



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Carolinas
<b>Location:</b>	Charleston, South Carolina
<b>Date:</b>	Saturday, April 15, 2023
<b>Die Roll Result:</b>	1

### Not Ranked

Full Name	Ineligibility	Reason
University of South Carolina	3	Bridge is unsuitable for intended purpose
Clemson University	11.4	Failed lateral load test
North Carolina State University	None	
University of North Carolina at Charlotte	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of North Carolina at Charlotte	194.50	1
North Carolina State University	205.75	2
Clemson University	221.50	NR
University of South Carolina	180.00	NR

### Lightness

Full Name	Weight (lbs)	Rank
University of North Carolina at Charlotte	300.4	1
North Carolina State University	316.3	2
Clemson University	952.8	NR
University of South Carolina	80.0	NR

### Aesthetics

Full Name	Score	Rank
University of North Carolina at Charlotte	12.67	1
North Carolina State University	10.67	2
Clemson University	10.00	3
University of South Carolina	9.67	4

### Stiffness

Full Name	Agg D (in)	Rank
North Carolina State University	1.78	1
University of North Carolina at Charlotte	2.92	2
Clemson University	0.00	NR
University of South Carolina	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
North Carolina State University	\$ 55,776,860.25	1
University of North Carolina at Charlotte	\$ 100,221,668.54	2
Clemson University	\$ 98,832,487.71	NR
University of South Carolina	\$ 107,550,000.00	NR

## Economy

Full Name	Cc	Rank
University of North Carolina at Charlotte	\$ 111,625,000.00	1
North Carolina State University	\$ 114,437,500.00	2
Clemson University	\$ 118,375,000.00	NR
University of South Carolina	\$ 108,000,000.00	NR

## Efficiency

Full Name	Cs	Rank
North Carolina State University	\$ 6,793,436.25	1
University of North Carolina at Charlotte	\$ 9,755,668.54	2
Clemson University	\$ 3,823,487.71	NR
University of South Carolina	\$ 200,000.00	NR

## Overall

Full Name	Cc + Cs	Rank
North Carolina State University	\$ 121,230,936.25	1
University of North Carolina at Charlotte	\$ 121,380,668.54	2
Clemson University	\$ 122,198,487.71	NR
University of South Carolina	\$ 108,200,000.00	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Eastern Great Lakes
<b>Location:</b>	Detroit, Michigan
<b>Date:</b>	Saturday, April 1, 2023
<b>Die Roll Result:</b>	6

### Not Ranked

Full Name	Ineligibility	Reason
Ohio Northern University	4	Did not complete competition.
Ohio University	4	Did not complete competition.
University of Toledo	4	Did not complete competition.
Cleveland State University	5	Judges deem the bridge unsafe to compete for any reason
University of Akron	11.4	Failed lateral load test
Michigan Technological University	11.5	Excessive deflection/sway or loading stopped by judges
Ohio State University	11.5	Excessive deflection/sway or loading stopped by judges
University of Cincinnati	11.5	Excessive deflection/sway or loading stopped by judges
Wayne State University	11.5	Excessive deflection/sway or loading stopped by judges
Lawrence Technological University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Case Western Reserve University	None	
University of Michigan	None	
Youngstown State University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Youngstown State University	11.43	1
University of Michigan	25.05	2
Case Western Reserve University	33.17	3
Cleveland State University	9999.00	NR
Lawrence Technological University	9999.00	NR
Michigan Technological University	12.50	NR
Ohio Northern University	0.00	NR
Ohio State University	51.57	NR
Ohio University	0.00	NR
University of Akron	44.08	NR
University of Cincinnati	27.57	NR
University of Toledo	0.00	NR
Wayne State University	26.07	NR

## Lightness

Full Name	Weight (lbs)	Rank
Youngstown State University	444.2	1
University of Michigan	496.4	2
Case Western Reserve University	594.2	3
Cleveland State University	685.7	NR
Lawrence Technological University	1181.5	NR
Michigan Technological University	20.0	NR
Ohio Northern University	0.0	NR
Ohio State University	210.2	NR
Ohio University	0.0	NR
University of Akron	286.2	NR
University of Cincinnati	612.9	NR
University of Toledo	0.0	NR
Wayne State University	693.4	NR

## Aesthetics

Full Name	Score	Rank
University of Michigan	13.33	1
Michigan Technological University	12.67	2
Cleveland State University	12.00	3
Youngstown State University	11.67	4
Ohio State University	9.00	5
University of Akron	9.00	5
University of Cincinnati	8.67	7
Case Western Reserve University	8.33	8
Wayne State University	7.00	9
Lawrence Technological University	3.00	10
Ohio Northern University	2.67	11
Ohio University	2.00	12
University of Toledo	2.00	12

## Stiffness

Full Name	Agg D (in)	Rank
Youngstown State University	0.72	1
University of Michigan	0.82	2
Case Western Reserve University	3.02	3
Cleveland State University	0.00	NR
Lawrence Technological University	0.00	NR
Michigan Technological University	0.00	NR
Ohio Northern University	0.00	NR
Ohio State University	0.00	NR
Ohio University	0.00	NR
University of Akron	0.00	NR
University of Cincinnati	0.00	NR
University of Toledo	0.00	NR
Wayne State University	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
Youngstown State University	\$ 756,364.03	1
University of Michigan	\$ 1,091,726.80	2
Case Western Reserve University	\$ 13,656,199.63	3
Cleveland State University	\$ 995,512,642.46	NR
Lawrence Technological University	\$ 4,006,331,974.12	NR
Michigan Technological University	\$ 3,176,254.00	NR
Ohio Northern University	\$ -	NR
Ohio State University	\$ 13,530,851.98	NR
Ohio University	\$ -	NR
University of Akron	\$ 107,218,402.27	NR
University of Cincinnati	\$ 1,425,338.47	NR
University of Toledo	\$ -	NR
Wayne State University	\$ 660,941.29	NR

## Economy

Full Name	Cc	Rank
Youngstown State University	\$ 4,535,833.33	1
University of Michigan	\$ 9,270,000.00	2
Case Western Reserve University	\$ 16,050,000.00	3
Cleveland State University	\$ 999,900,000.00	NR
Lawrence Technological University	\$ 3,999,600,000.00	NR
Michigan Technological University	\$ 6,450,000.00	NR
Ohio Northern University	\$ 0.00	NR
Ohio State University	\$ 21,840,000.00	NR
Ohio University	\$ 0.00	NR
University of Akron	\$ 21,462,500.00	NR
University of Cincinnati	\$ 13,158,333.33	NR
University of Toledo	\$ 0.00	NR
Wayne State University	\$ 13,015,000.00	NR

## Efficiency

Full Name	Cs	Rank
Youngstown State University	\$ 3,656,364.70	1
University of Michigan	\$ 6,355,048.80	2
Case Western Reserve University	\$ 10,293,800.37	3
Cleveland State University	\$ 7,944,392.46	NR
Lawrence Technological University	\$ 6,732,981.12	NR
Michigan Technological University	\$ 50,000.00	NR
Ohio Northern University	\$ 0.00	NR
Ohio State University	\$ 790,886.98	NR
Ohio University	\$ 0.00	NR
University of Akron	\$ 962,319.63	NR
University of Cincinnati	\$ 3,385,530.13	NR
University of Toledo	\$ 0.00	NR
Wayne State University	\$ 3,180,803.29	NR

## Overall

Full Name	Cc + Cs	Rank
Youngstown State University	\$ 8,192,198.03	1
University of Michigan	\$ 15,625,048.80	2
Case Western Reserve University	\$ 26,343,800.37	3
Cleveland State University	\$ 1,007,844,392.46	NR
Lawrence Technological University	\$ 4,006,332,981.12	NR
Michigan Technological University	\$ 6,500,000.00	NR
Ohio Northern University	\$ 0.00	NR
Ohio State University	\$ 22,630,886.98	NR
Ohio University	\$ 0.00	NR
University of Akron	\$ 22,424,819.63	NR
University of Cincinnati	\$ 16,543,863.47	NR
University of Toledo	\$ 0.00	NR
Wayne State University	\$ 16,195,803.29	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Gulf Coast</b>
<b>Location:</b>	<b>Mobile, Alabama</b>
<b>Date:</b>	<b>Friday, March 10, 2023</b>
<b>Die Roll Result:</b>	<b>6</b>

### Not Ranked

Full Name	Ineligibility	Reason
University of Alabama, Huntsville	9.3	Excessive dimensional violation
Louisiana State University	11.5	Excessive deflection/sway or loading stopped by judges
Louisiana Tech University	11.5	Excessive deflection/sway or loading stopped by judges
Mississippi State University	11.5	Excessive deflection/sway or loading stopped by judges
University of Louisiana at Lafayette	11.5	Excessive deflection/sway or loading stopped by judges
University of New Orleans	None	
University of South Alabama	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of South Alabama	21.83	1
University of New Orleans	25.70	2
Louisiana State University	20.00	NR
Louisiana Tech University	29.67	NR
Mississippi State University	195.00	NR
University of Alabama, Huntsville	186.75	NR
University of Louisiana at Lafayette	199.50	NR

### Lightness

Full Name	Weight (lbs)	Rank
University of South Alabama	527.6	1
University of New Orleans	746.8	2
Louisiana State University	265.7	NR
Louisiana Tech University	248.0	NR
Mississippi State University	725.2	NR
University of Alabama, Huntsville	232.6	NR
University of Louisiana at Lafayette	470.6	NR

### Aesthetics

Full Name	Score	Rank
Louisiana Tech University	13.25	1
Mississippi State University	12.63	2
University of Alabama, Huntsville	12.13	3
University of South Alabama	11.00	4
University of Louisiana at Lafayette	10.88	5
University of New Orleans	8.50	6
Louisiana State University	6.50	7

## Stiffness

Full Name	Agg D (in)	Rank
University of New Orleans	1.91	1
University of South Alabama	2.16	2
Louisiana State University	1.77	NR
Louisiana Tech University	0.00	NR
Mississippi State University	0.00	NR
University of Alabama, Huntsville	0.00	NR
University of Louisiana at Lafayette	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
University of South Alabama	\$ 4,094,140.03	1
University of New Orleans	\$ 5,688,636.20	2
Louisiana State University	\$ 5,459,324.26	NR
Louisiana Tech University	\$ 2,505,423.12	NR
Mississippi State University	\$ 98,654,751.24	NR
University of Alabama, Huntsville	\$ 109,545,774.83	NR
University of Louisiana at Lafayette	\$ 71,165,702.37	NR

## Economy

Full Name	Cc	Rank
University of South Alabama	\$ 12,137,500.00	1
University of New Orleans	\$ 12,350,000.00	2
Louisiana State University	\$ 7,475,000.00	NR
Louisiana Tech University	\$ 14,387,500.00	NR
Mississippi State University	\$ 111,750,000.00	NR
University of Alabama, Huntsville	\$ 109,687,500.00	NR
University of Louisiana at Lafayette	\$ 112,875,000.00	NR

## Efficiency

Full Name	Cs	Rank
University of New Orleans	\$ 7,702,140.31	1
University of South Alabama	\$ 8,465,810.03	2
Louisiana State University	\$ 5,984,324.26	NR
Louisiana Tech University	\$ 1,086,076.88	NR
Mississippi State University	\$ 3,181,739.34	NR
University of Alabama, Huntsville	\$ 858,274.82	NR
University of Louisiana at Lafayette	\$ 2,596,754.37	NR

## Overall

Full Name	Cc + Cs	Rank
University of New Orleans	\$ 20,052,140.31	1
University of South Alabama	\$ 20,603,310.03	2
Louisiana State University	\$ 13,459,324.26	NR
Louisiana Tech University	\$ 15,473,576.88	NR
Mississippi State University	\$ 114,931,739.34	NR
University of Alabama, Huntsville	\$ 110,545,774.82	NR
University of Louisiana at Lafayette	\$ 115,471,754.37	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Indiana-Kentucky
<b>Location:</b>	Bowling Green, Kentucky
<b>Date:</b>	Saturday, April 15, 2023
<b>Die Roll Result:</b>	6

### Not Ranked

Full Name	Ineligibility	Reason
Purdue University, Northwest	4	Did not complete competition.
Purdue University, West Lafayette	9.3	Excessive dimensional violation
University of Louisville	11.4	Failed lateral load test
University of Notre Dame	11.5	Excessive deflection/sway or loading stopped by judges
Western Kentucky University	11.5	Excessive deflection/sway or loading stopped by judges

### Construction Speed

Full Name	Time (minutes)	Rank
Purdue University, Northwest	0.00	NR
Purdue University, West Lafayette	184.50	NR
University of Louisville	199.50	NR
University of Notre Dame	198.25	NR
Western Kentucky University	214.00	NR

### Lightness

Full Name	Weight (lbs)	Rank
Purdue University, Northwest	0.0	NR
Purdue University, West Lafayette	480.9	NR
University of Louisville	258.9	NR
University of Notre Dame	268.8	NR
Western Kentucky University	765.8	NR

### Aesthetics

Full Name	Score	Rank
University of Notre Dame	13.67	1
University of Louisville	12.50	2
Western Kentucky University	10.67	3
Purdue University, West Lafayette	5.67	4
Purdue University, Northwest	2.00	5

### Stiffness

Full Name	Agg D (in)	Rank
Purdue University, Northwest	0.00	NR
Purdue University, West Lafayette	0.00	NR
University of Louisville	0.00	NR
University of Notre Dame	5.37	NR
Western Kentucky University	4.10	NR



## Cost Estimate

Full Name	Estimate	Rank
Purdue University, Northwest	\$ 18,429,444.93	NR
Purdue University, West Lafayette	\$ 83,550,264.41	NR
University of Louisville	\$ 8,325,989.41	NR
University of Notre Dame	\$ 21,083,787.34	NR
Western Kentucky University	\$ 25,941,191.55	NR

## Economy

Full Name	Cc	Rank
Purdue University, Northwest	\$ 0.00	NR
Purdue University, West Lafayette	\$ 109,125,000.00	NR
University of Louisville	\$ 112,875,000.00	NR
University of Notre Dame	\$ 116,562,500.00	NR
Western Kentucky University	\$ 120,500,000.00	NR

## Efficiency

Full Name	Cs	Rank
Purdue University, Northwest	\$ 0.00	NR
Purdue University, West Lafayette	\$ 1,425,264.41	NR
University of Louisville	\$ 1,310,710.59	NR
University of Notre Dame	\$ 26,035,187.11	NR
Western Kentucky University	\$ 24,759,353.32	NR

## Overall

Full Name	Cc + Cs	Rank
Purdue University, Northwest	\$ 0.00	NR
Purdue University, West Lafayette	\$ 110,550,264.41	NR
University of Louisville	\$ 114,185,710.59	NR
University of Notre Dame	\$ 142,597,687.11	NR
Western Kentucky University	\$ 145,259,353.32	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Intermountain Southwest
<b>Location:</b>	Reno, Nevada
<b>Date:</b>	Friday, April 14, 2023
<b>Die Roll Result:</b>	3

### Not Ranked

Full Name	Ineligibility	Reason
Utah Valley University	3	Bridge is unsuitable for intended purpose
Arizona State University	9.3	Excessive dimensional violation
University of Nevada, Reno	11.1	Damage affecting strength or stability anytime after construction
University of Utah	11.5	Excessive deflection/sway or loading stopped by judges
Northern Arizona University	11.5	Excessive deflection/sway or loading stopped by judges
Brigham Young University	None	
Boise State University	None	
University of Arizona	None	
Utah State University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Brigham Young University	35.37	1
University of Arizona	48.12	2
Boise State University	192.50	3
Utah State University	206.25	4
University of Nevada, Reno	36.00	NR
Utah Valley University	9999.00	NR
University of Utah	57.52	NR
Northern Arizona University	340.75	NR
Arizona State University	205.25	NR

### Lightness

Full Name	Weight (lbs)	Rank
Boise State University	420.8	1
University of Arizona	592.7	2
Brigham Young University	676.5	3
Utah State University	1077.5	4
University of Nevada, Reno	40.0	NR
Utah Valley University	2742.0	NR
University of Utah	480.3	NR
Northern Arizona University	971.3	NR
Arizona State University	606.6	NR

## Aesthetics

Full Name	Score	Rank
Northern Arizona University	12.83	1
Utah Valley University	12.17	2
Boise State University	12.00	3
Brigham Young University	11.17	4
University of Arizona	10.83	5
Utah State University	9.50	6
Arizona State University	8.33	7
University of Utah	7.83	8
University of Nevada, Reno	7.17	9

## Stiffness

Full Name	Agg D (in)	Rank
Brigham Young University	1.29	1
Boise State University	1.33	2
Utah State University	1.36	3
University of Arizona	2.76	4
University of Nevada, Reno	0.00	NR
Utah Valley University	0.00	NR
University of Utah	7.31	NR
Northern Arizona University	3.25	NR
Arizona State University	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
Brigham Young University	\$ 5,795,362.49	1
University of Arizona	\$ 6,897,120.45	2
Utah State University	\$ 89,183,575.68	3
Boise State University	\$ 90,393,813.52	4
University of Nevada, Reno	\$ 101,384,818.00	NR
Utah Valley University	\$ 5,976,629,748.80	NR
University of Utah	\$ 32,732,100.14	NR
Northern Arizona University	\$ 154,805,967.37	NR
Arizona State University	\$ 91,665,354.63	NR

## Economy

Full Name	Cc	Rank
Brigham Young University	\$ 12,121,666.67	1
University of Arizona	\$ 21,782,500.00	2
Utah State University	\$ 96,562,500.00	3
Boise State University	\$ 111,125,000.00	4
University of Nevada, Reno	\$ 19,500,000.00	NR
Utah Valley University	\$ 5,999,400,000.00	NR
University of Utah	\$ 28,710,000.00	NR
Northern Arizona University	\$ 148,187,500.00	NR
Arizona State University	\$ 114,312,500.00	NR

## Efficiency

Full Name	Cs	Rank
Brigham Young University	\$ 6,027,795.83	1
Boise State University	\$ 6,876,734.52	2
Utah State University	\$ 7,921,075.68	3
University of Arizona	\$ 10,922,860.45	4
University of Nevada, Reno	\$ 100,000.00	NR
Utah Valley University	\$ 10,346,262.50	NR
University of Utah	\$ 33,022,100.14	NR
Northern Arizona University	\$ 14,703,467.37	NR
Arizona State University	\$ 4,787,776.55	NR

**Overall**

<b>Full Name</b>	<b>Cc + Cs</b>	<b>Rank</b>
Brigham Young University	\$ 18,149,462.49	1
University of Arizona	\$ 32,705,360.45	2
Utah State University	\$ 104,483,575.68	3
Boise State University	\$ 118,001,734.52	4
University of Nevada, Reno	\$ 19,600,000.00	NR
Utah Valley University	\$ 6,009,746,262.50	NR
University of Utah	\$ 61,732,100.14	NR
Northern Arizona University	\$ 162,890,967.37	NR
Arizona State University	\$ 119,100,276.55	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Metropolitan
<b>Location:</b>	Glassboro, New Jersey
<b>Date:</b>	Saturday, April 22, 2023
<b>Die Roll Result:</b>	1

### Not Ranked

Full Name	Ineligibility	Reason
New York University	11.5	Excessive deflection/sway or loading stopped by judges
Cooper Union	11.5	Excessive deflection/sway or loading stopped by judges
College of New Jersey	11.5	Excessive deflection/sway or loading stopped by judges
Rutgers University	11.5	Excessive deflection/sway or loading stopped by judges
Stony Brook University	10.8.2	Construction Time Limit Exceeded. 45 minutes
New Jersey Institute of Technology	None	
Manhattan College	None	

### Construction Speed

Full Name	Time (minutes)	Rank
New Jersey Institute of Technology	13.08	1
Manhattan College	33.87	2
Rutgers University	196.00	NR
College of New Jersey	184.75	NR
Cooper Union	24.58	NR
Stony Brook University	9999.00	NR
New York University	193.75	NR

### Lightness

Full Name	Weight (lbs)	Rank
New Jersey Institute of Technology	523.1	1
Manhattan College	662.6	2
Rutgers University	209.9	NR
College of New Jersey	489.7	NR
Cooper Union	408.9	NR
Stony Brook University	600.0	NR
New York University	497.9	NR

### Aesthetics

Full Name	Score	Rank
College of New Jersey	12.40	1
New Jersey Institute of Technology	12.20	2
Rutgers University	11.60	3
Cooper Union	11.40	4
New York University	11.20	5
Manhattan College	10.00	6
Stony Brook University	6.80	7

## Stiffness

Full Name	Agg D (in)	Rank
New Jersey Institute of Technology	1.79	1
Manhattan College	3.26	2
Rutgers University	0.00	NR
College of New Jersey	0.00	NR
Cooper Union	0.00	NR
Stony Brook University	0.00	NR
New York University	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
New Jersey Institute of Technology	\$ 3,897,130.71	1
Manhattan College	\$ 6,693,592.16	2
Rutgers University	\$ 73,099,517.78	NR
College of New Jersey	\$ 7,550,593.30	NR
Cooper Union	\$ 2,420,693.02	NR
Stony Brook University	\$ 5,960,234,154.00	NR
New York University	\$ 68,338,860.13	NR

## Economy

Full Name	Cc	Rank
New Jersey Institute of Technology	\$ 7,500,000.00	1
Manhattan College	\$ 15,245,833.33	2
Rutgers University	\$ 94,000,000.00	NR
College of New Jersey	\$ 91,187,500.00	NR
Cooper Union	\$ 14,400,000.00	NR
Stony Brook University	\$ 5,999,400,000.00	NR
New York University	\$ 111,437,500.00	NR

## Efficiency

Full Name	Cs	Rank
New Jersey Institute of Technology	\$ 7,397,130.71	1
Manhattan College	\$ 11,310,574.50	2
Rutgers University	\$ 788,726.53	NR
College of New Jersey	\$ 3,995,304.70	NR
Cooper Union	\$ 1,381,248.98	NR
Stony Brook University	\$ 1,500,000.00	NR
New York University	\$ 1,901,360.13	NR

## Overall

Full Name	Cc + Cs	Rank
New Jersey Institute of Technology	\$ 14,897,130.71	1
Manhattan College	\$ 26,556,407.84	2
Rutgers University	\$ 94,788,726.53	NR
College of New Jersey	\$ 95,182,804.70	NR
Cooper Union	\$ 15,781,248.98	NR
Stony Brook University	\$ 6,000,900,000.00	NR
New York University	\$ 113,338,860.13	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Mid-Atlantic East
<b>Location:</b>	Villanova University, Pennsylvania
<b>Date:</b>	Saturday, April 22, 2023
<b>Die Roll Result:</b>	2

### Not Ranked

Full Name	Ineligibility	Reason
Temple University	9.3	Excessive dimensional violation
Drexel University	11.5	Excessive deflection/sway or loading stopped by judges
University of Maryland	11.5	Excessive deflection/sway or loading stopped by judges
Johns Hopkins University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Morgan State University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Lehigh University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Lafayette College	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Lafayette College	19.52	1
Johns Hopkins University	9999.00	NR
Drexel University	18.77	NR
Morgan State University	9999.00	NR
Temple University	9999.00	NR
Lehigh University	9999.00	NR
University of Maryland	42.90	NR

### Lightness

Full Name	Weight (lbs)	Rank
Lafayette College	308.7	1
Johns Hopkins University	648.7	NR
Drexel University	251.9	NR
Morgan State University	267.6	NR
Temple University	759.2	NR
Lehigh University	554.5	NR
University of Maryland	956.2	NR

### Aesthetics

Full Name	Score	Rank
Drexel University	12.17	1
Lafayette College	10.67	2
Johns Hopkins University	10.33	3
University of Maryland	8.17	4
Morgan State University	8.17	5
Lehigh University	5.83	6
Temple University	4.50	7

## Stiffness

Full Name	Agg D (in)	Rank
Lafayette College	0.89	1
Johns Hopkins University	2.94	NR
Drexel University	6.70	NR
Morgan State University	6.82	NR
Temple University	0.00	NR
Lehigh University	9.87	NR
University of Maryland	8.12	NR

## Cost Estimate

Full Name	Estimate	Rank
Lafayette College	\$ 3,376,153.29	1
Johns Hopkins University	\$ 5,947,969,292.91	NR
Drexel University	\$ 11,065,070.79	NR
Morgan State University	\$ 5,995,548,355.11	NR
Temple University	\$ 5,971,963,521.72	NR
Lehigh University	\$ 5,018,120,997.91	NR
University of Maryland	\$ 28,892,209.62	NR

## Economy

Full Name	Cc	Rank
Lafayette College	\$ 7,731,666.67	1
Johns Hopkins University	\$ 6,003,400,000.00	NR
Drexel University	\$ 11,394,166.67	NR
Morgan State University	\$ 6,003,400,000.00	NR
Temple University	\$ 5,999,400,000.00	NR
Lehigh University	\$ 5,003,500,000.00	NR
University of Maryland	\$ 25,102,500.00	NR

## Efficiency

Full Name	Cs	Rank
Lafayette College	\$ 3,577,188.76	1
Johns Hopkins University	\$ 21,108,780.91	NR
Drexel University	\$ 29,670,904.12	NR
Morgan State University	\$ 30,148,355.11	NR
Temple University	\$ 2,563,521.72	NR
Lehigh University	\$ 39,620,997.91	NR
University of Maryland	\$ 36,005,290.38	NR

## Overall

Full Name	Cc + Cs	Rank
Lafayette College	\$ 11,308,855.43	1
Johns Hopkins University	\$ 6,024,508,780.91	NR
Drexel University	\$ 41,065,070.79	NR
Morgan State University	\$ 6,033,548,355.11	NR
Temple University	\$ 6,001,963,521.72	NR
Lehigh University	\$ 5,043,120,997.91	NR
University of Maryland	\$ 61,107,790.38	NR





## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Mid-America</b>
<b>Location:</b>	<b>Manhattan, Kansas</b>
<b>Date:</b>	<b>Saturday, April 15, 2023</b>
<b>Die Roll Result:</b>	<b>3</b>

### Not Ranked

Full Name	Ineligibility	Reason
Missouri State University	9.3	Excessive dimensional violation
William Jewell College	11.5	Excessive deflection/sway or loading stopped by judges
Southern Illinois University, Carbondale	11.5	Excessive deflection/sway or loading stopped by judges
Kansas State University	None	
Iowa State University	None	
Missouri University of Science and Technology	None	
South Dakota State University	None	
University of Missouri, Columbia	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Missouri University of Science and Technology	14.43	1
University of Missouri, Columbia	16.23	2
Kansas State University	30.03	3
South Dakota State University	42.33	4
Iowa State University	53.57	5
William Jewell College	15.52	NR
Missouri State University	235.50	NR
Southern Illinois University, Carbondale	21.85	NR

### Lightness

Full Name	Weight (lbs)	Rank
Kansas State University	282.2	1
Missouri University of Science and Technology	363.2	2
University of Missouri, Columbia	366.6	3
South Dakota State University	428.7	4
Iowa State University	1178.5	5
William Jewell College	502.1	NR
Missouri State University	1280.0	NR
Southern Illinois University, Carbondale	311.4	NR

### Aesthetics

Full Name	Score	Rank
Missouri University of Science and Technology	13.33	1
Kansas State University	11.67	2
South Dakota State University	11.33	3
University of Missouri, Columbia	11.33	4
Southern Illinois University, Carbondale	10.67	5
Iowa State University	9.33	6
William Jewell College	8.67	7
Missouri State University	8.67	8

## Stiffness

Full Name	Agg D (in)	Rank
Missouri University of Science and Technology	0.97	1
South Dakota State University	1.15	2
Iowa State University	1.25	3
Kansas State University	2.40	4
University of Missouri, Columbia	4.05	5
William Jewell College	6.19	NR
Missouri State University	0.00	NR
Southern Illinois University, Carbondale	6.00	NR

## Cost Estimate

Full Name	Estimate	Rank
Missouri University of Science and Technology	\$ 248,444.37	1
Iowa State University	\$ 3,856,096.52	2
Kansas State University	\$ 3,999,850.28	3
South Dakota State University	\$ 4,652,019.00	4
University of Missouri, Columbia	\$ 21,647,461.07	5
William Jewell College	\$ 24,016,974.53	NR
Missouri State University	\$ 110,075,000.00	NR
Southern Illinois University, Carbondale	\$ 26,728,236.59	NR

## Economy

Full Name	Cc	Rank
Missouri University of Science and Technology	\$ 7,960,000.00	1
University of Missouri, Columbia	\$ 13,040,000.00	2
Kansas State University	\$ 13,266,666.67	3
South Dakota State University	\$ 20,587,500.00	4
Iowa State University	\$ 23,477,500.00	5
William Jewell College	\$ 12,610,000.00	NR
Missouri State University	\$ 121,875,000.00	NR
Southern Illinois University, Carbondale	\$ 16,147,500.00	NR

## Efficiency

Full Name	Cs	Rank
Missouri University of Science and Technology	\$ 5,119,284.63	1
South Dakota State University	\$ 5,450,912.00	2
Kansas State University	\$ 8,137,244.62	3
Iowa State University	\$ 10,117,995.52	4
University of Missouri, Columbia	\$ 23,631,914.18	5
William Jewell College	\$ 31,485,988.53	NR
Missouri State University	\$ 3,200,000.00	NR
Southern Illinois University, Carbondale	\$ 28,181,241.18	NR

## Overall

Full Name	Cc + Cs	Rank
Missouri University of Science and Technology	\$ 13,079,284.63	1
Kansas State University	\$ 21,403,911.28	2
South Dakota State University	\$ 26,038,412.00	3
Iowa State University	\$ 33,595,495.52	4
University of Missouri, Columbia	\$ 36,671,914.18	5
William Jewell College	\$ 44,095,988.53	NR
Missouri State University	\$ 125,075,000.00	NR
Southern Illinois University, Carbondale	\$ 44,328,741.18	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Mid-Atlantic West
<b>Location:</b>	Middletown, Pennsylvania
<b>Date:</b>	Saturday, April 15, 2023
<b>Die Roll Result:</b>	3

### Not Ranked

Full Name	Ineligibility	Reason
George Washington University	11.5	Excessive deflection/sway or loading stopped by judges
Pennsylvania State University, Harrisburg	11.5	Excessive deflection/sway or loading stopped by judges
Geneva College	11.5	Excessive deflection/sway or loading stopped by judges
Pennsylvania State University, University Park	11.5	Excessive deflection/sway or loading stopped by judges
The Catholic University of America	11.5	Excessive deflection/sway or loading stopped by judges
University of Pittsburgh	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Pittsburgh at Johnstown	10.8.2	Construction Time Limit Exceeded. 45 minutes

### Construction Speed

Full Name	Time (minutes)	Rank
University of Pittsburgh	9999.00	NR
George Washington University	193.50	NR
Pennsylvania State University, Harrisburg	44.08	NR
University of Pittsburgh at Johnstown	9999.00	NR
Geneva College	272.50	NR
Pennsylvania State University, University Park	21.05	NR
The Catholic University of America	27.12	NR

### Lightness

Full Name	Weight (lbs)	Rank
University of Pittsburgh	641.8	NR
George Washington University	399.6	NR
Pennsylvania State University, Harrisburg	262.6	NR
University of Pittsburgh at Johnstown	341.2	NR
Geneva College	1154.8	NR
Pennsylvania State University, University Park	160.4	NR
The Catholic University of America	239.3	NR

## Aesthetics

Full Name	Score	Rank
George Washington University	14.75	1
University of Pittsburgh at Johnstown	14.00	2
Geneva College	11.00	3
The Catholic University of America	11.00	3
University of Pittsburgh	10.75	5
Pennsylvania State University, University Park	10.50	6
Pennsylvania State University, Harrisburg	8.00	7

## Stiffness

Full Name	Agg D (in)	Rank
University of Pittsburgh	6.17	NR
George Washington University	1.98	NR
Pennsylvania State University, Harrisburg	5.87	NR
University of Pittsburgh at Johnstown	6.11	NR
Geneva College	6.55	NR
Pennsylvania State University, University Park	5.86	NR
The Catholic University of America	6.91	NR

## Cost Estimate

Full Name	Estimate	Rank
University of Pittsburgh	\$ 5,978,813,476.31	NR
George Washington University	\$ 89,837,083.19	NR
Pennsylvania State University, Harrisburg	\$ 12,513,074.50	NR
University of Pittsburgh at Johnstown	\$ 6,013,331,508.86	NR
Geneva College	\$ 109,744,090.38	NR
Pennsylvania State University, University Park	\$ 24,172,111.94	NR
The Catholic University of America	\$ 39,433,542.67	NR

## Economy

Full Name	Cc	Rank
University of Pittsburgh	\$ 6,003,400,000.00	NR
George Washington University	\$ 111,375,000.00	NR
Pennsylvania State University, Harrisburg	\$ 25,025,000.00	NR
University of Pittsburgh at Johnstown	\$ 6,003,400,000.00	NR
Geneva College	\$ 135,125,000.00	NR
Pennsylvania State University, University Park	\$ 15,580,000.00	NR
The Catholic University of America	\$ 18,257,500.00	NR

## Efficiency

Full Name	Cs	Rank
University of Pittsburgh	\$ 31,502,886.31	NR
George Washington University	\$ 7,112,274.20	NR
Pennsylvania State University, Harrisburg	\$ 27,488,074.50	NR
University of Pittsburgh at Johnstown	\$ 28,986,633.63	NR
Geneva College	\$ 35,519,090.38	NR
Pennsylvania State University, University Park	\$ 26,655,555.87	NR
The Catholic University of America	\$ 30,016,626.42	NR

## Overall

Full Name	Cc + Cs	Rank
University of Pittsburgh	\$ 6,034,902,886.31	NR
George Washington University	\$ 118,487,274.20	NR
Pennsylvania State University, Harrisburg	\$ 52,513,074.50	NR
University of Pittsburgh at Johnstown	\$ 6,032,386,633.63	NR
Geneva College	\$ 170,644,090.38	NR
Pennsylvania State University, University Park	\$ 42,235,555.87	NR
The Catholic University of America	\$ 48,274,126.42	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Mid-Pacific
<b>Location:</b>	Chico, California
<b>Date:</b>	Saturday, April 22, 2023
<b>Die Roll Result:</b>	6

### Not Ranked

Full Name	Ineligibility	Reason
San José State University	11.5	Excessive deflection/sway or loading stopped by judges
California State University, Fresno	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of California, Davis	None	
California State University, Chico	None	
University of California, Berkeley	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of California, Berkeley	17.18	1
California State University, Chico	85.25	2
University of California, Davis	197.75	3
San José State University	23.33	NR
California State University, Fresno	9999.00	NR

### Lightness

Full Name	Weight (lbs)	Rank
University of California, Berkeley	191.3	1
University of California, Davis	601.6	2
California State University, Chico	1113.9	3
San José State University	452.8	NR
California State University, Fresno	1142.0	NR

### Aesthetics

Full Name	Score	Rank
University of California, Berkeley	13.00	1
University of California, Davis	12.17	2
California State University, Chico	10.83	3
San José State University	8.33	4
California State University, Fresno	7.33	5

### Stiffness

Full Name	Agg D (in)	Rank
University of California, Berkeley	0.68	1
University of California, Davis	1.62	2
California State University, Chico	2.63	3
San José State University	5.10	NR
California State University, Fresno	2.33	NR

## Cost Estimate

Full Name	Estimate	Rank
University of California, Berkeley	\$ 65,682.60	1
University of California, Davis	\$ 6,250,204.72	2
California State University, Chico	\$ 54,563,965.24	3
San José State University	\$ 30,767,672.24	NR
California State University, Fresno	\$ 5,865,078,224.74	NR

## Economy

Full Name	Cc	Rank
University of California, Berkeley	\$ 9,085,000.00	1
California State University, Chico	\$ 28,137,500.00	2
University of California, Davis	\$ 76,437,500.00	3
San José State University	\$ 16,162,500.00	NR
California State University, Fresno	\$ 5,999,400,000.00	NR

## Efficiency

Full Name	Cs	Rank
University of California, Berkeley	\$ 2,618,833.40	1
University of California, Davis	\$ 7,112,704.72	2
California State University, Chico	\$ 14,298,069.76	3
San José State University	\$ 25,779,151.76	NR
California State University, Fresno	\$ 22,246,485.74	NR

## Overall

Full Name	Cc + Cs	Rank
University of California, Berkeley	\$ 11,703,833.40	1
California State University, Chico	\$ 42,435,569.76	2
University of California, Davis	\$ 83,550,204.72	3
San José State University	\$ 41,941,651.76	NR
California State University, Fresno	\$ 6,021,646,485.74	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Mid-South</b>
<b>Location:</b>	<b>Chattanooga, Tennessee</b>
<b>Date:</b>	<b>Saturday, April 1, 2023</b>
<b>Die Roll Result:</b>	<b>6</b>

### Not Ranked

Full Name	Ineligibility	Reason
Arkansas State University	11.5	Excessive deflection/sway or loading stopped by judges
Tennessee Tech	11.5	Excessive deflection/sway or loading stopped by judges
University of Tennessee, Knoxville	11.5	Excessive deflection/sway or loading stopped by judges
Lipscomb University	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Arkansas, Fayetteville	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Tennessee, Chattanooga	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Tennessee, Martin	10.8.2	Construction Time Limit Exceeded. 45 minutes
Christian Brothers University	None	
Harding University	None	
Vanderbilt University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Harding University	20.63	1
Christian Brothers University	60.45	2
Vanderbilt University	200.25	3
Arkansas State University	193.00	NR
Lipscomb University	9999.00	NR
Tennessee Tech	192.75	NR
University of Arkansas, Fayetteville	9999.00	NR
University of Tennessee, Chattanooga	9999.00	NR
University of Tennessee, Knoxville	198.75	NR
University of Tennessee, Martin	9999.00	NR

## Lightness

Full Name	Weight (lbs)	Rank
Harding University	363.0	1
Vanderbilt University	521.6	2
Christian Brothers University	800.2	3
Arkansas State University	626.3	NR
Lipscomb University	664.3	NR
Tennessee Tech	191.9	NR
University of Arkansas, Fayetteville	579.9	NR
University of Tennessee, Chattanooga	704.7	NR
University of Tennessee, Knoxville	484.3	NR
University of Tennessee, Martin	1542.2	NR

## Aesthetics

Full Name	Score	Rank
Christian Brothers University	13.00	1
University of Tennessee, Knoxville	12.17	2
Tennessee Tech	12.00	3
Vanderbilt University	11.17	4
Lipscomb University	10.50	5
Arkansas State University	10.17	6
Harding University	9.67	7
University of Tennessee, Chattanooga	9.33	8
University of Arkansas, Fayetteville	8.67	9
University of Tennessee, Martin	8.17	10

## Stiffness

Full Name	Agg D (in)	Rank
Vanderbilt University	1.69	1
Harding University	2.43	2
Christian Brothers University	2.91	3
Arkansas State University	0.00	NR
Lipscomb University	0.00	NR
Tennessee Tech	0.00	NR
University of Arkansas, Fayetteville	0.00	NR
University of Tennessee, Chattanooga	0.00	NR
University of Tennessee, Knoxville	0.00	NR
University of Tennessee, Martin	2.07	NR

## Cost Estimate

Full Name	Estimate	Rank
Harding University	\$ 2,464,334.48	1
Vanderbilt University	\$ 5,245,104.58	2
Christian Brothers University	\$ 20,545,015.90	3
Arkansas State University	\$ 90,928,817.78	NR
Lipscomb University	\$ 5,886,438,831.27	NR
Tennessee Tech	\$ 91,140,684.23	NR
University of Arkansas, Fayetteville	\$ 5,937,064,407.86	NR
University of Tennessee, Chattanooga	\$ 5,968,810,293.39	NR
University of Tennessee, Knoxville	\$ 93,953,039.59	NR
University of Tennessee, Martin	\$ 5,976,524,539.19	NR



## Economy

Full Name	Cc	Rank
Harding University	\$ 9,816,666.67	1
Christian Brothers University	\$ 21,482,500.00	2
Vanderbilt University	\$ 77,062,500.00	3
Arkansas State University	\$ 111,250,000.00	NR
Lipscomb University	\$ 5,999,400,000.00	NR
Tennessee Tech	\$ 111,187,500.00	NR
University of Arkansas, Fayetteville	\$ 5,999,400,000.00	NR
University of Tennessee, Chattanooga	\$ 5,999,400,000.00	NR
University of Tennessee, Knoxville	\$ 112,687,500.00	NR
University of Tennessee, Martin	\$ 5,999,400,000.00	NR

## Efficiency

Full Name	Cs	Rank
Harding University	\$ 8,148,192.82	1
Vanderbilt University	\$ 9,436,965.42	2
Christian Brothers University	\$ 12,912,515.90	3
Arkansas State University	\$ 2,428,817.78	NR
Lipscomb University	\$ 7,491,803.55	NR
Tennessee Tech	\$ 753,184.23	NR
University of Arkansas, Fayetteville	\$ 3,164,407.86	NR
University of Tennessee, Chattanooga	\$ 2,771,644.39	NR
University of Tennessee, Knoxville	\$ 2,765,539.59	NR
University of Tennessee, Martin	\$ 19,528,829.19	NR

## Overall

Full Name	Cc + Cs	Rank
Harding University	\$ 17,964,859.48	1
Christian Brothers University	\$ 34,395,015.90	2
Vanderbilt University	\$ 86,499,465.42	3
Arkansas State University	\$ 113,678,817.78	NR
Lipscomb University	\$ 6,006,891,803.55	NR
Tennessee Tech	\$ 111,940,684.23	NR
University of Arkansas, Fayetteville	\$ 6,002,564,407.86	NR
University of Tennessee, Chattanooga	\$ 6,002,171,644.39	NR
University of Tennessee, Knoxville	\$ 115,453,039.59	NR
University of Tennessee, Martin	\$ 6,018,928,829.19	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Northeast</b>
<b>Location:</b>	<b>Boston, Massachusetts</b>
<b>Date:</b>	<b>Saturday, April 22, 2023</b>
<b>Die Roll Result:</b>	<b>6</b>

### Not Ranked

Full Name	Ineligibility	Reason
Worcester Polytechnic Institute	5	Judges deem the bridge unsafe to compete for any reason
Wentworth Institute of Technology	11.5	Excessive deflection/sway or loading stopped by judges
Université Laval	11.5	Excessive deflection/sway or loading stopped by judges
École de Technologie Supérieure	11.5	Excessive deflection/sway or loading stopped by judges
University of Massachusetts, Lowell	10.8.2	Construction Time Limit Exceeded. 45 minutes
Norwich University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Northeastern University	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Maine	10.8.2	Construction Time Limit Exceeded. 45 minutes
Tufts University	None	
University of Massachusetts, Amherst	None	
University of Connecticut	None	
Western New England University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of Connecticut	14.18	1
Tufts University	24.57	2
Western New England University	42.23	3
University of Massachusetts, Amherst	202.50	4
University of Massachusetts, Lowell	9999.00	NR
Norwich University	9999.00	NR
Worcester Polytechnic Institute	9999.00	NR
Wentworth Institute of Technology	186.00	NR
Université Laval	35.18	NR
Northeastern University	9999.00	NR
École de Technologie Supérieure	189.75	NR
University of Maine	9999.00	NR

## Lightness

Full Name	Weight (lbs)	Rank
University of Connecticut	238.9	1
Tufts University	423.5	2
University of Massachusetts, Amherst	527.2	3
Western New England University	552.3	4
University of Massachusetts, Lowell	668.7	NR
Norwich University	696.2	NR
Worcester Polytechnic Institute	546.0	NR
Wentworth Institute of Technology	1755.8	NR
Université Laval	353.5	NR
Northeastern University	1285.5	NR
École de Technologie Supérieure	222.7	NR
University of Maine	1296.5	NR

## Aesthetics

Full Name	Score	Rank
University of Massachusetts, Lowell	13.50	1
Western New England University	13.25	2
University of Maine	12.33	3
Tufts University	12.25	4
Université Laval	12.25	4
École de Technologie Supérieure	12.25	4
University of Massachusetts, Amherst	12.00	7
University of Connecticut	11.58	8
Northeastern University	11.50	9
Wentworth Institute of Technology	11.17	10
Worcester Polytechnic Institute	9.58	11
Norwich University	7.50	12

## Stiffness

Full Name	Agg D (in)	Rank
University of Connecticut	2.27	1
Western New England University	2.37	2
Tufts University	2.39	3
University of Massachusetts, Amherst	3.16	4
University of Massachusetts, Lowell	3.20	NR
Norwich University	6.20	NR
Worcester Polytechnic Institute	3.10	NR
Wentworth Institute of Technology	6.20	NR
Université Laval	0.02	NR
Northeastern University	0.00	NR
École de Technologie Supérieure	3.10	NR
University of Maine	0.40	NR

## Cost Estimate

Full Name	Estimate	Rank
Tufts University	\$ 1,598,115.96	1
University of Connecticut	\$ 5,570,401.36	2
University of Massachusetts, Amherst	\$ 5,672,319.39	3
Western New England University	\$ 9,592,811.26	4
University of Massachusetts, Lowell	\$ 5,909,914,910.77	NR
Norwich University	\$ 4,014,580,903.65	NR
Worcester Polytechnic Institute	\$ 5,955,137,173.97	NR
Wentworth Institute of Technology	\$ 116,032,028.98	NR
Université Laval	\$ 5,647,749.46	NR
Northeastern University	\$ 4,989,780,585.32	NR
École de Technologie Supérieure	\$ 96,566,461.73	NR
University of Maine	\$ 5,974,749,121.19	NR

## Economy

Full Name	Cc	Rank
University of Connecticut	\$ 5,598,333.33	1
Tufts University	\$ 9,114,166.67	2
Western New England University	\$ 21,052,500.00	3
University of Massachusetts, Amherst	\$ 113,625,000.00	4
University of Massachusetts, Lowell	\$ 6,003,400,000.00	NR
Norwich University	\$ 4,003,600,000.00	NR
Worcester Polytechnic Institute	\$ 6,003,400,000.00	NR
Wentworth Institute of Technology	\$ 113,500,000.00	NR
Université Laval	\$ 14,966,666.67	NR
Northeastern University	\$ 4,999,500,000.00	NR
École de Technologie Supérieure	\$ 78,437,500.00	NR
University of Maine	\$ 5,999,400,000.00	NR

## Efficiency

Full Name	Cs	Rank
University of Connecticut	\$ 7,372,068.03	1
Tufts University	\$ 8,983,949.29	2
University of Massachusetts, Amherst	\$ 11,211,236.39	3
Western New England University	\$ 11,540,311.26	4
University of Massachusetts, Lowell	\$ 21,514,910.77	NR
Norwich University	\$ 29,731,298.65	NR
Worcester Polytechnic Institute	\$ 23,737,173.97	NR
Wentworth Institute of Technology	\$ 34,032,028.98	NR
Université Laval	\$ 1,565,583.87	NR
Northeastern University	\$ 4,780,585.32	NR
École de Technologie Supérieure	\$ 19,516,961.73	NR
University of Maine	\$ 8,349,121.19	NR

## Overall

Full Name	Cc + Cs	Rank
University of Connecticut	\$ 12,970,401.36	1
Tufts University	\$ 18,098,115.96	2
Western New England University	\$ 32,592,811.26	3
University of Massachusetts, Amherst	\$ 124,836,236.39	4
University of Massachusetts, Lowell	\$ 6,024,914,910.77	NR
Norwich University	\$ 4,033,331,298.65	NR
Worcester Polytechnic Institute	\$ 6,027,137,173.97	NR
Wentworth Institute of Technology	\$ 147,532,028.98	NR
Université Laval	\$ 16,532,250.54	NR
Northeastern University	\$ 5,004,280,585.32	NR
École de Technologie Supérieure	\$ 97,954,461.73	NR
University of Maine	\$ 6,007,749,121.19	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Pacific Northwest</b>
<b>Location:</b>	<b>Bozeman, Montana</b>
<b>Date:</b>	<b>Friday, April 14, 2023</b>
<b>Die Roll Result:</b>	<b>1</b>

### Not Ranked

Full Name	Ineligibility	Reason
Oregon Institute of Technology	9.3	Excessive dimensional violation
Seattle University	11.5	Excessive deflection/sway or loading stopped by judges
Montana Technological University	11.5	Excessive deflection/sway or loading stopped by judges
Portland State University	11.5	Excessive deflection/sway or loading stopped by judges
University of Idaho	11.5	Excessive deflection/sway or loading stopped by judges
Oregon State University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Montana State University	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Alaska, Anchorage	None	
University of British Columbia	None	
University of Alaska, Fairbanks	None	
University of Washington	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of Alaska, Fairbanks	16.60	1
University of Alaska, Anchorage	21.27	2
University of British Columbia	26.90	3
University of Washington	41.50	4
Montana State University	9999.00	NR
Montana Technological University	201.25	NR
Oregon Institute of Technology	9999.00	NR
Oregon State University	9999.00	NR
Portland State University	23.65	NR
Seattle University	196.50	NR
University of Idaho	26.35	NR

## Lightness

Full Name	Weight (lbs)	Rank
University of Alaska, Fairbanks	234.3	1
University of Alaska, Anchorage	302.1	2
University of British Columbia	408.7	3
University of Washington	733.4	4
Montana State University	1972.7	NR
Montana Technological University	658.3	NR
Oregon Institute of Technology	476.7	NR
Oregon State University	316.1	NR
Portland State University	414.8	NR
Seattle University	940.0	NR
University of Idaho	347.6	NR

## Aesthetics

Full Name	Score	Rank
University of Alaska, Fairbanks	13.67	1
University of Alaska, Anchorage	13.33	2
Portland State University	13.17	3
University of British Columbia	12.83	4
Seattle University	11.83	5
Oregon State University	11.50	6
University of Idaho	11.50	7
Oregon Institute of Technology	11.50	8
University of Washington	11.33	9
Montana Technological University	9.67	10
Montana State University	9.00	11

## Stiffness

Full Name	Agg D (in)	Rank
University of Alaska, Anchorage	0.93	1
University of Alaska, Fairbanks	1.05	2
University of Washington	1.87	3
University of British Columbia	2.39	4
Montana State University	0.02	NR
Montana Technological University	0.00	NR
Oregon Institute of Technology	0.00	NR
Oregon State University	0.00	NR
Portland State University	0.00	NR
Seattle University	6.29	NR
University of Idaho	5.61	NR

## Cost Estimate

Full Name	Estimate	Rank
University of Alaska, Anchorage	\$ 286,278.34	1
University of Alaska, Fairbanks	\$ 353,328.44	2
University of British Columbia	\$ 6,671,033.58	3
University of Washington	\$ 17,241,676.80	4
Montana State University	\$ 5,891,248,256.26	NR
Montana Technological University	\$ 14,636,223.65	NR
Oregon Institute of Technology	\$ 3,981,848,921.30	NR
Oregon State University	\$ 5,967,705,198.00	NR
Portland State University	\$ 783,344.68	NR
Seattle University	\$ 35,498,551.83	NR
University of Idaho	\$ 5,850,769.58	NR

## Economy

Full Name	Cc	Rank
University of Alaska, Fairbanks	\$ 6,415,000.00	1
University of Alaska, Anchorage	\$ 10,133,333.33	2
University of British Columbia	\$ 10,385,000.00	3
University of Washington	\$ 19,562,500.00	4
Montana State University	\$ 5,999,400,000.00	NR
Montana Technological University	\$ 113,312,500.00	NR
Oregon Institute of Technology	\$ 3,999,600,000.00	NR
Oregon State University	\$ 5,999,400,000.00	NR
Portland State University	\$ 10,825,000.00	NR
Seattle University	\$ 116,125,000.00	NR
University of Idaho	\$ 16,237,500.00	NR

## Efficiency

Full Name	Cs	Rank
University of Alaska, Fairbanks	\$ 3,977,160.60	1
University of Alaska, Anchorage	\$ 4,143,737.01	2
University of British Columbia	\$ 8,326,469.58	3
University of Washington	\$ 9,057,785.74	4
Montana State University	\$ 14,284,321.26	NR
Montana Technological University	\$ 7,008,385.35	NR
Oregon Institute of Technology	\$ 1,982,277.30	NR
Oregon State University	\$ 1,305,198.00	NR
Portland State University	\$ 1,672,569.32	NR
Seattle University	\$ 31,578,551.83	NR
University of Idaho	\$ 26,884,344.17	NR

## Overall

Full Name	Cc + Cs	Rank
University of Alaska, Fairbanks	\$ 10,392,160.60	1
University of Alaska, Anchorage	\$ 14,277,070.34	2
University of British Columbia	\$ 18,711,469.58	3
University of Washington	\$ 28,620,285.74	4
Montana State University	\$ 6,013,684,321.26	NR
Montana Technological University	\$ 120,320,885.35	NR
Oregon Institute of Technology	\$ 4,001,582,277.30	NR
Oregon State University	\$ 6,000,705,198.00	NR
Portland State University	\$ 12,497,569.32	NR
Seattle University	\$ 147,703,551.83	NR
University of Idaho	\$ 43,121,844.17	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Pacific Southwest</b>
<b>Location:</b>	<b>Northridge, California</b>
<b>Date:</b>	<b>Saturday, March 25, 2023</b>
<b>Die Roll Result:</b>	<b>6</b>

### Not Ranked

Full Name	Ineligibility	Reason
California State University, Fullerton	4	Did not complete competition.
San Diego State University	9.3	Excessive dimensional violation
University of California, Los Angeles	11.4	Failed lateral load test
California Baptist University	11.5	Excessive deflection/sway or loading stopped by judges
California State Polytechnic University, San Luis Obispo	11.5	Excessive deflection/sway or loading stopped by judges
California State University, Long Beach	11.5	Excessive deflection/sway or loading stopped by judges
University of California, Irvine	11.5	Excessive deflection/sway or loading stopped by judges
University of Hawaii at Manoa	11.5	Excessive deflection/sway or loading stopped by judges
California State University, Los Angeles	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Southern California	10.8.2	Construction Time Limit Exceeded. 45 minutes
California State Polytechnic University, Pomona	None	
California State University, Northridge	None	
University of California, San Diego	None	

### Construction Speed

Full Name	Time (minutes)	Rank
California State University, Northridge	15.02	1
University of California, San Diego	22.08	2
California State Polytechnic University, Pomona	22.72	3
California Baptist University	30.90	NR
California State Polytechnic University, San Luis Obispo	27.33	NR
California State University, Fullerton	0.00	NR
California State University, Long Beach	216.50	NR
California State University, Los Angeles	9999.00	NR
San Diego State University	196.65	NR
University of California, Irvine	23.33	NR
University of California, Los Angeles	184.50	NR
University of Hawaii at Manoa	186.00	NR
University of Southern California	9999.00	NR



## Lightness

Full Name	Weight (lbs)	Rank
California State University, Northridge	248.6	1
University of California, San Diego	271.9	2
California State Polytechnic University, Pomona	339.9	3
California Baptist University	762.2	NR
California State Polytechnic University, San Luis Obispo	408.0	NR
California State University, Fullerton	0.0	NR
California State University, Long Beach	3960.3	NR
California State University, Los Angeles	320.0	NR
San Diego State University	1372.9	NR
University of California, Irvine	838.8	NR
University of California, Los Angeles	1750.2	NR
University of Hawaii at Manoa	484.8	NR
University of Southern California	293.5	NR

## Aesthetics

Full Name	Score	Rank
University of California, San Diego	13.00	1
California State Polytechnic University, Pomona	12.80	2
California State University, Northridge	12.20	3
California State University, Los Angeles	11.40	4
University of California, Los Angeles	11.20	5
University of Hawaii at Manoa	11.00	6
California State University, Long Beach	10.40	7
California State Polytechnic University, San Luis Obispo	9.60	8
University of Southern California	9.00	9
California Baptist University	8.80	10
San Diego State University	8.00	11
University of California, Irvine	7.80	12
California State University, Fullerton	6.40	13

## Stiffness

Full Name	Agg D (in)	Rank
University of California, San Diego	0.59	1
California State Polytechnic University, Pomona	0.64	2
California State University, Northridge	0.69	3
California Baptist University	0.00	NR
California State Polytechnic University, San Luis Obispo	0.00	NR
California State University, Fullerton	0.00	NR
California State University, Long Beach	0.00	NR
California State University, Los Angeles	0.00	NR
San Diego State University	0.00	NR
University of California, Irvine	0.00	NR
University of California, Los Angeles	0.00	NR
University of Hawaii at Manoa	0.00	NR
University of Southern California	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
California State University, Northridge	\$ 183,149.29	1
University of California, San Diego	\$ 511,628.04	2
California State Polytechnic University, Pomona	\$ 4,066,873.24	3
California Baptist University	\$ 302,228.98	NR
California State Polytechnic University, San Luis Obispo	\$ 8,906,628.46	NR
California State University, Fullerton	\$ 1.00	NR
California State University, Long Beach	\$ 104,562,098.46	NR
California State University, Los Angeles	\$ 5,964,756,425.40	NR
San Diego State University	\$ 34,396,795.65	NR
University of California, Irvine	\$ 23,095,893.61	NR
University of California, Los Angeles	\$ 92,030,287.45	NR
University of Hawaii at Manoa	\$ 89,120,692.40	NR
University of Southern California	\$ 5,999,859,055.78	NR

## Economy

Full Name	Cc	Rank
California State University, Northridge	\$ 5,669,166.67	1
California State Polytechnic University, Pomona	\$ 7,436,666.67	2
University of California, San Diego	\$ 7,970,833.33	3
California Baptist University	\$ 16,615,000.00	NR
California State Polytechnic University, San Luis Obispo	\$ 13,512,500.00	NR
California State University, Fullerton	\$ 0.00	NR
California State University, Long Beach	\$ 117,125,000.00	NR
California State University, Los Angeles	\$ 5,999,400,000.00	NR
San Diego State University	\$ 53,122,500.00	NR
University of California, Irvine	\$ 11,354,166.67	NR
University of California, Los Angeles	\$ 109,125,000.00	NR
University of Hawaii at Manoa	\$ 109,500,000.00	NR
University of Southern California	\$ 5,999,400,000.00	NR

## Efficiency

Full Name	Cs	Rank
University of California, San Diego	\$ 3,057,558.31	1
California State University, Northridge	\$ 3,113,376.86	2
California State Polytechnic University, Pomona	\$ 3,580,358.57	3
California Baptist University	\$ 2,737,244.62	NR
California State Polytechnic University, San Luis Obispo	\$ 2,057,304.54	NR
California State University, Fullerton	\$ 0.00	NR
California State University, Long Beach	\$ 11,223,487.36	NR
California State University, Los Angeles	\$ 800,000.00	NR
San Diego State University	\$ 5,074,295.65	NR
University of California, Irvine	\$ 3,226,288.77	NR
University of California, Los Angeles	\$ 5,605,654.35	NR
University of Hawaii at Manoa	\$ 1,781,717.40	NR
University of Southern California	\$ 1,653,055.78	NR

## Overall

Full Name	Cc + Cs	Rank
California State University, Northridge	\$ 8,782,543.53	1
California State Polytechnic University, Pomona	\$ 11,017,025.24	2
University of California, San Diego	\$ 11,028,391.64	3
California Baptist University	\$ 19,352,244.62	NR
California State Polytechnic University, San Luis Obispo	\$ 15,569,804.54	NR
California State University, Fullerton	\$ 0.00	NR
California State University, Long Beach	\$ 128,348,487.36	NR
California State University, Los Angeles	\$ 6,000,200,000.00	NR
San Diego State University	\$ 58,196,795.65	NR
University of California, Irvine	\$ 14,580,455.43	NR
University of California, Los Angeles	\$ 114,730,654.35	NR
University of Hawaii at Manoa	\$ 111,281,717.40	NR
University of Southern California	\$ 6,001,053,055.78	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	ASCE Region 6
<b>Location:</b>	Amarillo, Texas
<b>Date:</b>	Friday, April 14, 2023
<b>Die Roll Result:</b>	6

### Not Ranked

Full Name	Ineligibility	Reason
University of Texas at Austin	4	Did not complete competition.
Texas A&M University	9.3	Excessive dimensional violation
LeTourneau University	11.5	Excessive deflection/sway or loading stopped by judges
New Mexico State University	11.5	Excessive deflection/sway or loading stopped by judges
Texas Tech University	11.5	Excessive deflection/sway or loading stopped by judges
Universidad Nacional Autónoma de Mexico	11.5	Excessive deflection/sway or loading stopped by judges
Universidad Panamericana, Guadalajara	11.5	Excessive deflection/sway or loading stopped by judges
University of Oklahoma	11.5	Excessive deflection/sway or loading stopped by judges
University of Texas at San Antonio	11.5	Excessive deflection/sway or loading stopped by judges
Angelo State University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Southern Methodist University	10.8.2	Construction Time Limit Exceeded. 45 minutes
New Mexico Institute of Mining and Technology	9.2.2	Bridge does not provide access for safely placing decking & load.
Tecnológico de Monterrey	9.2.2	Bridge does not provide access for safely placing decking & load.
University of Texas, Rio Grande Valley	9.2.2	Bridge does not provide access for safely placing decking & load.
University of Texas at Arlington	None	
University of Texas at El Paso	None	
West Texas A&M University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
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University of Texas at Arlington	32.55	1
University of Texas at El Paso	34.77	2
West Texas A&M University	41.33	3
Angelo State University	9999.00	NR
LeTourneau University	38.92	NR
New Mexico Institute of Mining and Technology	430.25	NR
New Mexico State University	306.50	NR
Southern Methodist University	9999.00	NR
Tecnológico de Monterrey	228.75	NR
Texas A&M University	30.97	NR
Texas Tech University	511.65	NR
Universidad Nacional Autónoma de Mexico	27.07	NR
Universidad Panamericana, Guadalajara	22.58	NR
University of Oklahoma	202.50	NR
University of Texas at Austin	0.00	NR
University of Texas at San Antonio	220.00	NR
University of Texas, Rio Grande Valley	41.42	NR

## Lightness

Full Name	Weight (lbs)	Rank
University of Texas at Arlington	297.1	1
University of Texas at El Paso	393.7	2
West Texas A&M University	768.7	3
Angelo State University	621.8	NR
LeTourneau University	1098.0	NR
New Mexico Institute of Mining and Technology	834.9	NR
New Mexico State University	713.1	NR
Southern Methodist University	160.0	NR
Tecnológico de Monterrey	551.0	NR
Texas A&M University	676.1	NR
Texas Tech University	520.3	NR
Universidad Nacional Autónoma de Mexico	269.9	NR
Universidad Panamericana, Guadalajara	1363.4	NR
University of Oklahoma	451.0	NR
University of Texas at Austin	0.0	NR
University of Texas at San Antonio	309.6	NR
University of Texas, Rio Grande Valley	743.4	NR

## Aesthetics

Full Name	Score	Rank
Universidad Panamericana, Guadalajara	13.25	1
Texas Tech University	13.25	2
University of Texas at Arlington	13.00	3
Universidad Nacional Autónoma de Mexico	13.00	4
New Mexico State University	12.50	5
Tecnológico de Monterrey	11.75	6
University of Oklahoma	11.75	7
Southern Methodist University	11.75	8
University of Texas at El Paso	11.50	9
Angelo State University	11.50	10
University of Texas at San Antonio	10.75	11
New Mexico Institute of Mining and Technology	10.50	12
West Texas A&M University	9.25	13
Texas A&M University	8.50	14
LeTourneau University	8.00	15
University of Texas, Rio Grande Valley	6.75	16
University of Texas at Austin	6.25	17

## Stiffness

Full Name	Agg D (in)	Rank
University of Texas at Arlington	2.40	1
West Texas A&M University	4.24	2
University of Texas at El Paso	4.63	3
Angelo State University	0.00	NR
LeTourneau University	0.00	NR
New Mexico Institute of Mining and Technology	0.00	NR
New Mexico State University	0.00	NR
Southern Methodist University	0.00	NR
Tecnológico de Monterrey	0.00	NR
Texas A&M University	0.00	NR
Texas Tech University	0.00	NR
Universidad Nacional Autónoma de Mexico	0.00	NR
Universidad Panamericana, Guadalajara	0.00	NR
University of Oklahoma	0.00	NR
University of Texas at Austin	0.00	NR
University of Texas at San Antonio	0.00	NR
University of Texas, Rio Grande Valley	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
University of Texas at Arlington	\$ 4,835,407.81	1
University of Texas at El Paso	\$ 25,793,578.67	2
West Texas A&M University	\$ 28,946,222.96	3
Angelo State University	\$ 5,969,337,421.68	NR
LeTourneau University	\$ 1,811,945.22	NR
New Mexico Institute of Mining and Technology	\$ 151,772,059.43	NR
New Mexico State University	\$ 22,050,421.51	NR
Southern Methodist University	\$ 5,799,948,068.00	NR
Tecnológico de Monterrey	\$ 88,401,006.92	NR
Texas A&M University	\$ 45,060,623.14	NR
Texas Tech University	\$ 117,832,105.94	NR
Universidad Nacional Autónoma de Mexico	\$ 1,384,202.06	NR
Universidad Panamericana, Guadalajara	\$ 181,352.59	NR
University of Oklahoma	\$ 92,724,681.50	NR
University of Texas at Austin	\$ -	NR
University of Texas at San Antonio	\$ 93,911,030.99	NR
University of Texas, Rio Grande Valley	\$ 24,024,089.51	NR

## Economy

Full Name	Cc	Rank
University of Texas at Arlington	\$ 13,930,000.00	1
University of Texas at El Paso	\$ 22,497,500.00	2
West Texas A&M University	\$ 23,637,500.00	3
Angelo State University	\$ 5,999,400,000.00	NR
LeTourneau University	\$ 19,587,500.00	NR
New Mexico Institute of Mining and Technology	\$ 170,562,500.00	NR
New Mexico State University	\$ 139,625,000.00	NR
Southern Methodist University	\$ 5,999,400,000.00	NR
Tecnológico de Monterrey	\$ 120,187,500.00	NR
Texas A&M University	\$ 12,733,333.33	NR
Texas Tech University	\$ 138,377,500.00	NR
Universidad Nacional Autónoma de Mexico	\$ 9,701,666.67	NR
Universidad Panamericana, Guadalajara	\$ 12,325,000.00	NR
University of Oklahoma	\$ 113,625,000.00	NR
University of Texas at Austin	\$ 0.00	NR
University of Texas at San Antonio	\$ 118,000,000.00	NR
University of Texas, Rio Grande Valley	\$ 16,712,500.00	NR

## Efficiency

Full Name	Cs	Rank
University of Texas at Arlington	\$ 7,641,375.81	1
University of Texas at El Paso	\$ 24,637,640.31	2
West Texas A&M University	\$ 27,469,956.96	3
Angelo State University	\$ 6,629,279.68	NR
LeTourneau University	\$ 4,879,718.22	NR
New Mexico Institute of Mining and Technology	\$ 2,723,493.43	NR
New Mexico State University	\$ 3,426,850.51	NR
Southern Methodist University	\$ 400,000.00	NR
Tecnológico de Monterrey	\$ 1,747,707.92	NR
Texas A&M University	\$ 2,476,336.53	NR
Texas Tech University	\$ 2,274,605.94	NR
Universidad Nacional Autónoma de Mexico	\$ 1,152,106.27	NR
Universidad Panamericana, Guadalajara	\$ 4,760,258.41	NR
University of Oklahoma	\$ 1,737,681.50	NR
University of Texas at Austin	\$ 0.00	NR
University of Texas at San Antonio	\$ 1,036,568.99	NR
University of Texas, Rio Grande Valley	\$ 7,311,589.51	NR

## Overall

Full Name	Cc + Cs	Rank
University of Texas at Arlington	\$ 21,571,375.81	1
University of Texas at El Paso	\$ 47,135,140.31	2
West Texas A&M University	\$ 51,107,456.96	3
Angelo State University	\$ 6,006,029,279.68	NR
LeTourneau University	\$ 24,467,218.22	NR
New Mexico Institute of Mining and Technology	\$ 173,285,993.43	NR
New Mexico State University	\$ 143,051,850.51	NR
Southern Methodist University	\$ 5,999,800,000.00	NR
Tecnológico de Monterrey	\$ 121,935,207.92	NR
Texas A&M University	\$ 15,209,669.86	NR
Texas Tech University	\$ 140,652,105.94	NR
Universidad Nacional Autónoma de Mexico	\$ 10,853,772.94	NR
Universidad Panamericana, Guadalajara	\$ 17,085,258.41	NR
University of Oklahoma	\$ 115,362,681.50	NR
University of Texas at Austin	\$ 0.00	NR
University of Texas at San Antonio	\$ 119,036,568.99	NR
University of Texas, Rio Grande Valley	\$ 24,024,089.51	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Rocky Mountain
<b>Location:</b>	United States Air Force Academy, Colorado
<b>Date:</b>	Friday, April 21, 2023
<b>Die Roll Result:</b>	1

### Not Ranked

Full Name	Ineligibility	Reason
Colorado Mesa University	11.5	Excessive deflection/sway or loading stopped by judges
United States Air Force Academy	11.5	Excessive deflection/sway or loading stopped by judges
Colorado State University, Fort Collins	11.5	Excessive deflection/sway or loading stopped by judges
South Dakota School of Mines and Technology	None	
Colorado School of Mines	None	

### Construction Speed

Full Name	Time (minutes)	Rank
South Dakota School of Mines and Technology	10.68	1
Colorado School of Mines	23.78	2
Colorado Mesa University	197.50	NR
United States Air Force Academy	32.97	NR
Colorado State University, Fort Collins	41.08	NR

### Lightness

Full Name	Weight (lbs)	Rank
South Dakota School of Mines and Technology	201.4	1
Colorado School of Mines	399.1	2
Colorado Mesa University	321.6	NR
United States Air Force Academy	193.7	NR
Colorado State University, Fort Collins	204.5	NR

### Aesthetics

Full Name	Score	Rank
Colorado School of Mines	12.33	1
Colorado Mesa University	12.17	2
Colorado State University, Fort Collins	11.83	3
South Dakota School of Mines and Technology	11.67	4
United States Air Force Academy	9.83	5

### Stiffness

Full Name	Agg D (in)	Rank
South Dakota School of Mines and Technology	1.66	1
Colorado School of Mines	3.18	2
Colorado Mesa University	9.92	NR
United States Air Force Academy	6.73	NR
Colorado State University, Fort Collins	9.55	NR



## Cost Estimate

Full Name	Estimate	Rank
South Dakota School of Mines and Technology	\$ 203,670.52	1
Colorado School of Mines	\$ 4,559,165.59	2
Colorado Mesa University	\$ 123,202,466.36	NR
United States Air Force Academy	\$ 29,655,115.34	NR
Colorado State University, Fort Collins	\$ 41,742,001.62	NR

## Economy

Full Name	Cc	Rank
South Dakota School of Mines and Technology	\$ 6,147,500.00	1
Colorado School of Mines	\$ 9,100,833.33	2
Colorado Mesa University	\$ 116,375,000.00	NR
United States Air Force Academy	\$ 20,192,500.00	NR
Colorado State University, Fort Collins	\$ 21,229,166.67	NR

## Efficiency

Full Name	Cs	Rank
South Dakota School of Mines and Technology	\$ 5,388,611.74	1
Colorado School of Mines	\$ 11,449,037.26	2
Colorado Mesa University	\$ 38,512,916.36	NR
United States Air Force Academy	\$ 29,273,806.15	NR
Colorado State University, Fort Collins	\$ 37,012,834.95	NR

## Overall

Full Name	Cc + Cs	Rank
South Dakota School of Mines and Technology	\$ 11,536,111.74	1
Colorado School of Mines	\$ 20,549,870.59	2
Colorado Mesa University	\$ 154,887,916.36	NR
United States Air Force Academy	\$ 49,466,306.15	NR
Colorado State University, Fort Collins	\$ 58,242,001.62	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Southeast</b>
<b>Location:</b>	<b>Jacksonville, Florida</b>
<b>Date:</b>	<b>Friday, March 24, 2023</b>
<b>Die Roll Result:</b>	<b>6</b>

### Not Ranked

Full Name	Ineligibility	Reason
Polytechnic University of Puerto Rico	5	Judges deem the bridge unsafe to compete for any reason
Florida International University	11.5	Excessive deflection/sway or loading stopped by judges
University of Central Florida	11.5	Excessive deflection/sway or loading stopped by judges
University of South Florida	11.5	Excessive deflection/sway or loading stopped by judges
FAMU-FSU College of Engineering	10.8.2	Construction Time Limit Exceeded. 45 minutes
University of Georgia	10.8.2	Construction Time Limit Exceeded. 45 minutes
Georgia Institute of Technology	None	
Georgia Southern University	None	
Kennesaw State University	None	
University of Florida	None	
University of Puerto Rico, Mayagüez	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Kennesaw State University	8.45	1
University of Florida	10.25	2
University of Puerto Rico, Mayagüez	18.45	3
Georgia Institute of Technology	22.40	4
Georgia Southern University	203.25	5
FAMU-FSU College of Engineering	9999.00	NR
Florida International University	198.25	NR
University of Central Florida	19.33	NR
University of Georgia	9999.00	NR
University of South Florida	190.25	NR
Polytechnic University of Puerto Rico	24.50	NR

### Lightness

Full Name	Weight (lbs)	Rank
Kennesaw State University	231.1	1
Georgia Southern University	241.8	2
University of Florida	246.2	3
University of Puerto Rico, Mayagüez	262.3	4
Georgia Institute of Technology	361.7	5

FAMU-FSU College of Engineering	499.4	NR
Florida International University	524.7	NR
University of Central Florida	218.0	NR
University of Georgia	1262.0	NR
University of South Florida	278.8	NR
Polytechnic University of Puerto Rico	999.0	NR

## Aesthetics

Full Name	Score	Rank
Polytechnic University of Puerto Rico	0.00	-1
University of Puerto Rico, Mayagüez	12.50	1
University of Central Florida	12.33	2
Georgia Southern University	11.83	3
Florida International University	11.50	4
FAMU-FSU College of Engineering	10.17	5
University of Florida	9.83	6
Kennesaw State University	9.67	7
Georgia Institute of Technology	8.50	8
University of South Florida	8.00	9
University of Georgia	6.33	10

## Stiffness

Full Name	Agg D (in)	Rank
University of Florida	0.92	1
University of Puerto Rico, Mayagüez	1.17	2
Kennesaw State University	1.53	3
Georgia Institute of Technology	2.05	4
Georgia Southern University	3.59	5
FAMU-FSU College of Engineering	0.00	NR
Florida International University	8.03	NR
University of Central Florida	0.00	NR
University of Georgia	0.00	NR
University of South Florida	8.26	NR
Polytechnic University of Puerto Rico	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
Georgia Institute of Technology	\$ 507,385.38	1
Kennesaw State University	\$ 1,050,085.34	2
University of Florida	\$ 1,111,750.42	3
University of Puerto Rico, Mayagüez	\$ 1,991,008.87	4
Georgia Southern University	\$ 17,386,883,346.20	5
FAMU-FSU College of Engineering	\$ 4,983,255,159.12	NR
Florida International University	\$ 128,798,988.52	NR
University of Central Florida	\$ 2,390,033.26	NR
University of Georgia	\$ 5,908,030,462.15	NR
University of South Florida	\$ 124,308,595.29	NR
Polytechnic University of Puerto Rico	\$ 17,524,576.86	NR

## Economy

Full Name	Cc	Rank
University of Florida	\$ 3,987,500.00	1
Kennesaw State University	\$ 4,225,000.00	2
University of Puerto Rico, Mayagüez	\$ 6,855,000.00	3
Georgia Institute of Technology	\$ 8,735,000.00	4
Georgia Southern University	\$ 113,812,500.00	5
FAMU-FSU College of Engineering	\$ 4,999,500,000.00	NR
Florida International University	\$ 116,562,500.00	NR
University of Central Florida	\$ 7,508,333.33	NR
University of Georgia	\$ 5,999,400,000.00	NR
University of South Florida	\$ 114,562,500.00	NR
Polytechnic University of Puerto Rico	\$ 10,587,500.00	NR

## Efficiency

Full Name	Cs	Rank
University of Florida	\$ 3,724,250.42	1
University of Puerto Rico, Mayagüez	\$ 4,426,988.19	2
Kennesaw State University	\$ 5,269,788.34	3
Georgia Institute of Technology	\$ 7,877,558.54	4
Georgia Southern University	\$ 11,027,123.80	5
FAMU-FSU College of Engineering	\$ 2,215,056.12	NR
Florida International University	\$ 34,953,050.16	NR
University of Central Florida	\$ 953,579.77	NR
University of Georgia	\$ 19,509,462.15	NR
University of South Florida	\$ 34,218,156.29	NR
Polytechnic University of Puerto Rico	\$ 15,937,076.86	NR

## Overall

Full Name	Cc + Cs	Rank
University of Florida	\$ 7,711,750.42	1
Kennesaw State University	\$ 9,494,788.34	2
University of Puerto Rico, Mayagüez	\$ 11,281,988.19	3
Georgia Institute of Technology	\$ 16,612,558.54	4
Georgia Southern University	\$ 124,839,623.80	5
FAMU-FSU College of Engineering	\$ 5,001,715,056.12	NR
Florida International University	\$ 151,515,550.16	NR
University of Central Florida	\$ 8,461,913.10	NR
University of Georgia	\$ 6,018,909,462.15	NR
University of South Florida	\$ 148,780,656.29	NR
Polytechnic University of Puerto Rico	\$ 26,524,576.86	NR







## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	<b>Upstate New York-Canada</b>
<b>Location:</b>	<b>Buffalo, New York</b>
<b>Date:</b>	<b>Friday, April 21, 2023</b>
<b>Die Roll Result:</b>	<b>3</b>

### Not Ranked

Full Name	Ineligibility	Reason
Rochester Institute of Technology	3	Bridge is unsuitable for intended purpose
Cornell University	11.5	Excessive deflection/sway or loading stopped by judges
Rensselaer Polytechnic Institute	11.5	Excessive deflection/sway or loading stopped by judges
SUNY Polytechnic Institute	11.5	Excessive deflection/sway or loading stopped by judges
University of Waterloo	11.2.3.7	Vertical load cannot be safely placed on bridge.
Clarkson University	None	
SUNY College of Technology at Canton	None	
United States Military Academy	None	
University at Buffalo	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University at Buffalo	11.38	1
SUNY College of Technology at Canton	15.72	2
United States Military Academy	26.20	3
Clarkson University	198.00	4
Cornell University	212.00	NR
Rensselaer Polytechnic Institute	46.27	NR
Rochester Institute of Technology	0.00	NR
SUNY Polytechnic Institute	191.25	NR
University of Waterloo	49.02	NR

### Lightness

Full Name	Weight (lbs)	Rank
SUNY College of Technology at Canton	230.2	1
University at Buffalo	241.5	2
United States Military Academy	250.5	3
Clarkson University	504.1	4
Cornell University	40.0	NR
Rensselaer Polytechnic Institute	1402.4	NR
Rochester Institute of Technology	0.0	NR
SUNY Polytechnic Institute	443.3	NR
University of Waterloo	305.2	NR

## Aesthetics

Full Name	Score	Rank
SUNY College of Technology at Canton	13.00	1
SUNY Polytechnic Institute	12.00	2
University at Buffalo	11.50	3
University of Waterloo	10.50	4
United States Military Academy	10.50	5
Clarkson University	8.50	6
Cornell University	8.50	7
Rensselaer Polytechnic Institute	6.00	8
Rochester Institute of Technology	4.50	9

## Stiffness

Full Name	Agg D (in)	Rank
University at Buffalo	0.66	1
Clarkson University	1.06	2
SUNY College of Technology at Canton	1.28	3
United States Military Academy	1.59	4
Cornell University	9.42	NR
Rensselaer Polytechnic Institute	5.93	NR
Rochester Institute of Technology	0.00	NR
SUNY Polytechnic Institute	7.91	NR
University of Waterloo	9.51	NR

## Cost Estimate

Full Name	Estimate	Rank
University at Buffalo	\$ 1,300,306.16	1
SUNY College of Technology at Canton	\$ 1,973,361.17	2
United States Military Academy	\$ 9,291,704.18	3
Clarkson University	\$ 12,529,903.14	4
Cornell University	\$ 133,058,112.54	NR
Rensselaer Polytechnic Institute	\$ 32,503,340.71	NR
Rochester Institute of Technology	\$ -	NR
SUNY Polytechnic Institute	\$ 121,941,146.52	NR
University of Waterloo	\$ 22,235,908.88	NR

## Economy

Full Name	Cc	Rank
University at Buffalo	\$ 4,478,333.33	1
SUNY College of Technology at Canton	\$ 5,836,666.67	2
United States Military Academy	\$ 9,617,500.00	3
Clarkson University	\$ 112,500,000.00	4
Cornell University	\$ 102,000,000.00	NR
Rensselaer Polytechnic Institute	\$ 19,994,166.67	NR
Rochester Institute of Technology	\$ 0.00	NR
SUNY Polytechnic Institute	\$ 114,812,500.00	NR
University of Waterloo	\$ 20,419,166.67	NR



## Efficiency

Full Name	Cs	Rank
University at Buffalo	\$ 2,967,415.83	1
SUNY College of Technology at Canton	\$ 4,574,647.57	2
Clarkson University	\$ 5,180,195.82	3
United States Military Academy	\$ 5,605,624.18	4
Cornell University	\$ 36,005,000.00	NR
Rensselaer Polytechnic Institute	\$ 30,974,223.58	NR
Rochester Institute of Technology	\$ 0.00	NR
SUNY Polytechnic Institute	\$ 34,211,567.82	NR
University of Waterloo	\$ 37,929,526.45	NR

## Overall

Full Name	Cc + Cs	Rank
University at Buffalo	\$ 7,445,749.16	1
SUNY College of Technology at Canton	\$ 10,411,314.23	2
United States Military Academy	\$ 15,223,124.18	3
Clarkson University	\$ 117,680,195.82	4
Cornell University	\$ 138,005,000.00	NR
Rensselaer Polytechnic Institute	\$ 50,968,390.25	NR
Rochester Institute of Technology	\$ 0.00	NR
SUNY Polytechnic Institute	\$ 149,024,067.82	NR
University of Waterloo	\$ 58,348,693.12	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Virginias
<b>Location:</b>	Huntington, West Virginia
<b>Date:</b>	Saturday, April 15, 2023
<b>Die Roll Result:</b>	1

### Not Ranked

Full Name	Ineligibility	Reason
Virginia Military Institute	9.3	Excessive dimensional violation
West Virginia University	10.8.2	Construction Time Limit Exceeded. 45 minutes
James Madison University	10.8.2	Construction Time Limit Exceeded. 45 minutes
Liberty University	None	
Virginia Tech	None	
Old Dominion University	None	

### Construction Speed

Full Name	Time (minutes)	Rank
Virginia Tech	16.12	1
Liberty University	20.62	2
Old Dominion University	201.97	3
Virginia Military Institute	103.13	NR
West Virginia University	9999.00	NR
James Madison University	9999.00	NR

### Lightness

Full Name	Weight (lbs)	Rank
Virginia Tech	470.8	1
Liberty University	607.2	2
Old Dominion University	644.4	3
Virginia Military Institute	325.4	NR
West Virginia University	920.0	NR
James Madison University	384.9	NR

### Aesthetics

Full Name	Score	Rank
West Virginia University	0.00	-1
Virginia Tech	13.67	1
Liberty University	11.67	2
James Madison University	11.33	3
Old Dominion University	9.00	4
Virginia Military Institute	4.67	5

## Stiffness

Full Name	Agg D (in)	Rank
Virginia Tech	0.76	1
Old Dominion University	2.99	2
Liberty University	3.01	3
Virginia Military Institute	0.00	NR
West Virginia University	0.00	NR
James Madison University	5.55	NR

## Cost Estimate

Full Name	Estimate	Rank
Virginia Tech	\$ 206,772.23	1
Liberty University	\$ 9,735,527.69	2
Old Dominion University	\$ 53,868,477.43	3
Virginia Military Institute	\$ 18,644,325.28	NR
West Virginia University	\$ 5,799,733,397.00	NR
James Madison University	\$ 6,003,392,144.88	NR

## Economy

Full Name	Cc	Rank
Virginia Tech	\$ 6,109,166.67	1
Liberty University	\$ 7,984,166.67	2
Old Dominion University	\$ 60,805,000.00	3
Virginia Military Institute	\$ 35,630,000.00	NR
West Virginia University	\$ 5,999,400,000.00	NR
James Madison University	\$ 6,003,400,000.00	NR

## Efficiency

Full Name	Cs	Rank
Virginia Tech	\$ 3,535,216.56	1
Old Dominion University	\$ 11,813,477.43	2
Liberty University	\$ 12,280,305.64	3
Virginia Military Institute	\$ 1,264,325.28	NR
West Virginia University	\$ 2,300,000.00	NR
James Madison University	\$ 27,992,144.88	NR

## Overall

Full Name	Cc + Cs	Rank
Virginia Tech	\$ 9,644,383.23	1
Liberty University	\$ 20,264,472.31	2
Old Dominion University	\$ 72,618,477.43	3
Virginia Military Institute	\$ 36,894,325.28	NR
West Virginia University	\$ 6,001,700,000.00	NR
James Madison University	\$ 6,031,392,144.88	NR



## Student Steel Bridge Competition - Category Ranking

<b>Competition:</b>	Western Great Lakes
<b>Location:</b>	Duluth, Minnesota
<b>Date:</b>	Saturday, April 15, 2023
<b>Die Roll Result:</b>	6

### Not Ranked

Full Name	Ineligibility	Reason
University of St. Thomas	9.3	Excessive dimensional violation
Bradley University	11.5	Excessive deflection/sway or loading stopped by judges
University of Minnesota, Twin Cities	11.5	Excessive deflection/sway or loading stopped by judges
University of Illinois at Chicago	11.5	Excessive deflection/sway or loading stopped by judges
North Dakota State University	11.5	Excessive deflection/sway or loading stopped by judges
Illinois Institute of Technology	11.5	Excessive deflection/sway or loading stopped by judges
University of Wisconsin, Madison	11.5	Excessive deflection/sway or loading stopped by judges
Marquette University	11.5	Excessive deflection/sway or loading stopped by judges
University of North Dakota	None	
University of Minnesota, Duluth	None	
University of Illinois at Urbana-Champaign	None	
University of Wisconsin, Platteville	None	
Lakehead University	None	
Milwaukee School of Engineering	None	

### Construction Speed

Full Name	Time (minutes)	Rank
University of North Dakota	14.85	1
University of Illinois at Urbana-Champaign	19.38	2
University of Minnesota, Duluth	20.35	3
University of Wisconsin, Platteville	20.38	4
Lakehead University	28.13	5
Milwaukee School of Engineering	28.90	6
Bradley University	188.75	NR
University of Minnesota, Twin Cities	26.90	NR
University of Illinois at Chicago	32.87	NR
North Dakota State University	24.45	NR
Illinois Institute of Technology	200.00	NR
University of Wisconsin, Madison	28.78	NR
Marquette University	29.93	NR
University of St. Thomas	189.50	NR

## Lightness

Full Name	Weight (lbs)	Rank
University of North Dakota	330.6	1
University of Wisconsin, Platteville	360.8	2
University of Minnesota, Duluth	468.2	3
University of Illinois at Urbana-Champaign	558.0	4
Milwaukee School of Engineering	589.6	5
Lakehead University	619.7	6
Bradley University	790.1	NR
University of Minnesota, Twin Cities	221.4	NR
University of Illinois at Chicago	414.2	NR
North Dakota State University	207.6	NR
Illinois Institute of Technology	458.3	NR
University of Wisconsin, Madison	260.6	NR
Marquette University	606.5	NR
University of St. Thomas	904.6	NR

## Aesthetics

Full Name	Score	Rank
University of Wisconsin, Platteville	13.80	1
Lakehead University	13.80	2
University of Minnesota, Duluth	13.60	3
University of North Dakota	13.20	4
University of Illinois at Chicago	12.60	5
University of Wisconsin, Madison	12.40	6
University of Minnesota, Twin Cities	12.40	7
University of St. Thomas	11.60	8
University of Illinois at Urbana-Champaign	11.20	9
Marquette University	10.80	10
North Dakota State University	10.40	11
Milwaukee School of Engineering	10.00	12
Bradley University	9.60	13
Illinois Institute of Technology	8.80	14

## Stiffness

Full Name	Agg D (in)	Rank
University of Wisconsin, Platteville	0.49	1
University of Minnesota, Duluth	0.63	2
Lakehead University	0.72	3
Milwaukee School of Engineering	0.89	4
University of Illinois at Urbana-Champaign	0.97	5
University of North Dakota	2.34	6
Bradley University	3.05	NR
University of Minnesota, Twin Cities	4.83	NR
University of Illinois at Chicago	3.01	NR
North Dakota State University	2.56	NR
Illinois Institute of Technology	2.67	NR
University of Wisconsin, Madison	7.68	NR
Marquette University	0.00	NR
University of St. Thomas	0.00	NR

## Cost Estimate

Full Name	Estimate	Rank
University of Minnesota, Duluth	\$ 239,243.90	1
University of Illinois at Urbana-Champaign	\$ 498,985.46	2
University of Wisconsin, Platteville	\$ 519,951.29	3
Milwaukee School of Engineering	\$ 3,681,249.09	4
University of North Dakota	\$ 4,011,412.07	5
Lakehead University	\$ 4,252,051.99	6
Bradley University	\$ 102,616,803.65	NR
University of Minnesota, Twin Cities	\$ 18,538,822.78	NR
University of Illinois at Chicago	\$ 5,933,509.26	NR
North Dakota State University	\$ 1,163,197.05	NR
Illinois Institute of Technology	\$ 98,594,171.62	NR
University of Wisconsin, Madison	\$ 27,427,801.14	NR
Marquette University	\$ 454,227.17	NR
University of St. Thomas	\$ 32,991,493.31	NR

## Economy

Full Name	Cc	Rank
University of Minnesota, Duluth	\$ 7,990,000.00	1
University of North Dakota	\$ 8,472,500.00	2
University of Illinois at Urbana-Champaign	\$ 10,492,500.00	3
University of Wisconsin, Platteville	\$ 11,705,000.00	4
Milwaukee School of Engineering	\$ 14,627,500.00	5
Lakehead University	\$ 16,180,000.00	6
Bradley University	\$ 114,187,500.00	NR
University of Minnesota, Twin Cities	\$ 18,390,000.00	NR
University of Illinois at Chicago	\$ 21,095,000.00	NR
North Dakota State University	\$ 13,882,500.00	NR
Illinois Institute of Technology	\$ 113,000,000.00	NR
University of Wisconsin, Madison	\$ 19,082,500.00	NR
Marquette University	\$ 13,091,666.67	NR
University of St. Thomas	\$ 110,375,000.00	NR

## Efficiency

Full Name	Cs	Rank
University of Wisconsin, Platteville	\$ 3,769,396.57	1
University of Minnesota, Duluth	\$ 3,780,756.10	2
Lakehead University	\$ 4,846,403.14	3
University of Illinois at Urbana-Champaign	\$ 6,434,386.46	4
Milwaukee School of Engineering	\$ 6,691,250.91	5
University of North Dakota	\$ 8,495,263.58	6
Bradley University	\$ 21,255,303.65	NR
University of Minnesota, Twin Cities	\$ 24,263,775.84	NR
University of Illinois at Chicago	\$ 20,402,684.26	NR
North Dakota State University	\$ 7,812,259.49	NR
Illinois Institute of Technology	\$ 9,147,596.62	NR
University of Wisconsin, Madison	\$ 32,314,483.19	NR
Marquette University	\$ 5,999,881.88	NR
University of St. Thomas	\$ 5,504,690.10	NR

**Overall**

<b>Full Name</b>	<b>Cc + Cs</b>	<b>Rank</b>
University of Minnesota, Duluth	\$ 11,770,756.10	1
University of Wisconsin, Platteville	\$ 15,474,396.57	2
University of Illinois at Urbana-Champaign	\$ 16,926,886.46	3
University of North Dakota	\$ 16,967,763.58	4
Lakehead University	\$ 21,026,403.14	5
Milwaukee School of Engineering	\$ 21,318,750.91	6
Bradley University	\$ 135,442,803.65	NR
University of Minnesota, Twin Cities	\$ 42,653,775.84	NR
University of Illinois at Chicago	\$ 41,497,684.26	NR
North Dakota State University	\$ 21,694,759.49	NR
Illinois Institute of Technology	\$ 122,147,596.62	NR
University of Wisconsin, Madison	\$ 51,396,983.19	NR
Marquette University	\$ 19,091,548.55	NR
University of St. Thomas	\$ 115,879,690.10	NR