still unavailable.

Table No.	Table Title	Person who will pull data	Status	Subcategory	Data Source	Year for data-Updated for 2019	Data Source URL	Second URL
2	100 Population:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP05/0100000US/0100000US.04000
3	101 Age distribution:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP05/0100000US/0100000US.04000
4	102 Racial and ethnic distribution:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP05/0100000US/0100000US.04000
5	103 Educational attainment of adults (highest level):	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://www.census.gov/data/tables/2016/demo/education-attainment/cps-detailed-tables.html https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/B15003/0100000US/0100000US.04000
6	104 Proportion who speak a language other than English at home:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP02/0100000US/0100000US.04000
7	105 Per capita income:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP02/0100000US/0100000US.04000
8	106 Poverty rate:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/DP03/0100000US/0100000US.04000
9	107 New high-school graduates:	Tyler	To do	Demographics	WICHE 2016	number for 2018-19 and projected change for 2018-19 to 2028-29	http://www.census.gov/acs	knocking.wiche.edu
10	108 New GED diploma recipients: (if you can't get recent data, let's omit this in the 2019 Almanac)	Tyler	Could skip	Demographics	GED Testing Service	2017, but we have not been able to get these numbers the past few years so we can skip this if still unavailable.	http://www.census.gov/acs	www.gedtesting.com
11	109 High-school dropout rate:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	http://www.census.gov/acs	https://factfinder.census.gov/bkmk/table/1.0/en/ACS/16_1YR/B14005/0100000US/0100000US.04000
12	110 18- to 24-year-olds enrolled in college:	Tyler	To do	Demographics	Census Bureau, American Community Survey	2017	https://www.census.gov/acs/www	Downloaded the American Community Survey table that includes these data points, and put into the States folder.
13	200 Average pay of full-time professors Public doctoral institutions:	Tyler	To do	Faculty pay	Education Dept.	2017-18		
14	201 Public master's:	Tyler	To do	Faculty pay	Education Dept.	2017-18		

Producing States Data

1. We use a set of Python scripts to prepare and export States data to print and web.
2. The States section depends on data from non-IPEDS sources as well as IPEDS.
3. The IPEDS data are fairly straightforward, as we keep a set of internal IPEDS databases dating back to the 1990s.

The screenshot shows the GitLab interface for the 'almanac-states' project. The project details include 308 commits, 2 branches, 0 tags, and 22.9 MB of files. A recent commit by Tyler Davis is highlighted, with the message 'some final edits on states.py and added SQL files for creating online tables'. Below the commit, there are buttons for 'README', 'Add CHANGELOG', 'Add CONTRIBUTING', 'Auto DevOps enabled', and 'Add Kubernetes cluster'. A table lists the project's files and their last commit details.

Name	Last commit	Last update
importers	final tweaks for 2018 almanac	6 months ago
models	Updates for 2017 states section	1 year ago
online/sql	some final edits on states.py and added SQL files for cre...	5 months ago
readme	updated readme with justin's brain dump	3 years ago
renderers	some final edits on states.py and added SQL files for cre...	5 months ago
.gitignore	update non-ipeds sources and scripts for almanac 2016	2 years ago
IDS.md	Added clarification to ID example	5 years ago
README.md	update ipeds queries and readme	2 years ago
init.py	Initial commit	5 years ago

IPEDS_1991
IPEDS_1992
IPEDS_1993
IPEDS_1994
IPEDS_1995
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IPEDS_2003
IPEDS_2004
IPEDS_2005
IPEDS_2006
IPEDS_2007
IPEDS_2008
IPEDS_2008_BACKUP_20171219
IPEDS_2009
IPEDS_2010
IPEDS_2011
IPEDS_2012
IPEDS_2012_BACKUP_170403
IPEDS_2013
IPEDS_2014
IPEDS_2014_BACKUP_20171212
IPEDS_2015
IPEDS_2015_BACKUP_20171212
IPEDS_2015_BACKUP_20171219
IPEDS_2016

Updating Sources

1. The export process is fairly automated — sources and queries are the only things that need to be updated annually.
2. Generally this involves updating any URLs to our non-IPEDS sources.
3. Any data we cannot download via Python needs to be requested and the paths to the files need to be updated in our scripts (ACT, SAT, Census).
4. IPEDS queries need to be updated to use the correct academic year's data.

```
for state in states:
    state_record = state['state']

    state['institutions'] = ipeds_conn.execute("""
        SELECT
            COUNT(
                CASE WHEN
                    `hd2016`.`ICLEVEL` = 1 # Four-year
                    AND `hd2016`.`CONTROL` = 1 # Public
                THEN
                    `hd2016`.`UNITID`
                END
            ) AS `public_4`,
```

```
acs_dp05_zip = zipfile.ZipFile(
    os.path.join(
        SOURCES_PATH, 'che_state_demographics',
        'ACS_16_1YR_DP05.zip'),
    'r', zipfile.ZIP_DEFLATED)
```

Exporting States Data to Print

1. Once the sources are updated, the scripts can be run and will export the data to a text file that can be imported into InDesign to render the print States section.
2. The page previews first go out to editors, and I make any programmatic changes that need to be resolved on the text file itself before the page goes to designers.
3. This file contains all the styles and structure the print page needs, so the designer can focus on details and other fixes that need to be made.
4. The file is similar to HTML or XML in structure, and the text file itself is very ugly.

```
aces<0x0009>2.6%<ParaStyle:Almanac-Standard One Tab>Race unknown<0x0009>5.4%<ParaStyle:Almanac-Standard One T
Tab>Men<0x0009>65.2%<ParaStyle:Almanac-Standard One Tab>Women<0x0009>69.0%<ParaStyle:Almanac-Standard One Tab>
unknown<0x0009>58.7%<ParaStyle:\* categories gray bar><CharStyle:\* categories gray bar-text>FINANCE<ParaStyle
8.5>State funds for higher-education operating expenses: <CharStyle:>$1,143,736,037<ParaStyle:Almanac-Space Be
aid<0x0009>$104,142,119<ParaStyle:Almanac-Space Below One Tab>Total<0x0009>$146,171,728<ParaStyle:Almanac-Half
governments<0x0009>1.2%<ParaStyle:Almanac-Standard One Tab>Industry<0x0009>6.2%<ParaStyle:Almanac-Standard One
Tab>Life sciences<0x0009>77.2%<ParaStyle:Almanac-Indent One Tab>Math and computer sciences<0x0009>1.6%<ParaSty
categories gray bar-text>INSTITUTIONS<CharStyle:><ParaStyle:Almanac-Standard Head One Tab><CharStyle:Almanac-H
below>2-year for-profit<0x0009>0<ParaStyle:Almanac-Space Below One Tab>Total<0x0009>44<ParaStyle:Almanac-Stand
sanctioned by AAUP<cTracking:><ParaStyle:Almanac-Space Below One Tab><pHyphenationLadderLimit:0><pHyphenation:
Tab><pHyphenationLadderLimit:0><pHyphenation:0><pMinCharAfterHyphen:3><pMaxWordSpace:5.000000><pMinWordSpace:1
One Tab>Up to 4<0x0009>5.8%<ParaStyle:Almanac-Standard One Tab>5 to 14<0x0009>11.9%<ParaStyle:Almanac-Standard
distribution<CharStyle:><ParaStyle:Almanac-Standard One Tab>American Indian<0x0009>0.4%<ParaStyle:Almanac-Stan
Tab>Other<0x0009>1.6%<ParaStyle:Almanac-Standard Head One Tab><CharStyle:Almanac-Head 8.5>Educational attainme
degree<0x0009>7.9%<ParaStyle:Almanac-Standard One Tab>Bachelor<0x2019>s degree<0x0009>18.4%<ParaStyle:Almanac-
Below One Tab><CharStyle:Almanac-Head 8.5><cTracking:-5>Per capita income: <cTracking:><CharStyle:><0x000A>$31
29<0x0009><0x2013>1.2%<ParaStyle:Almanac-Space Below One Tab><CharStyle:Almanac-Head 8.5>High-school dropout r
Tab><CharStyle:Almanac-Head 8.5>Public doctoral institutions:<CharStyle:><ParaStyle:Almanac-Standard One Tab>P
Tab>Professor<0x0009>$85,482<ParaStyle:Almanac-Standard One Tab>Associate professor<0x0009>$73,444<ParaStyle:A
Standard One Tab>Assistant professor<0x0009>$59,910<ParaStyle:Almanac-Half Space Below>All<0x0009>$64,291<Char
```

Exporting States Data to Web

1. For the web, we must first export the year's IPEDS data to a table - this is usually a massive query with many joins across several IPEDS tables that yields all the fields we discuss in States.
2. Our scripts already exported the non-IPEDS data to a table, so all that is left is to join the IPEDS data to the non-IPEDS data and to ensure the final table's structure closely matches the structure of the table we use last year.
3. Below is a sample of the table that powers our online Compare the States section.
4. The table itself has more than 100 fields.

FIPS	STABBR	ap	state_name	almanac_year	acs_year	bea_year	wiche_year	act_year	sat_year	nces_year	nassgap_year	grapevine_year	num_public_4	r
01	AL	Ala.	Alabama	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	14	
10	DE	Del.	Delaware	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	3	
11	DC	D.C.	District of Columbia	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	2	
12	FL	Fla.	Florida	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	39	
13	GA	Ga.	Georgia	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	30	
15	HI	Hawaii	Hawaii	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	4	
16	ID	Idaho	Idaho	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	4	
17	IL	Ill.	Illinois	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	12	
18	IN	Ind.	Indiana	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	15	
19	IA	Iowa	Iowa	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	3	
02	AK	Alaska	Alaska	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	3	
20	KS	Kan.	Kansas	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	8	
21	KY	Ky.	Kentucky	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	8	
22	LA	La.	Louisiana	2018	2016	N/A	2017	2017	2017	N/A	2015	2017	17	

The States » Choose a section »



New Mexico: Almanac 2012

DEMOGRAPHICS

State: **Nation:**

Population:

State rank: 36 2,059,179 308,745,538

Age distribution:

	State:	Nation:
Up to 4	7.0%	6.5%
5 to 14	13.8%	13.3%
15 to 19	7.3%	7.1%
20 to 24	6.9%	7.0%
25 to 44	25.0%	26.6%
45 to 64	26.7%	26.4%
65 and older	13.2%	13.0%

Previously, we ran a table for each state online, with a comparison to the national total.

AUGUST 26, 2012 ✓ PREMIUM

The States » Choose a section »



Almanac 2012: A Comparison of the 50 States: Key Measures in Higher Education

State	Average salary, full professor, public doctoral institution, 2010-11	% of students who are members of minority groups, fall 2010	6-year graduation rates, 2010	% of adults with bachelor's degree or above, 2010	% of adults with master's degree or above, 2010	Average tuition and fees, 4-year public institutions, 2010-11	Average tuition and fees, 4-year private institutions, 2010-11	Change in state spending for higher-ed operations, 2011-12
Alabama	\$106,204	31.5%	47.5%	22%	7.8%	\$6,808	\$16,649	-5.0%
Alaska	\$100,107	33.3%	26.6%	27%	9.8%	\$5,578	\$21,070	4.0%
Arizona	\$113,769	27.0%	57.1%	26%	9.6%	\$7,685	\$12,261	-25.0%
Arkansas	\$90,884	23.0%	38.7%	19%	6.4%	\$6,117	\$16,103	-1.0%
California	\$128,650	42.4%	65.1%	30%	10.9%	\$7,357	\$26,519	-13.0%
Colorado	\$106,155	18.7%	53.3%	36%	12.8%	\$6,670	\$19,116	-15.0%
Connecticut	\$122,151	22.4%	61.5%	35%	15.2%	\$8,854	\$32,581	-12.0%
Delaware	\$132,536	31.1%	70.8%	28%	11.1%	\$9,646	\$12,989	0.0%

In 2012, we also ran one comparative table with just nine measures of comparison. Our current States interactive table has 85 data points that readers can compare.

In 2017, we did the first extensive sortable comparison table on the web, but we had only five categories of data instead of the nine we had in 2018 .

DATA



Compare the States

AUGUST 13, 2017

Explore the five sortable tables below to discover how the states and the District of Columbia compare in terms of their demographic challenges, the educational level of their residents, faculty pay, college enrollment, tuition costs, and much more. For an overview of higher education in the country, see the United States page. Return to the main Almanac page.

OVERVIEW	ENROLLMENT		GRADUATION RATES			FINANCE		DEMOGRAPHICS	
STATE	ALL	MEN	WOMEN	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	WHITE	2 OR MORE RACES
Alabama	49.0%	44.8%	52.6%	40.0%	62.1%	31.8%	51.4%	58.4%	41.2%
Alaska	32.0%	29.0%	34.6%	16.8%	29.9%	27.5%	29.9%	36.9%	32.4%
Arizona	50.9%	49.9%	51.8%	29.1%	67.4%	24.1%	50.8%	56.4%	49.7%
Arkansas	44.3%	40.7%	47.3%	41.6%	50.5%	24.9%	38.4%	51.4%	29.3%
California	66.6%	63.9%	68.6%	62.9%	78.5%	47.6%	58.8%	70.9%	71.5%
Colorado	56.4%	53.8%	59.1%	41.8%	61.4%	36.1%	45.6%	59.8%	74.1%
Connecticut	68.3%	65.7%	70.5%	50.8%	78.2%	51.0%	59.3%	71.0%	73.3%
Delaware	66.6%	61.2%	70.7%	50.0%	71.2%	41.1%	62.0%	77.2%	53.6%
District of Columbia	76.0%	74.2%	77.1%	71.0%	85.0%	59.4%	75.5%	83.4%	79.8%
Florida	58.8%	53.9%	63.1%	47.6%	71.4%	43.3%	61.0%	63.4%	61.0%

Part 5

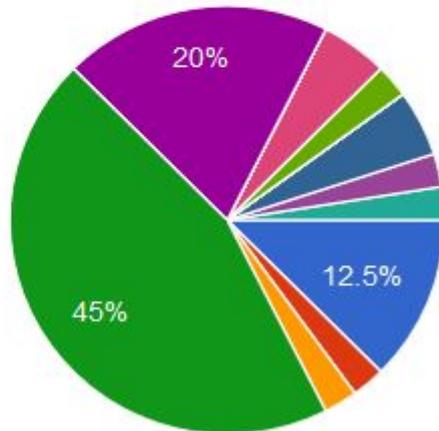
How readers use the States data

1. College presidents bring the Almanac to state legislators to show how their state is falling behind others.
2. College officials compare their states to other states.
3. Professors see how pay in their state compares with other states and perhaps think about moving to other states, or staying where they are and asking for higher pay.
4. College officials and student reporters see how they are doing on various measures like diversity and graduation rates. They may cite these figures as they seek grants to improve on those measures.
5. College officials worry about an anticipated decline in enrollment and make predictions and develop strategies. Could they be keeping more students in state? Could they be serving poorer students better?
6. College consultants figure out which colleges might be in trouble and offer their services to help.

Data from a 2018 Almanac survey suggest who our readers are.

25. What best describes your current role?

40 responses



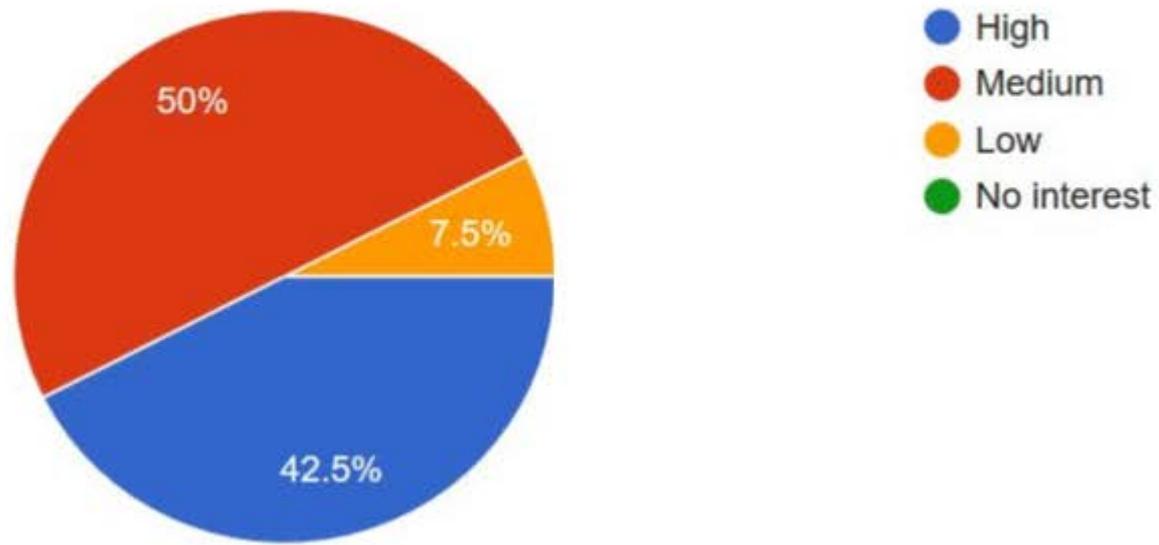
- Chief executive of a college or colle...
- Chief academic officer
- Student-affairs official
- Other college administrator
- Faculty member or instructional-staf...
- College employee not involved in in...
- Retired from higher education
- Higher-education consultant or recr...
- College student
- Work outside higher education
- Researcher, NH Department of Education
- communications director

Survey takers valued the States data.

Interest in particular areas of data

22. Data at the individual-state level on demographics, faculty pay, enrollment, diversity, student aid, and research spending

40 responses



An assistant vice president
for institutional research at Stony Brook University
is one loyal reader.



Braden Hosch @BradenHosch · 24 Aug 2018



When you keep 15 consecutive years of the @chronicle of higher education almanac in your office you know you love #HigherEd #Data (though I do miss the narrative state context descriptions ...). [chronicle.com/specialreport/...](https://www.chronicle.com/specialreport/...) #HiEdData



A senior policy analyst from the Education Trust used our data to look at racial inequities in graduation rates by state.



Katie Berger @katielberger · 24 Aug 2018

THREAD: I thought I was beyond being shocked by racial inequity data but looking at the @chronicle almanac some of these grad rate gaps are truly atrocious. In AZ over half of white BA-seeking students graduate within 6 years compared to fewer than 1/5 of their black peers 1/

1 5 8



Katie Berger @katielberger · 24 Aug 2018

14 states have 6yr grad rates for black students under 1/3. There are only 8 states where black students at four year institutions have better than even odds of earning a BA within six years, and in all but 2 of those cases the black-white gap is over 10 pp. 2/

1 1



Katie Berger @katielberger · 24 Aug 2018

The 2 states with comparatively high black grad rates and small gaps? Maine and New Hampshire. The almanac also helpfully shows the share of enrollment by race. In ME 3.5% of students are black, in NH it's higher than I would have thought at 9.3%. 3/

1 1



Katie Berger @katielberger · 24 Aug 2018

Grad rates in NH are high across the board, about 2/3 for white, black, and Hispanic students. Makes me wonder if there's something special going on in the Granite State, or if there's a quirk in the data I'm missing. 4/

1 1



Katie Berger @katielberger · 24 Aug 2018

Anyway back to bummers-- While AZ stands out as worst in class for low black grad rate+large B-W gap, the black grad rates in Arkansas, Kansas, and West Virginia are still insanely low and under half the white grad rates (~25% vs ~50%). 5/

1 1

Her thread continues, calling out states that have huge graduation-rate gaps for black students.



Katie Berger @katielberger · 24 Aug 2018

Some states that are doing comparatively well by white students also have huge gaps for black students-- for ex Michigan (35 v 66), Illinois (35 vs 68), and Delaware (40 vs 78). Note black students also make up large shares of the enrollment in these states (12%, 12% and 20%). 6/



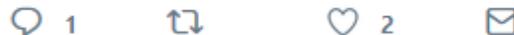
Katie Berger @katielberger · 24 Aug 2018

For Hispanic students the story is better but still distressing. ~1/3 of Hispanic students graduate in Alaska, Montana, and North Dakota. Alaska has low grad rates for everyone but MT and ND graduate about half of white students. 7/



Katie Berger @katielberger · 24 Aug 2018

I know you're not supposed to quote more than three stats to make a point and people's eyes glaze over if you use too much data and lots of people will probably give up before getting to the end of this tread, but for those who stuck around and want to keep indulging me... 8/



Katie Berger @katielberger · 24 Aug 2018

I'm going to try and wrap my head around these gaps. If you're like me (white, middle class, college educated parents) you can think about your friends and HS classmates. Some probably went military, some dropped out of college, some took longer to finish, maybe due to kids. 9/



Katie Berger @katielberger · 24 Aug 2018

But at the end of the day the system worked, for the most part, for you and most of your peers. These data are a stark reminder that people of color generally have less than even odds--and often quite worse odds--for getting the same outcome. 10/



“For people of color in America,” she writes, “the system is broken more often than it works. Grad rates are one small part of that.”



Katie Berger @katielberger · 24 Aug 2018

It's easy to assume that things are working well when most folks you know did okay (or well, or really well, if you grew up fancier than I did). It's easy to blame the individuals who didn't succeed rather than the systems since hey, it works out for "most" people. 11/



1



2



Katie Berger @katielberger · 24 Aug 2018

But that simply isn't the case for large segments of the population, and the distribution of opportunity is deeply inequitable. Hell, it's fundamentally unjust. And it's not an accident, it's designed to be that way. 12/



1



2



Katie Berger @katielberger · 24 Aug 2018

As long as the system works (or appears to work) for most white people, the powers that be won't feel the pressure to fix it for the folks that are left behind. That's because the people in power are white, upper or middle class, with college educated parents. 13/



1



3



Katie Berger @katielberger · 24 Aug 2018

Folks like them are doing fine so they can believe that all's right in the world, or at least not explicitly wrong. But if you give a damn about justice you've got to look beyond your own experience, including digging through long boring data sets. 14/



1



3



Katie Berger @katielberger · 24 Aug 2018

For people of color in America, the system is broken more often than it works. Grad rates are one small part of that, and I don't pretend to know even a fraction of what I should about it, but I'm gonna keep pointing it out when I see it. 15/



1



2



Her analysis ended with a link to our Compare the States table.



Katie Berger

@katielberger

Follow



Oh and you can find all the data in the Chronicle's almanac here [chronicle.com/interactives/a...](https://www.chronicle.com/interactives/a...) Hopefully I tricked you into reading this far to find the link.
16/16

STATE	POPULATION	MEDIAN AGE	BACHELOR'S DEGREE	BACHELOR'S DEGREE	MEDIAN'S DEGREE	HIGHER DEGREE	PHD DEGREE	HOME			
IA	4,863,300	39	8.2%	15.4%	6.9%	1.0%	1.0%	5.1%	17.1%	\$25,810	
IL	741,894	33.5	8.0%	19.0%	7.0%	1.2%	1.8%	16.0%	9.9%	\$34,187	
IN	6,931,071	37.5	8.4%	18.1%	7.8%	1.2%	1.8%	27.1%	16.4%	\$27,997	
KS	2,968,248	38	6.7%	14.2%	5.9%	0.9%	1.3%	7.3%	17.2%	\$34,264	
KY	39,250,017	36.4	7.7%	20.0%	8.4%	1.0%	2.4%	44.0%	14.3%	\$33,389	
LA	5,540,545	36.7	8.0%	24.9%	10.0%	1.0%	2.3%	17.1%	11.0%	\$34,042	
MD	3,576,452	40.9	7.0%	21.9%	12.1%	1.0%	3.0%	22.7%	9.8%	\$41,08	
ME	652,065	40.8	7.9%	18.4%	8.9%	1.8%	1.9%	12.9%	11.7%	\$31,	
MI	952,065	40.8	7.9%	18.4%	8.9%	1.8%	1.9%	17.1%	18.0%	\$3,	
DC	681,170	33.0	2.0%	24.0%	20.0%	4.0%	8.0%	28.8%	15.7%		
MO	38,812,439	42.1	8.7%	19.2%	7.2%	1.1%	3.1%	28.8%	16.0%		
MS	28,088,371	38.5	7.8%	18.7%	8.3%	1.0%	3.1%	28.8%	16.0%		
MT	1,080,000	38.0	10.0%	21.4%	10.0%	1.0%	1.0%	10.0%	10.0%		
NE	1,980,000	38.0	10.0%	21.4%	10.0%	1.0%	1.0%	10.0%	10.0%		

Compare the States
Sort data on more than 80 measures to see how your state is doing in comparison with others.
[chronicle.com](https://www.chronicle.com)

12:51 PM - 24 Aug 2018

3 Retweets 6 Likes

More opportunities for comparisons

DATA



Compare the States

AUGUST 19, 2018

Explore the nine sortable tables below to discover how the states and the District of Columbia compare with each other and with the nation over all in terms of their demographic challenges, the educational level of their residents, faculty pay, college enrollment, diversity, graduation rates, tuition costs, and much more. Return to the main Almanac page.

DEMOGRAPHICS				FACULTY PAY: PUBLIC					FACULTY PAY: PRIVATE			
ENROLLMENT BY SECTOR				ENROLLMENT BY GENDER, RACE, ETHNICITY					GRADUATION RATES			
STUDENTS				FINANCE					INSTITUTIONS			
STATE	TOTAL	WOMEN	MINORITY	AMERICAN INDIAN	ASIAN	BLACK	HISPANIC	PACIFIC ISLANDER	WHITE	2 OR MORE RACES	NONRESIDENT ALIEN	
Alabama	304,498	56.9%	33.6%	0.6%	1.9%	25.5%	3.3%	0.1%	60.3%	2.2%	3.0%	
Alaska	28,446	59.3%	33.2%	9.2%	5.4%	2.9%	6.9%	0.7%	52.4%	7.9%	1.9%	
Arizona	608,084	60.4%	37.8%	2.1%	3.2%	8.7%	20.6%	0.4%	41.2%	2.8%	3.3%	
Arkansas	167,320	57.9%	27.7%	0.8%	1.7%	15.9%	6.0%	0.1%	67.6%	3.2%	3.8%	
California	2,702,996	54.8%	63.2%	0.4%	14.2%	6.2%	37.7%	0.4%	27.7%	4.2%	5.2%	
Colorado	356,533	55.4%	30.7%	0.9%	3.4%	6.6%	15.5%	0.3%	59.7%	4.0%	3.4%	
Connecticut	198,011	57.1%	33.8%	0.2%	5.0%	11.9%	14.0%	0.1%	54.8%	2.6%	6.0%	
Delaware	61,139	59.9%	33.4%	0.5%	3.4%	20.5%	6.5%	0.1%	52.9%	2.4%	9.1%	
District of Columbia	93,040	59.6%	40.9%	0.2%	6.3%	23.7%	7.9%	0.1%	41.4%	2.7%	11.3%	
Florida	1,075,496	57.9%	48.9%	0.3%	3.3%	17.2%	25.1%	0.2%	42.6%	2.8%	4.2%	
Georgia	532,907	59.1%	45.9%	0.3%	5.0%	30.8%	6.9%	0.1%	47.5%	2.7%	4.1%	

STATES

For Needy Students, Geography Can Be Destiny

By PETER OLSEN-PHILLIPS

Two Southeastern states — each with about a quarter of its children living in poverty and with more than a third of its population underrepresented minorities — take contrasting approaches to making a four-year public higher education affordable to their residents.

Florida keeps tuition relatively low and spends around one and a half times as much on merit aid as it does on need-based aid. Tuition and fees at public four-year institutions in South Carolina are more than two and a half times as high as in the Sunshine State, and it spends only a fifth as much on need-based aid as on merit aid. (See data on Pages 79 and 98.)

The Palmetto State, in fact, is among the most generous when it comes to merit aid, providing more than seven times the national average per student at its four-year and two-year public institutions. Although it has only about a quarter of the population of Florida, the total amount that South Carolina gives out in non-need-based grants exceeds Florida's.

The shortage of need-based aid is endemic to Southern colleges and puts them on a "collusion course with their own demographics," says Patrick Callan, president of the Higher Education Policy Institute. "If you want to have the kind of work force that is going to be competitive in the 21st century," he says, "we can't mechanically do it if we don't serve groups that we haven't served so well before — low-income and some ethnic minorities."

While neither state has solved the problem of access, Florida ranks fourth-best in terms of the percentage of family income required to pay to attend a four-year public residential institution, and 11th-best in the percentage needed to pay to attend a research institution, according to the 2016 "College Affordability Diagnosis." On those same two measures, South Carolina ranks 43rd and 46th, says the report, which was published by the Institute for Research on Higher Education, at the University of Pennsylvania. Higher education in South Carolina is "extremely costly ... for the state's poorest," the report says.

The high cost in South Carolina and elsewhere may discourage students from ever entering college. It also makes those who do start less likely to persist, says Joni E. Finney, director of the Pates Institute. "It puts you at greater risk of dropping out, because you may have to take some time out to work or you're going to work too many hours. Or you may fail because you're not putting in enough time on your academic studies because you're trying to work hard enough to minimize your borrowing."

WITH its generous merit aid, South Carolina places a high premium on recruiting the best students to its colleges and universities. That aid is available to qualified students no matter what their income.

A key part of ensuring that low-income students can degrees at the University of South Carolina is to make sure they meet the academic benchmarks required to continue receiving merit aid. The university's Student Success Center reaches out to students, with faculty members' help, to make sure their GPAs stay high enough.

In Catawback Community College for those with high financial need, which serves 600 to 700 students, boasts the same retention and attainment rates as those of the rest of the student body, says Scott Verayl, associate vice president for enrollment management.

"We've shown you can close that achievement gap with the appropriate amount of resources and support," he says. To pay for those resources and make up for low state appropriations, the university has enrolled more out-of-state students, who pay higher tuition. While the university has gotten some flak for this, "if we take more out-of-state students, that means we can also accommodate more in-state students," Mr. Verayl says. Nevertheless, it will raise tuition for state residents by 3.46 percent in the 2017-18 academic year.



Relatively moderate tuition and a center devoted to academic retention help Florida State U. students stay on the path toward graduation.

Sen. C. Bradley Hutto, a Democrat, says the state's emphasis on increasing scholarship funding rather than direct appropriations for higher education has given institutions an incentive to continue raising tuition to plug holes in their budgets and maximize the scholarship dollars they receive from students.

"It's went through a cycle, and the next thing you know, South Carolina has got the top tuition rates in the Southeast," says Senator Hutto, who serves on the Education Committee. "What has happened now is, given the average household income and the earning ability of a lot of folks in South Carolina, we're sort of priced college out of their range."

LOW income states, Florida endured cuts in state higher-education spending around the time of the recession that began in 2007. For things are looking up. State lawmakers this year voted to increase funds for both merit and need-based aid and for university operations.

John E. Thrasher, president of Florida State University and a former state legislator, says he is pleased with lawmakers' attention to the state-university system. Over the past few years, Florida State has avoided raising tuition and kept alive several efforts to help low-income students by using other state funds, like awards distributed for "peer-institution" institutions. That money helped pay for services like the university's Center for Academic Retention and Enhancement, which offers programs for financially disadvantaged first-generation students.

Florida isn't a power child for higher-education access — it ranked 30th in the "Affordability Diagnosis" report, compared with 44th for South Carolina — but the state has managed to rein in costs at its four-year institutions in recent years. Tuition there has remained almost flat since 2012, after several years of sharp increases.

"It became a political liability," says Terry Golden, policy director at the Florida Policy Institute and a former chief policy analyst for education in the governor's office. Years of rising tuition had destabilized the state's prepaid-college-savings program and prompted the state's scholarship program, which prompted state policy makers to take a more active role in managing tuition, he says.

Unlike in South Carolina, where independent governing boards control tuition at individual universities, the Legislature sets tuition in Florida. Such central oversight may put a damper on precipitous tuition increases. "The more institutions control it, the more it tends to become the average of first resort when budgets are cut," says Mr. Callan, who was a lead researcher in the "Affordability Diagnosis" study. "The state sometimes puts a brake on that."

"Like most things in America," he says, "it works better when there are checks and balances." ■

THE DATA

United States	73	Missouri	89
Alabama	34	Missouri	89
Alaska	34	Nebraska	90
Arizona	75	Nevada	95
Arkansas	20	New Hampshire	92
California	26	New Jersey	92
Colorado	77	New Mexico	93
Connecticut	28	New York	93
Delaware	78	North Carolina	94
District of Columbia	79	North Dakota	95
Florida	79	Ohio	95
Georgia	80	Oklahoma	96
Idaho	80	Oregon	96
Illinois	81	Pennsylvania	97
Indiana	81	Rhode Island	97
Iowa	82	South Carolina	98
Kentucky	82	South Dakota	98
Louisiana	83	Tennessee	98
Maine	83	Texas	100
Maryland	84	Utah	100
Massachusetts	85	West Virginia	102
Michigan	85	Wisconsin	102
Minnesota	86	Wyoming	104
Mississippi	86		

Generating articles from States data

In 2017, our reporter, Peter Olsen-Phillips looked at two states with poverty rates of around 16 percent, Florida and South Carolina, and how they approach access. Florida keeps tuition relatively low and pays out a higher proportion of need-based aid to merit aid than South Carolina does.

In 2018, we investigated two data points, on student migration to and from New Jersey.

NEW JERSEY

DEMOGRAPHICS

Population: 8,944,469 (Rank: 11)

Age distribution

Up to 4	5.8%
5 to 14	12.5%
15 to 19	6.4%
20 to 24	6.4%
25 to 44	25.8%
45 to 64	27.9%
65 and older	15.3%

Racial and ethnic distribution

American Indian	0.1%
Asian	9.5%
Black	13.4%
Pacific Islander	0.0%
White	68.1%
2 or more races	2.7%
Hispanic	20.0%
Other	6.1%

STUDENTS

Test scores: Students averaged 23.9 on the ACT, which was taken by an estimated 34% of New Jersey's high-school seniors. Students averaged 1056 on the SAT, which was taken by an estimated 70% of New Jersey's high-school seniors.

Residence of new students: In the fall of 2016, state residents made up 93% of all freshmen enrolled in New Jersey who had graduated from high school in the previous year, 57% of all New Jersey residents who were freshmen attended college in-state.

Enrollment

Level:

Undergraduate	357,452
Graduate	

That examination resulted in this article that opened the States section in 2018.

The States

Robert Heinrich, chief enrollment-management officer at Stockton U., hopes the ocean views on its new campus, in Atlantic City, will attract out-of-state students.

New Jersey to Its Students: Please Don't Go

By PETER MONAGHAN

NEW JERSEY loses so many of its college-bound students to other states that its leaders are anxious to figure out the best ways to reverse that flow.

Stockton University, which it is fair to say is not particularly well known outside New Jersey, is using advertising slogans like "Beachfront Living and Learning" to promote itself.

The university already has a well-established campus within the Pinelands National Reserve. This month it is opening a second, surfside precinct 15 miles southeast, in Atlantic City.

The new campus's residence hall boasts ocean views. As Robert Heinrich, Stockton's chief enrollment-management officer, notes, "Not many institutions can promote having an ocean."

Enrollment, he says, is growing. In the fall of 2017, the university had 1,569 freshmen, up 32 percent from the previous year. Completed applications for the fall of 2018 are up 18 percent over last year, he says. Officials have their eyes set on an overall enrollment of 10,000 by 2021, more than 1,000 from the 2016 level.

If Stockton and the state's other colleges could attract many more students from New Jersey while also enrolling

students from elsewhere, maybe the state could escape its unenviable distinction: It has the greatest net loss of first-time college students of any state.

In the fall of 2016, New Jersey saw 32,025 recent high-school graduates leave the state for college, while enrolling only 3,493 out-of-staters: a mere 7.4 percent of its new first-time freshmen. New loss: 28,532.

Forty-three percent of first-time degree or certificate seekers who graduated from high school in the previous 12 months left New Jersey. Only the District of Columbia, Vermont, New Hampshire, and Connecticut lost greater percentages of their new freshmen (see data for individual states on Pages 82 to 112).

"At Stockton, we've actually made curbing out-migration one of our strategic priorities," Heinrich says. He has also just added a recruiter for out-of-state enrollments. This fall's figure for out-of-staters is projected to be more than four times what it was in 2016 — but still only 52 students.

OUT-MIGRATION, says the state's new secretary of higher education, Zakia Smith-Elis, "is something that comes up in almost every conversation that I have about where higher education in New Jersey is going —



with the governor, legislators, college presidents."

Thomas H. Keen, Republican minority leader in the state's Senate, wants the state to do an inquiry into the exodus. In June the Senate unanimously approved a bill he co-sponsored with across-the-aisle colleagues. The bill, S518, which is awaiting consideration in the General Assembly, would direct Ellis's office to conduct a study of causes and possible remedies.

State higher-education leaders like Barbara A. Lee, senior vice president for academic affairs at Rutgers University, can already identify many of the causes. They

begin with geography. The state is population-rich but acreage-poor. "If New Jersey students want to be at a college even an hour or two away from home, most of those are not in New Jersey," she says.

Being educated in the state's well-regarded public schools helps many graduates get accepted at selective institutions elsewhere, as does the Garden State's relative affluence. Well-off parents tend to want their high-achieving children to attend elite colleges, and New Jersey does not have many of those. Princeton University is one of the few with any significant national and international draw.

Of the 3,493 first-time students from out of state who enrolled in New Jersey colleges in 2016, 905 went to Princeton. That year, more than 950 first-time New Jersey freshmen ventured to the nearby University of Delaware, and nearly 1,000 enrolled at Pennsylvania State University at University Park, about 200 miles away.

Geography, schooling, and affluence are well-known generators of New Jersey's out-migration. Is a study worth the cost, then? Didn't Bruce Springsteen explain young people's urge to leave the state in "Born to Run," his 1975 anthem of Jersey Shore anomie?

NO ONE is apparently willing to let the Bard of Asbury Park have the last word on the matter.

"Data is always a good thing — that's number one," says Keen. "Number two, we need to get beyond the anecdotes." He wants more details of the academic and socioeconomic characteristics of leavers, and how the out-of-state institutions they choose compare with New Jersey's own.

Secretary Ellis agrees that those nuances could be revealing. "Students who have the ability to leave may look different from students who are place-bound," she says. Keen suspects that many students don't realize they could stay at home and pay less for just as good an education, even taking into account out-of-state college's financial enticements.

"Do you have concerns that guidance counselors don't have the most up-to-date information about what New Jersey's colleges are offering," he asks. He believes that many parents recall struggling to get the courses they needed at state colleges, but he insists that's different now.

State leaders wince at the costs of out-migration. The investment in elementary and secondary education, lost for each child who doesn't return, capable citizens and future tax revenues, gone. Best-qualified leavers unreplaced by out-of-state peers — that's a drain of millennial brain power.

But competition for the state's prospective college students is fierce.

At far-flung institutions in Florida, Pennsylvania, and out West that sign up large numbers of Jerseyites, some admissions counselors appear uneasy talking about how they conduct their work.

Others, not at all. New Jersey is definitely one of those areas that we spend a tremendous amount of time and resources recruiting from," says Jeff Schifflman, director of admissions at Tulane University. Although far away, in New Orleans, Tulane in 2016 found 131 of its freshman students — 7.6 percent of its entering class — in New Jersey. Some years, he says, the number approaches 200.

Tulane's pitch is, if students have grown up in an Eastern city, New Orleans will be both familiar and refreshingly different. And if they're Northeast Corridor suburbanites? "This is their chance to dig their teeth in and live in a big city, which they've been craving for a long time," he says.

Temple University, in Philadelphia, assigns 2.5 admissions officers to New Jersey alone. In 2016, its first-time freshmen included 495 Jerseyites — 10.6 percent of the total.

Admissions officials often seem to note that what really brings students to their campuses is not the big-city living, the beach, or a "party school" reputation, but the academic offerings.

But sometimes, rarely, it is the sun?

Yes, and no, says Kasey Urquidez, dean of undergraduate admissions at the University of Arizona. In New Jersey first-time enrollees in 2016 numbered only 101, in a freshman class that exceeded 7,000; but those 101 keep one recruiter busy full time in New Jersey.

"Ours is a very traditional-looking campus," Urquidez says, in a college town with big-time sports and red-brick buildings, and sun, lots of sun. "So if we can get them on campus, that's a huge draw" — especially if they visit during East Coast winters. All that, and Arizona's academic offerings, of course. Rutgers's Lee says that competing with patches like these is no easy task for New Jersey, with its decades of financial crises and the competing needs that hobble virtually all the states, like schools, hospitals, and prisons.

Do she and fellow campus officials have remedies for Senator Keen and his colleagues, study or no study?

She laughs but says, "Well, yes, one thing that they might think about is increasing capacity at our state college and university systems." At Monmouth State University and several other campuses, Stockton among them, enrollments have boomed.

But, again, she says, "we appreciate the pressures the state is facing."

UNITED STATES

DEMOGRAPHICS

Population: 323,127,515

Age distribution

Up to 4	6.1%
5 to 14	12.7%
15 to 19	6.7%
20 to 24	6.9%
25 to 34	12.7%
35 to 44	12.7%
45 to 64	26.9%
65 and older	15.2%

Racial and ethnic distribution

American Indian	0.8%
Asian	5.4%
Black	12.7%
Pacific Islander	0.2%
White	72.6%
2 or more races	3.7%
Hispanic	17.8%
Other	5.3%

Educational attainment of adults (highest level)

8th grade or less	5.4%
No high school diploma	7.2%
High school diploma	27.2%
Some college, no degree	20.6%
Associate degree	8.4%
Bachelor's degree	19.3%
Master's degree	8.3%
Doctoral degree	1.4%
Professional degree	2.1%

Proportion who speak a language other than English at home: 21.6%

Per capita income: \$31,128

Poverty rate: 14.0%

New high-school graduates

Estimated for 2018-19	7,485,111
Projected change from 2018-19 to 2028-29	-5.4%

High-school dropout rate: 4.1%

18- to 24-year-olds enrolled in college: 42.6%

FACILITY PAY

Average pay of full-time professor:

Public	\$128,202
Associate professor	\$89,125
Assistant professor	\$71,154
All	\$97,502

Public doctoral institutions:

Professor	\$128,202
Associate professor	\$89,125
Assistant professor	\$71,154
All	\$97,502

Public master's:

Professor	\$92,273
Associate professor	\$74,355
Assistant professor	\$64,662
All	\$77,087

Private nonprofit doctoral:

Professor	\$164,313
Associate professor	\$101,451
Assistant professor	\$84,322
All	\$112,419

Private nonprofit master's:

Professor	\$90,999
Associate professor	\$73,250
Assistant professor	\$62,088
All	\$69,449

Other 4-year institutions:

Public	\$73,591
Private nonprofit	\$71,248

2-year colleges:

Public	\$62,404
Private nonprofit	\$44,669

STUDENTS

Test scores: Students averaged 21.0 on the ACT and 1060 on the SAT.

Residence of new students:

80% of all freshmen in the fall of 2016 who had graduated from high school in the previous year attended colleges in their home states.

Enrollment

Undergraduate	16,883,835
Graduate and professional	2,984,969

Institution type:

4-year public	8,714,558
4-year private nonprofit	4,048,078
4-year for-profit	985,477
2-year public	5,841,522
2-year private nonprofit	30,557
2-year for-profit	196,612
Total	19,868,804

Share of enrollment

Public institutions	73.4%
4-year institutions	69.1%
2-year	30.7%
Full-time	64.1%

Degrees awarded

Associate	1,008,247
Bachelor's	1,921,390
Master's	789,355
Doctorate	178,112

DIVERSITY

Enrollment by race, ethnicity and citizenship status

American Indian	135,890
Asian	1,198,781
Black	2,438,708
Pacific Islander	50,129
Hispanic	3,274,087
White	10,157,299
2 or more races	616,243
Race unknown	980,094

Nonresident aliens

996,943	40.1%
Total	19,868,804

Share of enrollment

White	64.3%
2 or more races	59.7%
Race unknown	47.7%

FINANCE

Average tuition and fees

4-year public institutions	\$8,245
4-year private nonprofit	\$12,603
2-year public	\$1,316

Total state funds for higher-education operating expenses: \$88,702,029,052

One-year change: 1.6%

Total state spending on student aid

Need-based grants	\$8,162,039,981
Non-need-based grants	\$2,575,340,767

Nonprogram aid

\$1,761,878,177	1.7%
Total	\$12,501,258,925

Total spending by colleges on research and development: \$71,683,929,000

One-year change: 4.8%

INSTITUTIONS

Number

4-year public	737
4-year private nonprofit	1,331
4-year for-profit	514
2-year public	886
Nonprofit	2,648
Institution type	25,095
Other	23,131
Total	4,359

3 largest by enrollment

U of Phoenix-Arizona	131,629
Western Governors U.	84,289
ivy Tech Community College of Indiana	78,910

Share of specific research field

Engineering	15.9%
Environmental sciences	4.3%
Life sciences	56.9%
Math and computer sciences	3.8%
Physical sciences	6.8%

Part 6

What's ahead for the States section?

1. We will continue to be responsive to reader interest.
2. We will always seek newer and more interesting data, keeping our eye, especially, on outcomes data that may become available.
3. We will introduce color in print. This will allow us to have more charts in the first sections of the issue.
4. We will always keep in mind our goal of shedding light on the higher-education picture in each state and helping college officials plan for the future.