

NCHEMS Comparison Group Selection Service (CGSS)

Target Institution: University of Northern Colorado

Overview

The NCHEMS Comparison Group Selection Service (CGSS) is designed to aid institutions in selecting a group of institutions which are similar in mission to be used in comparative data analyses. CGSS has been in use at NCHEMS since 1982 and has been used by hundreds of institutions.

CGSS consists of two primary components. The first is a large database containing indicator variables on each of more than 7,000 higher education institutions. This database is constructed from data files derived from the various surveys which make up the Integrated Postsecondary Education Data System (IPEDS) survey system administered by the National Center for Education Statistics (NCES, a part of the U.S. Department of Education in Washington, D.C.). The indicator database contains variables covering institutional characteristics, faculty, finance, degrees awarded, academic programs, enrollments, research and other expenditures, and other miscellaneous data.

The second component of the CGSS is a set of algorithms designed to condense the 7,000+ institutions in the indicator database down to a useable list of potential peers for the target institution. These algorithms use a set of selected criteria to determine which institutions appear on the possible comparison institution list and their associated relative rankings within the list. Depending on the selection criteria described below, this list can be 100 institutions or more, with each institution assigned a ranking based on the criteria used. Ultimately, it is the responsibility of the target institution to choose the final list of institutions to become the actual comparison group.

Part I: Selection Criteria

The selection criteria work as a filtering mechanism to eliminate characteristically dissimilar institutions from the institution comparison list. An institution that does not satisfy any one of the selection criteria is excluded from further consideration as a comparison institution. For the University of Northern Colorado, selection criteria included institution sector (public 4-year), Land Grant institution (No), Medical school (No), Historically Black College or University (No), and 2018 Basic Carnegie Classification (Doctoral/Professional Universities in addition to Doctoral Universities: High Research Activity, Master's Colleges & Universities: Larger Programs, and Master's Colleges & Universities: Medium Programs). Institutions not meeting any one of the previous criteria were eliminated from consideration as potential peers.

Part II: Weighting Criteria

Once the universe of possible comparison institutions has been reduced by the selection criteria specified in Part I, the Weighting Criteria can be used to rank the remaining institutions from most similar to most dissimilar with respect to the weighting criteria (variables) selected.

There are two ways that the Weighting Criteria affect the rankings of possible comparison institutions. The first way is through the specification of a range for each variable. The range for each weighting variable is set according to the target institution value. An institution which falls within the set range of values is not affected by that variable in terms of its order/placement on the comparison institution listing. An institution whose value for a particular variable falls outside of the range specified will accumulate “distance points” and will be moved lower in the listing than an institution which falls within the range.

The second way that weighting variables have an effect is through the level of importance assigned. The number of distance points assigned to an institution for being outside the range of values for a given weighting variable depends on the level of importance specified for that variable. An institution which falls outside of the range on a variable which has been assigned “Very Important” will receive 100 distance points and an institution which falls outside the range on a variable which has been assigned “Important” will receive 50 distance points. Institutions who fall within range receive 0 distance points. Since institutions are ranked in ascending order by the number of distance points they accumulate, institutions with a higher accumulation of points across the weighting variables selected will be viewed as less similar than the target institution and appear lower on the list.

The weighting criteria selected for the University of Northern Colorado included the following:

Total Annual FTE Students, Very Important (range 7,500-15,000)
Percent Part-Time Headcount, Important (range 10-40)
Percent Minority Headcount, Important (range 10-45)
Percent International Headcount, Important (range 0-6.4)
Percent Masters Awards, Very Important (range 15-40)
Percent Doctorate Awards, Very Important (range >0-15)
Number of Certificate Programs, Very Important (=0)
Number of Associates Programs, Very Important (=0)
Number of Doctoral Programs, Very Important (range <15)
Percent Health Science Degrees, Very Important (range 5-20)
Percent Engineering Degrees, Very Important (range <5)
Percent Business Degrees, Important (range <15)
Percent Education Degrees, Important (range 15-35)
Percent Visual and Performing Arts Degrees, Very Important (range 3-11)
Research/Instruction Expenditures Ratio, Very Important (range 1-8 percent)
Endowment per FTES, Important (\$4,000-\$12,000)
Percent of Undergraduates Awarded Pell Grants, Very Important (range 25-35)

Part III: Final Adjustments

In this final stage, any additional adjustments can be made to the list of peers generated by the selection and weighting criteria used. Institutions can be excluded due to known special characteristics not available/included in the selection criteria or institutions can be added that didn't make the list but who have traditionally been included as peers due to their locality or other known characteristics that support their inclusion.

Using the above selection and weighting criteria for the University of Northern Colorado resulted in an initial list of 79 peer institutions with distance scores ranging from 200-900. Three Colorado institutions that did not make it through the initial selection process were added, including Colorado Mesa University (distance score 550), Colorado State University-Pueblo (distance score 700), and Metropolitan State University of Denver (distance score 750). The University of North Texas (distance score 800) and Binghamton University (distance score 650) were also added due to their previous selection/inclusion in former peer analyses.

After review by the Salary Equity Committee, the determination was made to include all institutions from the NCHEMS analysis with distance scores of 600 or less in our new peer group recommendation. This criteria resulted in a peer group of 51 institutions which will provide a sufficient amount of data to have matches for most all faculty positions and is also large enough to reduce volatility in the data created by smaller peer groups.

Final list

The list presented here was adopted by [Faculty Senate on March 22nd, 2021](#) and subsequently approved by President Feinstein.

Prior Peer	Distance Score	Institution	Control	City Size	Region
	0	University of Northern Colorado	Public 4-Year	City Mid-size	Rocky Mountains
	200	Stephen F Austin State University	Public 4-Year	Town Remote	Southwest
	200	Towson University	Public 4-Year	City Small	Mid East
Y	300	Ball State University	Public 4-Year	City Small	Great Lakes
Y	300	Bowling Green State University-Main Campus	Public 4-Year	Town Fringe	Great Lakes
	300	Eastern Michigan University	Public 4-Year	Suburb Large	Great Lakes
Y	300	Illinois State University	Public 4-Year	Suburb Mid-size	Great Lakes
	300	Sam Houston State University	Public 4-Year	Town Distant	Southwest
	300	University of West Georgia	Public 4-Year	Town Fringe	Southeast
	350	Kent State University at Kent	Public 4-Year	Suburb Large	Great Lakes
	350	Texas Woman's University	Public 4-Year	City Mid-size	Southwest
	350	Valdosta State University	Public 4-Year	City Small	Southeast
	400	Middle Tennessee State University	Public 4-Year	City Mid-size	Southeast
	400	Northern Kentucky University	Public 4-Year	Suburb Large	Southeast
	400	Rutgers University-Camden	Public 4-Year	City Small	Mid East
	400	San Diego State University	Public 4-Year	City Large	Far West
	400	Texas A & M University-Corpus Christi	Public 4-Year	City Large	Southwest
	400	University of Central Arkansas	Public 4-Year	City Small	Southeast
	400	University of Nebraska at Omaha	Public 4-Year	City Large	Plains
	400	University of North Carolina Wilmington	Public 4-Year	City Mid-size	Southeast
Y	400	University of North Carolina at Greensboro	Public 4-Year	City Large	Southeast
Y	450	Indiana University of Pennsylvania-Main Campus	Public 4-Year	Town Distant	Mid East
	450	Lamar University	Public 4-Year	City Mid-size	Southwest
	450	Missouri State University-Springfield	Public 4-Year	City Mid-size	Plains
	450	Texas State University	Public 4-Year	Suburb Small	Southwest
	450	The University of Tennessee-Chattanooga	Public 4-Year	City Mid-size	Southeast

Prior Peer	Distance Score	Institution	Control	City Size	Region
	450	The University of Texas at Tyler	Public 4-Year	City Mid-size	Southwest
	450	University of Colorado Colorado Springs	Public 4-Year	City Large	Rocky Mountains
	500	Cleveland State University	Public 4-Year	City Large	Great Lakes
Y	500	Northern Illinois University	Public 4-Year	Suburb Small	Great Lakes
	500	University of Alabama in Huntsville	Public 4-Year	City Mid-size	Southeast
	500	University of Memphis	Public 4-Year	City Large	Southeast
	500	University of Missouri-St Louis	Public 4-Year	Suburb Large	Plains
	500	University of North Florida	Public 4-Year	City Large	Southeast
	550	California State University-Fresno	Public 4-Year	City Large	Far West
	550	Montclair State University	Public 4-Year	Suburb Large	Mid East
	550	Texas A & M University-Commerce	Public 4-Year	Town Distant	Southwest
	550	The University of Montana	Public 4-Year	City Small	Rocky Mountains
	550	University of Louisiana at Lafayette	Public 4-Year	City Mid-size	Southeast
	550	University of Maryland-Baltimore County	Public 4-Year	Suburb Large	Mid East
	550	Western Kentucky University	Public 4-Year	City Small	Southeast
	550	Colorado Mesa University	Public 4-Year	City Small	Rocky Mountains
	600	CUNY City College	Public 4-Year	City Large	Mid East
	600	Louisiana Tech University	Public 4-Year	Town Distant	Southeast
	600	Old Dominion University	Public 4-Year	City Mid-size	Southeast
	600	Portland State University	Public 4-Year	City Large	Far West
	600	Tennessee Technological University	Public 4-Year	Town Remote	Southeast
	600	University of Louisiana at Monroe	Public 4-Year	City Small	Southeast
	600	University of Massachusetts-Boston	Public 4-Year	City Large	New England
	600	University of Michigan-Flint	Public 4-Year	City Small	Great Lakes
	600	Western Michigan University	Public 4-Year	City Small	Great Lakes
	600	Wichita State University	Public 4-Year	City Large	Plains