



Making Sense of Career Information

Tips for interpreting occupational projections

by Tom Austin

When seeking a new career or researching fields of study that will offer the most employment opportunities, accessing reliable career information and understanding how to interpret it are key.

The Illinois Department of Employment Security, or IDES, offers projections, wages and educational and training requirements for more than 900 occupations in Illinois. However, without proper understanding, such career information can be misinterpreted and, consequently, cause misinformed career decision making. This report offers tips on avoiding common mistakes people make when interpreting career

information, especially occupational employment projections data.

The state's employment projections reveal growth or decline trends for occupations over either a 10-year or two-year period, and they are useful for identifying employment opportunities. The state's wage data identifies occupations' hourly and annual wages at the entry, median and experienced level. Those who are transitioning careers can use wage information to identify occupations that would provide desirable income and to learn how much their earnings could increase with additional training. The educational and training requirements for occupations are also

useful for preparing for a new or different career.

While wage information and the number of job openings are important, finding an occupation that fits one's interest and that follows the course of study or training that suits one's ability and time commitment also matters. Employment projections should be used in conjunction with information on wages, career interests and occupational training, including the availability and affordability of training. When used correctly, employment projections, wage data, and training and educational requirements are invaluable information sources for career planning.

Interpreting occupational projections

Here are key pointers to remember when analyzing occupational employment projections:

Projections reflect opportunities, not actual job openings.

The average annual job openings for occupations are a popular component of employment projections. However, a common mistake users of the projections data make is interpreting average annual openings to mean actual job openings for occupations. Average annual openings do not reflect actual job openings, but rather employment opportunities for occupations. Occupations with fewer openings could be rewarding

Too often customers focus on the occupations with the most openings. While this information is important, it is not always the best use of employment projections for career decisions. When making career

decisions, people should assess their interests and then match them to occupations. In some situations, an occupation may have few openings, but that does not mean it should be excluded from consideration. Occupations with fewer openings still need people to work in those jobs, and they may match a person's interest and income needs. Fewer openings for an occupation may mean more competition for that job, but they also may mean that fewer people may choose that field since it does not offer many job opportunities. Those who only look at occupations with the most openings may miss out on an interesting and rewarding career.

Occupations with most openings ideal for new job seekers.

Occupations with the most openings are sometimes ideal for new job seekers as an entrance into the world of employment since they often require less skills and training. For example, in the 2008-2018 occupational employment projections for Illinois, food preparation and serving occupations had one of the largest

numbers of anticipated annual job openings. However, in some situations, occupations with the most openings are not entry level positions, but are career fields that have significant educational requirements. Nurses, teachers, accountants and auditors are projected to have significant growth in the 2008-2018 projections series. People making a career change or young adults seeking a career should look at a variety of information to help them make the best choice, not just occupations with the most openings.

Projections do not always reflect economic changes.

Employment projections do not predict recessions or economic booms, but those events do have an effect on employment levels. Analysts review known economic activities such as businesses' openings and layoffs, but if those activities occur after the employment projections are published, the predictions may not be as accurate in the short term. When reviewing employment projections, again, it is helpful to analyze them with additional, more current information. Over the





Keeping abreast of educational and training requirements

In addition to knowing how to analyze projections, job seekers should also keep abreast of the ever changing educational and training requirements for occupations. While educational requirements are not directly part of state and national employment projections, they are often published with the projections to help customers with their career choices. For example, the brochure “**Learn More, Earn More**” brochure is available online at <http://www.ides.illinois.gov/IDES%20Forms%20and%20Publications/LearnMoreEarnMore-en.pdf>.

The educational requirements for occupations may change over time, either by employers or by associations that govern those specialty fields. However, state and federal publications on employment projections report the latest educational requirements used by states or industry associations at the time of publishing. That means educational requirements listed in state and government publications could become temporarily dated. Once new state and national employment projections are produced, any changes in occupations’ education requirements are incorporated.

Although increased use of the Internet for state and national educational requirements should increase the likelihood of consumers accessing the latest educational requirements, it still is possible that some information could become temporarily dated between publishing cycles.

long term, the predicted employment changes may still take place even during a recession, but those changes may occur quicker or later depending on the economic changes. Employment projections take the change over the 10-year period and then average them out over that period, but sometimes the predicted change may take place early or later in the 10-year period. Major economic events should be taken into consideration when using employment projections.

New occupations are not always part of employment projections.

The economy will continue to develop new and interesting occupations, but some of those occupations may not appear specifically in employment projections until they have matured and attracted enough workers to be measured statistically. While these occupations exist, employment estimates for the occupations might not be included in official publications, or they could be part of a general or broader title at the state and local levels. For example, “energy auditors” is a new

and emerging “green” occupation, but this occupation is not listed per se in Illinois projections. Instead, it’s listed as part of a broader occupational title called “Business Operations Specialists, All Other.”

Employment projections measure demand, not supply.

Employment projections measure employers’ future demand for workers, but they do not predict how many qualified people will compete for the jobs in demand. For example, educators and administrators use projections to determine what training programs to provide. The supply of newly trained workers for a specific occupation may exceed the number of openings if too many people are placed in training for the occupation. An increase in the supply of those workers may help fill employers’ job openings, but it may also lead to increased competition for jobs in the field. This can happen to a variety of occupations. So it behooves job seekers or career changers to research the number of people training for a selected occupation when making a career choice.

For example, a recent review of help wanted ads for registered nurses in Illinois shows that employers are increasingly requiring that new candidates have a bachelor's degree in nursing, while some employers continue to accept associate degrees. However, the Bureau of Labor Statistics still lists the education requirement for nurses as an associate degree.

The occupation of physical therapist is another example in which published data for the occupation is different from current industry requirements. National and state associations changed the requirement for a physical therapist from master's degree to a doctor of physical

therapy. The Bureau of Labor Statistics's 2010-2020 Occupational Outlook Handbook lists physical therapists as needing a doctor of physical therapy. However, IDES, which updates its career information on a later schedule than the Bureau of Labor Statistics, lists a master's degree as a requirement for physical therapists in Illinois. IDES' upcoming 2010-2020 occupational projections will reflect the most current educational requirements instituted by the state of Illinois or industry associations.

To stay on top of education requirements for occupations, it is always important to research training

requirements for occupations from a variety of sources, including employment projections, industry or government associations and help wanted ads, in addition to employment projections produced by state and federal governments. More information about educational requirements for occupations can be found on the Bureau of Labor Statistics website at <http://www.bls.gov/ooh/> or in the Illinois Career Information System at <https://ilcis.intocareers.org/materials/portal/home2.html>.

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Sources for Career Information

Illinois employment projections:

http://www.ides.illinois.gov/LMI/Pages/Employment_Projections.aspx

Offers spreadsheets of occupational projections for Illinois and local workforce areas.

Illinois and local occupational wages:

http://www.ides.illinois.gov/LMI/Pages/Occupational_Employment_Statistics.aspx

Offers spreadsheets of wages for occupations in Illinois, its metro areas, economic development regions, local workforce areas and counties

Career Information System:

<https://ilcis.intocareers.org/materials/portal/home2.html>

Offers students and job seekers comprehensive career information in a reader-friendly format. Information provided includes employment projections, wages, educational requirements and job descriptions for occupations in Illinois.

National employment projections, wages and education requirements:

<http://www.bls.gov/ooh/>

Offers comprehensive national data for occupations in a reader-friendly format.

**State of Illinois
Occupational Employment Projections (Long-term)
2008-2018**

Standard Occupational Classification (SOC) Code	Title	Base Year Employment 2008	Projected Year Employment 2018	Employment Change 2008-2018		Average Annual Job Openings due to			Annual Compound Growth
				Number	Percent	Growth	Replacements	Total	
10-0000	Total, All Occupations	6,333,193	6,881,612	548,419	8.66	61,304	144,789	206,093	0.83
11-0000	Management Occupations	411,409	426,102	14,693	3.57	2,138	8,892	11,030	0.35
11-1000	Top Executives	83,711	82,533	-1,178	-1.41	40	2,406	2,446	-0.14
11-1011	Chief Executives	19,593	18,996	-597	-3.05	0	551	551	-0.31
11-1021	General and Operations Mngrs	58,798	57,817	-981	-1.67	0	1,704	1,704	-0.17
11-1031	Legislators	5,320	5,720	400	7.52	40	151	191	0.73

What do the numbers mean? *A line-by-line review of projections data* by Tom Austin

Employment projections provide key information on the number of people working in occupations and the estimated demand for future needs.

The table above is an excerpt from the state of Illinois' employment projections. Moving from left to right, the first two columns contain the Standard Occupation Classification code and the occupational title. Federal statistical agencies use the Standard Occupational Classification system to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into 840 occupations, according to the Bureau of Labor Statistics.

The next two columns reflect employment levels in the base year of the 10-year projections and the projected 10-year employment levels of that occupation or group of occupations. The employment change

is listed as both a number change and a percent change. Some occupations will have a large percent change, but a small number change. This shows that the occupation is growing fast but does not employ many people in that occupation. It is important to watch those occupations with a large percent growth since they may show new employment opportunities in the future.

Average annual job openings, located in the next columns, are based on growth and replacements. Both growth and replacements are important but show different information. Growth reflects an expansion of the occupation in those industries that employ those workers, while replacements show the number of opportunities due to workers leaving the labor force mainly because of retirements.

Occupations that are growing are typically part of growing industries, such as food service, health services, and education services. Other industries, such as manufacturing,

may not be growing, but still need to replace workers leaving the industry. Therefore, an occupation may have little growth, but have a need for replacements. The total openings due to growth and replacements provide useful information on which occupations are expected to have most openings.

The final column in the sample projections table lists the annual compound growth rate for occupations. Annual compound growth is essentially the projected year-over-year growth rate of an occupation for a 10-year period. It reflects the rate at which an occupation would grow if it grew at a steady rate from one year to the next.

Employment projections are useful for analyzing labor demand and career options. Access employment projections for Illinois and its local areas through this web link: http://www.qa.ides.illinois.gov/LMI/Pages/Employment_Projections.aspx.