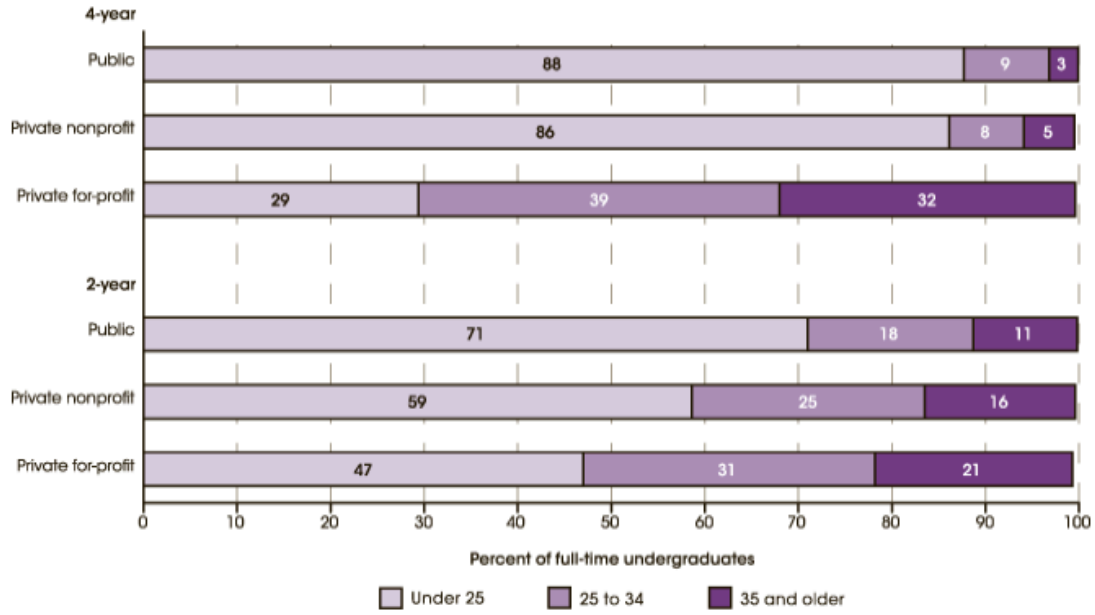
Data Sources for American Higher Education

For some unknown reason, most of us in postsecondary education live in a world filled with myths. Therefore, it is important that we closely examine all of our beliefs and verify them against the best data available and, even then, approach the data with some skepticism.

For example, a common statement is that most college students today are nontraditional, meaning, I would presume, that they are older and have some prior college experience. Below are data from the National Center for Education Statistics and, as you can see, the vast majority of college students—78%—are 20 years old or younger. For four-year schools, the number is 88% and for two-year schools it is 71%.

Figure 1. Percentage distribution of full-time undergraduate enrollment in degree-granting postsecondary institutions, by institutional level and control and student age: Fall 2011



NOTE: Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Detail may not sum to totals because of rounding and the exclusion of "age unknown" students.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2012, Enrollment component. See *Digest of Education Statistics 2013*, table 303.50.

Source: http://nces.ed.gov/programs/coe/indicator_csb.asp

Another statement that is common in Florida is that our system has one of the best graduation rates in the country (as a system). Below is a snapshot for the 2007 cohort entering a State University System institution, reported

as Student Achievement Measures. As you can see, we have considerable room for improvement in terms of graduation rates.

State	Total Completion Rate	Starting Institution	Different Four-year Institution	Different Two-year Institution	Still Enrolled	Not Enrolled
Nat'l	60.57%	48.65%	8.73%	3.20%	16.01%	23.42%
FL	56.16%	46.32%	7.02%	2.81%	15.16%	28.68%

Source: http://nscresearchcenter.org/wp-content/uploads/NSC_Signature_Report_4-StateLevel.pdf

Basic Higher Education Resources

Let's begin with the basic resources that anyone interested in higher education data should be familiar with.

National Center for Education Statistics (NCES). Primary federal entity for collecting and analyzing data related to education
http://www.nces.ed.gov/

IPEDS—Integrated Postsecondary Education Data System. Primary source for data on colleges, universities, and technical and vocational postsecondary institutions in the United States, from NCES
http://nces.ed.gov/IPEDS/

Digest of Education Statistics. Compilation of statistical information covering American education from prekindergarten through graduate school
http://nces.ed.gov/programs/digest/

National Report Card on Higher Education. Biennial report card measuring states' achievement and improvement in higher education
http://measuringup2008.highereducation.org/

Historically Black Colleges and Universities. Historical data on historically black colleges and universities (HBCUs) for the years 1976 to 1994, from NCES
http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=96902

NEA Almanac of Higher Education. Information on faculty salaries and benefits, economic conditions in the states, faculty workload, bargaining trends, and information on non-faculty professionals on campus
http://www.nea.org/home/1819.htm

Campus Security Data Analysis. Data on campus crime from the Office of Postsecondary Education of the U.S. Department of Education
http://ope.ed.gov/security/

Open Doors (Institute of International Education). Information resource on international students and scholars studying or teaching at higher education institutions in the United States and U.S. students studying abroad for academic credit at their home colleges or universities
http://www.iie.org/Research-and-Publications/Open-Doors

State Postsecondary Education Structures Handbook. Statistical and narrative profiles of each state's higher education structure, compiled by the Education Commission of the States
http://diginole.lib.fsu.edu/ecs

National Longitudinal Survey of Freshmen. Designed to provide comprehensive data to test different theoretical explanations for minority underperformance in college
http://nlsf.princeton.edu/

Grapevine. Annual compilation of data on state fiscal support for higher education
http://grapevine.illinoisstate.edu/

Delta Cost Project (American Institutes for Research). Data analysis on spending in higher education
http://www.deltacostproject.org/

Council of Graduate Schools. Information, data analysis, trends, and best practices in graduate education
http://www.cgsnet.org/

Condition of Education. Annual report on indicators of important developments and trends in U.S. education, compiled by NCES
http://nces.ed.gov/programs/coe/index.asp

Data.gov. Data from U.S. government statistical reports
http://www.data.gov/

Statistical Resources on the Web—Education. Meta-site providing links to many sources of education data on the web
http://www.lib.umich.edu/govdocs/steduc.html

U.S. Census Bureau—Education. Census data on educational attainment, field of study, school enrollment, and school costs
http://www.census.gov/hhes/socdemo/education/

Science and Engineering Indicators 2014
http://www.nsf.gov/statistics/seind14/

NSF Academic Institution Profiles
http://ncsesdata.nsf.gov/profiles/

WebCASPAR. WebCASPAR database provides easy access to a large body of statistical data resources for science and engineering (S&E) at U.S. academic institutions. WebCASPAR emphasizes S&E, but its data resources also provide information on non-S&E fields and higher education in general.
https://ncsesdata.nsf.gov/webcaspar/

Web of Knowledge. Available in most libraries as The Web of Science
http://wokinfo.com/

Student Indebtedness. Review of student indebtedness
http://projectonstudentdebt.org/

Delaware Study of Faculty Workload
http://www.udel.edu/IR/cost/

National Research Council
http://www.nap.edu/rdp/#download

The Center for Measuring University Performance
http://mup.asu.edu/research.html

NSSE—The National Survey of Student Engagement
http://nsse.iub.edu/

COACHE—The Collaborative on Academic Careers in Higher Education
http://isites.harvard.edu/icb/icb.do?keyword=coache

Data on Salaries
http://www.payscale.com/

The National Center for Education Statistics (NCES) regularly issues reports of considerable value to policy makers and academic administrators. A recent one focuses on STEM students—*STEM Attrition: College Students' Paths Into and Out of STEM Fields.*
http://nces.ed.gov/pubs2014/2014001rev.pdf

NCES not only has a huge amount of data on education in the United States, but the site offers statistical tools to assist users in analyzing data. A powerful and easy-to-use tool is POWERSTATS, which includes a tutorial to assist the user.

The National Student Clearinghouse operates the National Student Clearinghouse Research Center, which analyzes data and issues very interesting reports. The reports follow students through their postsecondary careers across institutions for those students who change institutions.
http://nscresearchcenter.org/

College Measures.Org is another interesting site. It is a joint venture of American Institutes for Research and Matrix Knowledge Group, but I have no other information on the group or how the data are collected.
http://collegemeasures.org/

A very interesting blog to follow is Higher Ed Data Stories. The author is Jon Boeckenstedt, Vice President for Enrollment Management at a major university, but he developed the material on his own.
http://highereddatastories.blogspot.com/2013/10/tuition-net-price-and-aid.html

State University System. Almost every state higher education organization has a website with data. This is the one for the State University System.
http://www.flbog.edu/resources/iud/

Southern Regional Education Board is also a good data source for Southern schools.

http://www.sreb.org/

Websites That Organize Information

The National Center for Higher Education Management Systems (NCHEMS) is a very good site.

http://www.higheredinfo.org/resources.php

The State Higher Education Executive Officers also offers data and information.

http://www.sheeo.org/policy-issues/data-and-information

The Higher Education Research Institute (HERI) at UCLA is home to the Cooperative Institutional Research Program. This is the annual survey of first-time college students that covers a wide range of questions and is always an interesting read.

http://www.heri.ucla.edu/

The Center on Education and the Workforce at Georgetown University is another valuable site with important research publications that are available online. As the title indicates, the emphasis is on employment and education.

http://cew.georgetown.edu/

The President's College Scorecard is part of a federal effort to give colleges and universities a score that may affect their federal financial aid funding (Title IV). These sites will become much more important as the federal government develops a new rating system that may determine whether or not schools can access Pell grants.

http://collegecost.ed.gov/scorecard/index.aspx

The President's College Scorecard site is linked to the College Affordability and Transparency Center, a site on college costs and transparency, which includes a "Cost Calculator" to help families estimate the actual cost of attending college.

http://collegecost.ed.gov/

Higher Education Periodicals

Inside Higher Education
http://www.insidehighered.com/#sthash.YxQwPnC4.dpbs

The Chronicle of Higher Education, especially the Facts and Figures section
http://chronicle.com/section/Home/5

The Chronicle's Facts and Figures, data on college completion
http://collegecompletion.chronicle.com/

Help for Students Deciding on a College Major

There are a number of free web resources that may help students select a major.

- My Next Move: http://www.mynextmove.org/
- O*NET OnLine: http://www.onetonline.org/
- Bureau of Labor Statistics: Occupational Outlook Handbook: http://www.bls.gov/ooh/
- Glassdoor: http://www.glassdoor.com/index.htm

The MyMajors site is free, but requires registration. This site attempts to guide students toward a major and then identifies those schools that offer the major and seem a good fit based on the student's responses to the survey questions.
http://www.mymajors.com/

Graduation and Retention Data on Individual Institutions

A few comments are in order on undergraduate retention and graduation rates, as it is important to understand a few distinctions among the various data sites.

The central official source for educational data is the National Center for Education Statistics (NCES).
http://nces.ed.gov/

NCES is the most important of all the educational data sites. Within this site, primary data for postsecondary institutions are found in the Integrated Postsecondary Education Data System (IPEDS).

http://nces.ed.gov/ipeds/

These are the data commonly reported when retention and graduation rates are discussed. The most important distinction here is that the rates reported are based on the entering cohort of first-time, full-time students, defined as those students entering in the summer who continue into the fall, as well as those students who start in the fall. First time means that this is the first postsecondary experience for these students. These data come from the Common Data Set, which is a required federal report submitted by institutions.

Another measure of retention and graduation is the Student Achievement Measure (SAM).

http://www.studentachievementmeasure.org/

This measure uses data from the National Student Clearinghouse and follows all students who enter postsecondary institutions, even if they transfer schools.

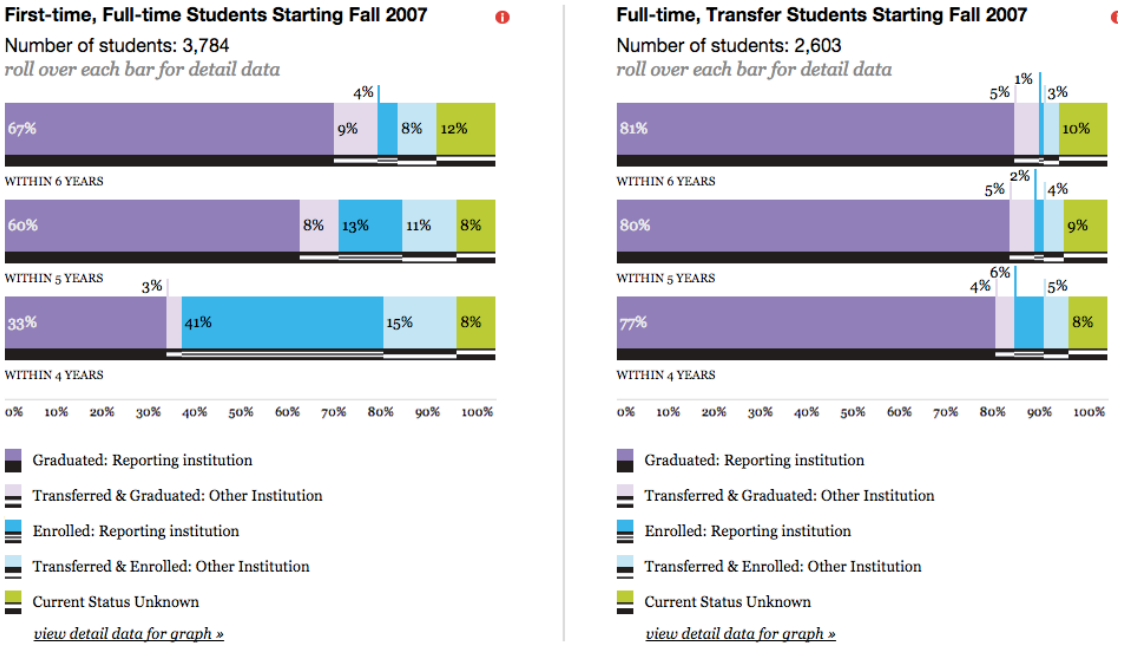
http://www.studentclearinghouse.org/

For example, if a student enters School A and two years later transfers to School B, the National Student Clearinghouse will track the student through both institutions.

The SAM data are usually reported in the format below as part of the College Portrait for an institution.

http://www.collegeportraits.org

In the following example, the IPEDS graduation rate would be 67% for the First Time at Institution, Full-Time Students Starting Fall 2007 with another 9% graduating from another institution; 4% are still enrolled at the reporting institution and 8% at another institution. This seems a richer source of information, but not all schools are reporting the SAM through using the College Portrait.



Source: http://www.studentachievementmeasure.org/. Click the "Bachelor's Model" on the top right.

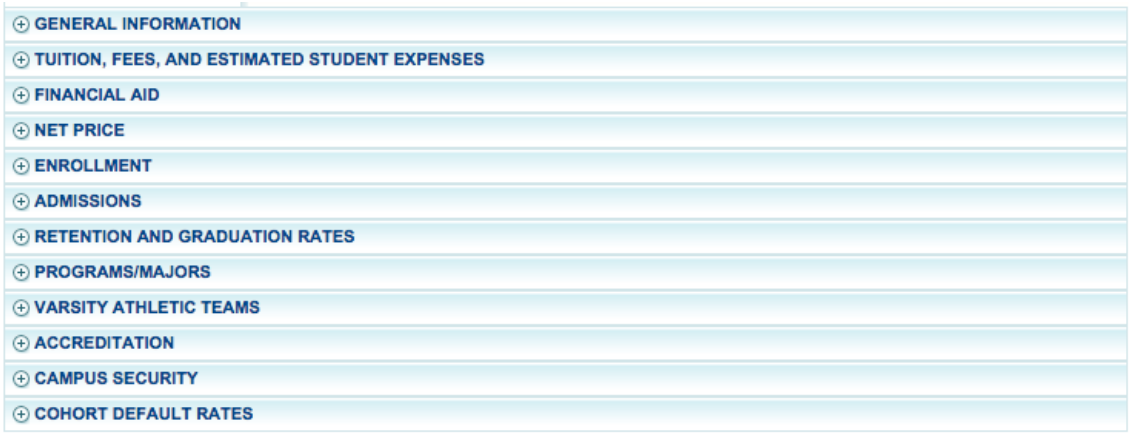
There are a very large number of websites that report data on postsecondary education and it is important to read them carefully before using the data.

Undergraduate Data

College Navigator. The best site for undergraduate data from both four-year and two-year schools is the College Navigator.

http://nces.ed.gov/collegenavigator

It is worth reading all of the reported material for a school as it contains a large amount of important information in the categories shown below.



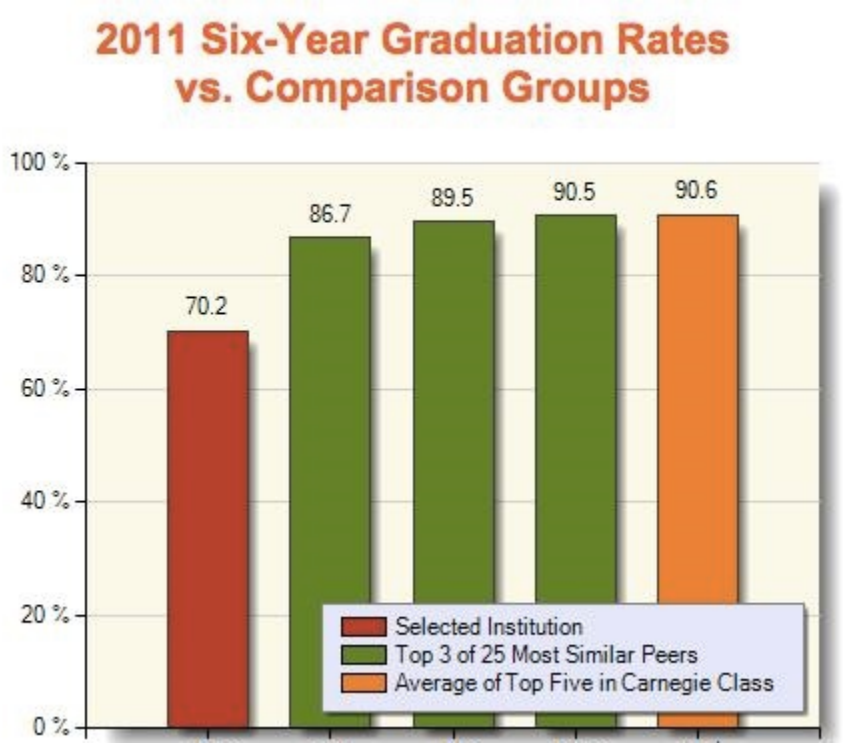
The Education Trust. Another valuable site for four-year schools is one maintained by The Education Trust, an organization that provides information on higher education with a focus on underrepresented students.

http://www.edtrust.org/

College Results Online. This site uses IPEDS data and provides several valuable options, including comparisons of retention and graduation rates for underrepresented students, as well as five-year trend lines for graduation rates. One of the most valuable options is "Similar Colleges." The site clusters 15 or more institutions, comparable to the one selected, based on numerous variables, such as student demographics, student academics including high school GPA, expenditures, and geographic setting. This allows comparisons of retention and graduation rates, as well as other variables among these institutions.

http://www.collegeresults.org/

An example is shown below.



Source: http://www.collegeresults.org/. Enter your institution of interest and click on "Graduation Rates" to compare your institution to others.

Research

Most, but not all, public four-year institutions are apparently dissatisfied with their current status with respect to research. There is near constant discussion on these campuses regarding efforts to achieve "Research I" status, a classification that is no longer used and has been replaced by RU/VH—"Research universities (very high research activity)"—by the Carnegie Foundation, the group that classifies universities largely by their mission.

http://classifications.carnegiefoundation.org/

For example, there are a number of universities that have "research" as their top priority and student success somewhere down the list. Many of these institutions graduate less than 30% of their students and an examination of their federal research funding and faculty activity strongly suggests that it is not a good use of resources to focus on achieving "Research I" status. Their region, state, and country would be much better served by focusing on student success.

Because a university's classification is based in part on research funding, it is worth pointing out that caution is necessary when interpreting how institutions report their research funding. The critical data are "Federal obligations in science, engineering, and health" and are reported in several data reports, such as NSF Institutional Profiles.

http://ncsesdata.nsf.gov/profiles/

These numbers, which come from the federal agencies listed and are audited, are the ones you should pay attention to if you are interested in an institution's research funding.

Research funding is reported as "R&D expenditures" and includes what was actually spent that year and may not match federal obligations for several reasons. First, any non-S&E funding the institution may have is included and, second, many grants are multiyear while agencies obligate the total funding the first year of the award. Finally, you should pay close attention to the actual report and see what the institution reports under "Institutional funds." For example, one university may report $500 million in R&D expenditures while another may report only $400 million but the first institution reports spending $200 million in institutional funds (its own money, not grants competitively awarded) while the second only reports $50 million. Most observers would conclude that the second institution has a larger research portfolio.