

APPENDIX

RETURN ON INVESTMENT

The percentage of graduates likely to cross the Positive ROI threshold in each state is calculated by comparing earning premiums in the decade after graduation with the state resident cost of completing a degree, using the assumption that subsidized student loans are the exclusive approach to paying those costs. A positive ROI indicates that a graduate earns wages that are higher than wages earned by individuals of the same age who do not have a post-high school degree and that this cumulative earnings premium over ten years is greater than the total investment in education after high school.

Approach

The measure was calculated using the College Scorecard institutional dataset (accessed spring 2025) and earnings data from the American Community Survey 2019-2023.¹ It is important to note that by analyzing earnings for degree holders in a state the estimate does not precisely analyze the earnings of graduates who completed their degree from a public institution in that particular state, since graduates may move between states. This is likely more influential for small states such as Rhode Island, Delaware, or Washington, D.C., than for large states such as Texas or California. However, the advantage to using the individual earnings data from the ACS is that they allow us to look at the full distribution of outcomes for degree holders rather than simply median earnings. The estimate can therefore most closely be characterized as the likelihood of achieving positive ROI if a graduate were to remain in state.

As this is a simplified model, the various assumptions will influence the estimate of positive ROI, some in a negative direction and others in a positive direction. The estimate assumes that a student finances the entire net cost via loans, rather than student and family resources, and it uses the most recent data available for net price rather than using net price for prior years for students who graduated earlier. These assumptions would both push the estimated percentage of students experiencing positive ROI down. On the other hand, the model assumes on-time graduation, all loans at the federally subsidized rate, and uses pre-tax income rather than income after taxes to calculate ability to pay back. These latter three assumptions would boost the estimated percentage of students experiencing positive ROI.

¹ ACS data were accessed via IPUMS: Steven Ruggles, Sarah Flood, Matthew Sobek, Daniel Backman, Annie Chen, Grace Cooper, Stephanie Richards, Renae Rogers, and Megan Schouweiler. *IPUMS USA: Version 14.0* [dataset]. Minneapolis, MN: IPUMS, 2025. <https://doi.org/10.18128/D010.V14.0>

Methodology

The percentage of graduates experiencing positive return on investment is based on the following calculation:

Positive ROI = Earnings premium over 10 years > Total student investment, paid off over 10 years

Separate estimates are calculated for bachelor's degree holders and associate degree holders as well as an overall state estimate that is a weighted average of the two based on their relative enrollment shares in the state.

Earnings premium over 10 years =
(Wage of individual bachelor's or associate degree holder ages 25-34) – (Median wage of high school graduates in the state of matched age)

Total student investment =
(Annual net price) × (Years for on-time completion) × (1.057% loan fees at 5.5% simple daily interest, paid over 10 years)²

Annual net price = tuition + books + fees + living costs – grant and scholarship aid

Since the ACS data are not longitudinal, synthetic cohorts are used to estimate the earnings trajectories of each individual based only on the single year for which their income is recorded. Real wage growth per year in each state is estimated based on the differences between median income for respondents of each age with the same education level. On top of real wage growth, 3 percent inflation per year is added to the estimate.

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² This approach follows that of the Postsecondary Value Commission with three exceptions: 1) Net price as reported to IPEDS/College Scorecard is used rather than recalculating costs for students living at home as the PVC does. 2) This estimate assumes four years for a bachelor's degree rather than allowing time to completion to vary by institution. 3) Earnings estimates are for completers only, rather than all enrollees, as in the PVC. These choices were made to simplify the methodology and allow the metric to be easier for states to calculate for themselves. The first two assumptions result in lower estimated total student investment, while the last results in higher estimated earnings.

State-by-State Results

Table 1: Positive ROI by State

State	ROI Overall	Sample Size Overall	Margin of Error Overall	ROI Bachelor's	Sample Size Bachelor's	Margin of Error Bachelor's	ROI Associate	Sample Size Associate	Margin of Error Associate
USA	70%	242,550	0%	73%	193,478	0%	60%	49,072	0%
Alabama	67%	2,757	2%	67%	1,936	2%	67%	821	3%
Alaska	77%	375	4%	77%	280	5%	76%	95	9%
Arizona	72%	4,562	1%	74%	3,495	1%	65%	1,067	3%
Arkansas	68%	1,644	2%	71%	1,171	3%	60%	473	4%
California	75%	29,915	0%	78%	25,216	1%	58%	4,699	1%
Colorado	65%	6,045	1%	68%	5,182	1%	49%	863	3%
Connecticut	69%	2,604	2%	69%	2,255	2%	69%	349	5%
Delaware	69%	574	4%	70%	443	4%	67%	131	8%
Washington, D.C.	82%	1,431	2%	82%	1,399	2%			
Florida	69%	12,755	1%	74%	9,515	1%	57%	3,240	2%
Georgia	70%	7,205	1%	72%	5,901	1%	59%	1,304	3%
Hawaii	63%	938	3%	66%	680	4%	56%	258	6%
Idaho	58%	1,055	3%	61%	795	3%	50%	260	6%
Illinois	73%	11,002	1%	76%	8,831	1%	62%	2,171	2%
Indiana	66%	4,709	1%	68%	3,626	2%	62%	1,083	3%
Iowa	65%	2,746	2%	66%	1,822	2%	65%	924	3%
Kansas	70%	2,247	2%	73%	1,644	2%	61%	603	4%
Kentucky	65%	2,956	2%	68%	2,207	2%	56%	749	4%

State	ROI Overall	Sample Size Overall	Margin of Error Overall	ROI Bachelor's	Sample Size Bachelor's	Margin of Error Bachelor's	ROI Associate	Sample Size Associate	Margin of Error Associate
Louisiana	69%	2,356	2%	69%	1,799	2%	68%	557	4%
Maine	65%	785	3%	64%	597	4%	70%	188	7%
Maryland	71%	4,714	1%	73%	3,965	1%	61%	749	4%
Massachusetts	71%	7,567	1%	72%	6,949	1%	60%	618	4%
Michigan	71%	6,831	1%	73%	5,319	1%	65%	1,512	2%
Minnesota	68%	4,732	1%	70%	3,421	2%	60%	1,311	3%
Mississippi	64%	1,573	2%	66%	922	3%	62%	651	4%
Missouri	68%	4,552	1%	70%	3,479	2%	63%	1,073	3%
Montana	64%	642	4%	62%	483	4%	69%	159	7%
Nebraska	66%	1,725	2%	67%	1,224	3%	62%	501	4%
Nevada	66%	1,659	2%	65%	1,221	3%	68%	438	4%
New Hampshire	63%	1,026	3%	65%	850	3%	57%	176	7%
New Jersey	74%	7,750	1%	76%	6,733	1%	63%	1,017	3%
New Mexico	70%	899	3%	69%	587	4%	71%	312	5%
New York	76%	17,500	1%	80%	14,460	1%	59%	3,040	2%
North Carolina	69%	7,877	1%	73%	6,099	1%	58%	1,778	2%
North Dakota	53%	674	4%	59%	449	5%	41%	225	6%
Ohio	66%	8,431	1%	68%	6,690	1%	60%	1,741	2%
Oklahoma	68%	1,841	2%	67%	1,356	2%	68%	485	4%
Oregon	67%	2,854	2%	69%	2,313	2%	58%	541	4%
Pennsylvania	65%	9,840	1%	66%	7,767	1%	60%	2,073	2%
Rhode Island	59%	836	3%	61%	698	4%	54%	138	8%

State	ROI Overall	Sample Size Overall	Margin of Error Overall	ROI Bachelor's	Sample Size Bachelor's	Margin of Error Bachelor's	ROI Associate	Sample Size Associate	Margin of Error Associate
South Carolina	67%	3,387	2%	66%	2,579	2%	71%	808	3%
South Dakota	66%	778	3%	66%	477	4%	68%	301	5%
Tennessee	65%	4,834	1%	67%	3,862	1%	58%	972	3%
Texas	71%	19,312	1%	75%	15,316	1%	58%	3,996	2%
Utah	65%	2,721	2%	68%	2,151	2%	56%	570	4%
Vermont	58%	426	5%	56%	365	5%	71%	61	11%
Virginia	69%	7,117	1%	72%	5,976	1%	58%	1,141	3%
Washington	73%	6,187	1%	76%	4,953	1%	62%	1,234	3%
West Virginia	66%	849	3%	63%	607	4%	71%	242	6%
Wisconsin	68%	4,398	1%	69%	3,191	2%	66%	1,207	3%
Wyoming	57%	357	5%	59%	222	6%	53%	135	8%

Table 2: Total Cost and Income Needed for Positive ROI, Associate Degrees

State	Associate Net Price	Associate Total Cost	State High School Median	Annual Income Needed for Positive ROI
Alabama	\$5,987	\$16,511	\$34,891	\$36,542
Alaska	\$8,181	\$22,563	\$44,836	\$47,092
Arizona	\$9,227	\$25,448	\$39,000	\$41,545
Arkansas	\$9,594	\$26,461	\$35,000	\$37,646
California	\$5,838	\$16,101	\$40,000	\$41,610
Colorado	\$10,023	\$27,644	\$42,769	\$45,533
Connecticut	\$9,065	\$25,002	\$41,296	\$43,796
Delaware	\$8,028	\$22,141	\$39,000	\$41,214
Washington, D.C.			\$46,000	
Florida	\$7,109	\$19,606	\$35,403	\$37,364
Georgia	\$8,194	\$22,600	\$35,397	\$37,657
Hawaii	\$7,430	\$20,491	\$41,296	\$43,345
Idaho	\$7,488	\$20,651	\$39,000	\$41,065
Illinois	\$5,653	\$15,591	\$39,393	\$40,952
Indiana	\$6,851	\$18,896	\$38,900	\$40,790
Iowa	\$9,639	\$26,585	\$40,000	\$42,658
Kansas	\$9,579	\$26,419	\$36,576	\$39,218
Kentucky	\$5,142	\$14,182	\$36,444	\$37,862
Louisiana	\$9,044	\$24,943	\$35,100	\$37,594
Maine	\$7,661	\$21,129	\$40,000	\$42,113
Maryland	\$8,690	\$23,966	\$40,518	\$42,915

State	Associate Net Price	Associate Total Cost	State High School Median	Annual Income Needed for Positive ROI
Massachusetts	\$8,206	\$22,632	\$45,000	\$47,263
Michigan	\$5,913	\$16,307	\$37,142	\$38,773
Minnesota	\$11,946	\$32,946	\$41,296	\$44,591
Mississippi	\$5,412	\$14,927	\$32,189	\$33,682
Missouri	\$7,707	\$21,257	\$36,444	\$38,570
Montana	\$9,682	\$26,703	\$37,000	\$39,670
Nebraska	\$7,773	\$21,438	\$39,393	\$41,537
Nevada	\$7,071	\$19,501	\$39,393	\$41,343
New Hampshire	\$17,360	\$47,879	\$44,000	\$48,788
New Jersey	\$7,804	\$21,524	\$40,000	\$42,152
New Mexico	\$4,504	\$12,421	\$35,100	\$36,342
New York	\$8,124	\$22,405	\$40,000	\$42,240
North Carolina	\$5,897	\$16,263	\$35,397	\$37,023
North Dakota	\$10,757	\$29,668	\$41,650	\$44,617
Ohio	\$9,753	\$26,899	\$38,000	\$40,690
Oklahoma	\$7,861	\$21,680	\$36,000	\$38,168
Oregon	\$9,005	\$24,834	\$40,000	\$42,483
Pennsylvania	\$11,610	\$32,020	\$39,393	\$42,595
Rhode Island	\$5,460	\$15,059	\$42,000	\$43,506
South Carolina	\$5,650	\$15,584	\$35,403	\$36,961
South Dakota	\$14,598	\$40,262	\$36,000	\$40,026
Tennessee	\$6,547	\$18,057	\$36,444	\$38,250

State	Associate Net Price	Associate Total Cost	State High School Median	Annual Income Needed for Positive ROI
Texas	\$7,956	\$21,944	\$36,444	\$38,638
Utah	\$9,248	\$25,506	\$41,296	\$43,847
Vermont	\$13,428	\$37,034	\$41,650	\$45,353
Virginia	\$7,813	\$21,549	\$40,000	\$42,155
Washington	\$7,308	\$20,154	\$44,128	\$46,143
West Virginia	\$5,762	\$15,892	\$35,403	\$36,992
Wisconsin	\$10,396	\$28,671	\$40,000	\$42,867
Wyoming	\$7,640	\$21,071	\$44,000	\$46,107

Table 3: Total Cost and Income Needed for Positive ROI, Bachelor's Degrees

State	Bachelor's Net Price	Bachelor's Total Cost	State High School Median	Annual Income Needed for Positive ROI
Alabama	\$17,554	\$96,825	\$34,891	\$44,574
Alaska	\$10,092	\$55,669	\$44,836	\$50,403
Arizona	\$13,813	\$76,192	\$39,000	\$46,619
Arkansas	\$14,430	\$79,596	\$35,000	\$42,960
California	\$11,902	\$65,648	\$40,000	\$46,565
Colorado	\$17,716	\$97,720	\$42,769	\$52,541
Connecticut	\$17,918	\$98,832	\$41,296	\$51,179
Delaware	\$16,545	\$91,259	\$39,000	\$48,126
Washington, D.C.	\$14,144	\$78,017	\$46,000	\$53,802
Florida	\$8,615	\$47,519	\$35,403	\$40,155
Georgia	\$14,851	\$81,920	\$35,397	\$43,589
Hawaii	\$11,796	\$65,066	\$41,296	\$47,803
Idaho	\$16,230	\$89,521	\$39,000	\$47,952
Illinois	\$14,523	\$80,106	\$39,393	\$47,404
Indiana	\$13,178	\$72,689	\$38,900	\$46,169
Iowa	\$17,128	\$94,480	\$40,000	\$49,448
Kansas	\$15,817	\$87,248	\$36,576	\$45,301
Kentucky	\$12,920	\$71,264	\$36,444	\$43,570
Louisiana	\$14,397	\$79,414	\$35,100	\$43,041
Maine	\$14,781	\$81,529	\$40,000	\$48,153
Maryland	\$15,832	\$87,326	\$40,518	\$49,251

State	Bachelor's Net Price	Bachelor's Total Cost	State High School Median	Annual Income Needed for Positive ROI
Massachusetts	\$19,087	\$105,285	\$45,000	\$55,528
Michigan	\$15,705	\$86,627	\$37,142	\$45,805
Minnesota	\$16,523	\$91,137	\$41,296	\$50,410
Mississippi	\$14,413	\$79,504	\$32,189	\$40,139
Missouri	\$15,606	\$86,082	\$36,444	\$45,052
Montana	\$16,296	\$89,885	\$37,000	\$45,989
Nebraska	\$15,054	\$83,038	\$39,393	\$47,697
Nevada	\$13,126	\$72,404	\$39,393	\$46,633
New Hampshire	\$21,345	\$117,737	\$44,000	\$55,774
New Jersey	\$18,553	\$102,336	\$40,000	\$50,234
New Mexico	\$10,721	\$59,137	\$35,100	\$41,014
New York	\$11,752	\$64,826	\$40,000	\$46,483
North Carolina	\$13,996	\$77,199	\$35,397	\$43,117
North Dakota	\$16,023	\$88,383	\$41,650	\$50,488
Ohio	\$18,476	\$101,910	\$38,000	\$48,191
Oklahoma	\$14,442	\$79,659	\$36,000	\$43,966
Oregon	\$18,389	\$101,433	\$40,000	\$50,143
Pennsylvania	\$23,002	\$126,875	\$39,393	\$52,080
Rhode Island	\$17,850	\$98,461	\$42,000	\$51,846
South Carolina	\$18,115	\$99,919	\$35,403	\$45,395
South Dakota	\$18,660	\$102,927	\$36,000	\$46,293
Tennessee	\$14,559	\$80,305	\$36,444	\$44,474

State	Bachelor's Net Price	Bachelor's Total Cost	State High School Median	Annual Income Needed for Positive ROI
Texas	\$14,861	\$81,975	\$36,444	\$44,641
Utah	\$11,953	\$65,934	\$41,296	\$47,889
Vermont	\$18,419	\$101,597	\$41,650	\$51,810
Virginia	\$19,012	\$104,870	\$40,000	\$50,487
Washington	\$14,690	\$81,027	\$44,128	\$52,231
West Virginia	\$11,109	\$61,276	\$35,403	\$41,531
Wisconsin	\$15,372	\$84,790	\$40,000	\$48,479
Wyoming	\$11,995	\$66,164	\$44,000	\$50,616

Table 4: Positive ROI by Demographic Group

	ROI Bachelor's	Sample Size Bachelor's	Margin of Error Bachelor's	ROI Associate	Sample Size Associate	Margin of Error Associate
2+ Races Female	73%	4,380	1%	62%	1,007	3%
2+ Races Male	76%	3,947	1%	59%	983	3%
Asian Female	77%	8,779	1%	64%	863	3%
Asian Male	80%	8,767	1%	60%	1,029	3%
Black Female	69%	5,902	1%	59%	1,981	2%
Black Male	66%	4,493	1%	63%	1,567	2%
Latina Female	72%	13,500	1%	59%	4,691	1%
Latino Male	68%	11,396	1%	61%	4,699	1%
Native American/Alaska Native Female	69%	259	6%	70%	196	6%
Native American/Alaska Native Male	75%	195	6%	70%	166	7%
Other Race Female	58%	346	5%	42%	78	11%
Other Race Male	70%	415	4%	54%	101	10%
Pacific Islander/Native Hawaiian Female	81%	104	8%	40%	24	20%
Pacific Islander/Native Hawaiian Male	70%	97	9%	39%	41	15%
White Female	79%	66,332	0%	65%	14,749	1%
White Male	74%	64,566	0%	62%	16,897	1%