

When it comes to earnings, musicians are in the top 10 percent of all occupations in Denver, Colorado. They are in the bottom tenth in Kansas City, Missouri. But that kind of earnings variety is the exception, not the rule.

# Whereabouts and wealth:

## A study of local earnings and how they vary

by Alan Lacey and Olivia Crosby

**C**an moving to a new locale make you richer? Or are the paychecks always leaner on the other side of the 'States? Many people think they would reap higher financial rewards if they worked in some other place. But the data tell a more complicated story.

In terms of earnings, an occupation's relative standing—that is, its earnings compared with other occupations' earnings—doesn't change much from one location to the next; scientists, for example, are top earners across the Nation and in nearly every geographic area. But for some occupations, location does affect financial standing.

In the same way, relative earnings in most locations mirror the Nation. Again, however, some areas are unique.

This article presents the results of an earnings study undertaken with data from the Bureau of Labor Statistics (BLS) Occupational Employment Survey of employers. The data were gathered between 1998 and 2000, with the goal of the study being to compare how relative earnings varied from one place to another.

Read on to see which occupations are affected most and least by geography, which locations have the most unusual earnings patterns, what else affects earnings, and

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what other factors you should consider before deciding to move. Two sections describe the study and the limitations of the data.

### **Occupations whose earnings stay put**

So, how much were earnings within an occupation affected by location? For the most part, very little, according to the study. Each occupation was ranked by national earnings decile and by relative local earnings decile, with the top-earning 10 percent of occupations in the first decile and the lowest earning 10 percent in the tenth decile.

The local rank of an occupation exactly matched its national rank about 35 percent of the time. Seventy percent of the time, rank differed by only 1 decile or less. And about 90 percent of the time, rank was within 2 deciles. (See chart.) This means that, overall, the relative earnings of occupations were stable across geographic areas.

One reason relative earnings don't change much is because of the mobility of the labor force. But if earnings differences are sufficiently large, some workers will move to take advantage of the higher pay.

Relative earnings were especially uniform in occupations with very high or very low earnings. In other words, if you earn much more—or less—than most of

your fellow workers do in one place, you probably will continue to earn much more, or less, if you move. For example, chief executives matched their high national earnings rank in nearly all locations studied. Similarly, food preparation and serving workers, an occupation that ranked among the lowest earning nationally, matched their national earnings rank 98 percent of the time. (See table 1.)

Training and skill requirements might contribute to this stability. If requirements are uniform across locations, earnings might tend to follow. Most of the stable, top-earning occupations require education beyond a bachelor's degree. The most stable, which often require substantial experience or postsecondary study, or both, are in the medical, executive, and engineering fields. Strict requirements limit the pool of qualified candidates who are eligible to apply for these jobs, making such workers more expensive to employ than others might be.

Similarly, occupations that were in the lowest earnings decile nationally and regionally tend to have minimal skills and formal training requirements. These occupations are concentrated in the service sector, especially food service, and included fast-food cooks, dishwashers, and cashiers. Many of the occupations in this group are filled by new entrants to the workforce, who often switch to other occupations.



Most of the consistently low-earning occupations in the study have large employment numbers and are found in most locations. Many of the high-earning occupations are found in most locations, but some have smaller numbers of workers in fewer locales. For example, nuclear engineers, a highly specialized occupation with relatively low employment overall, matched their high national earnings rank in 97 percent of the locations in which they occurred—even though they were found in only 140 of the 391 locations examined.

### Occupations that inspire wanderlust

Some occupations bucked the overall trend, with earnings that varied dramatically by location. Table 2 shows occupations whose earnings differed the most across locations. Close to the top is musicians and singers. Their earnings rank matched their national rank only about 7 percent of the time, in 21 of 285 locations. Earnings were in the top decile in places such as the Denver, Colorado, and Cincinnati, Ohio, areas and in the lowest decile in the Kansas City, Missouri, and San Jose, California, areas—and fell into every decile between those extremes elsewhere throughout the country.

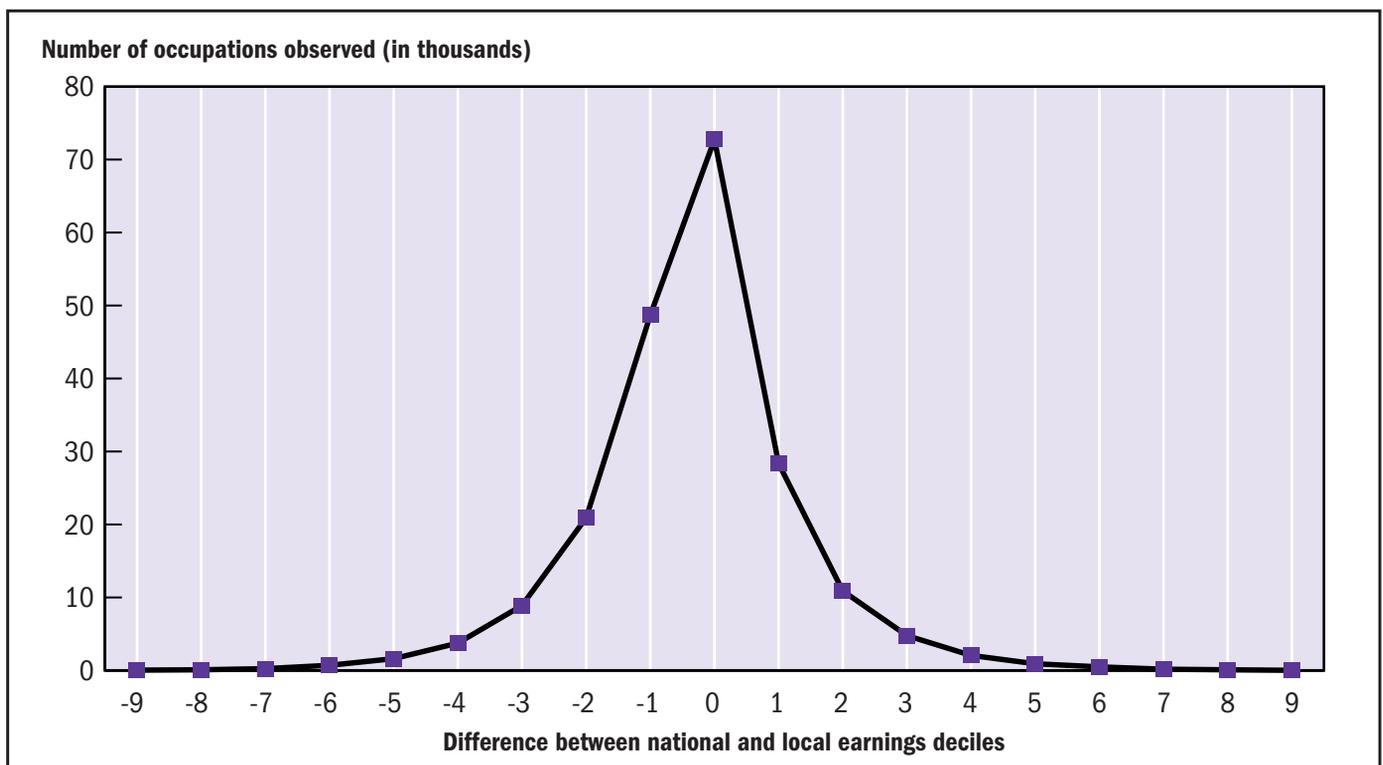
Occupations with the least consistent relative earnings spanned occupational groups and training requirements. Tire builders, for example, who typically need moderate-term on-the-job training, were in the fourth earnings decile nationally. Survey researchers, who usually must have a bachelor's degree, fell into the seventh earnings decile nationally.

Several regionally focused occupations had earnings that varied greatly by location. But relative earnings in the region in which such occupations are concentrated were not necessarily higher than those across the Nation. For example, relative earnings of gaming-related occupations in the Las Vegas, Nevada, and Atlantic City, New Jersey, regions were not linked consistently to relative earnings nationally.

Even if an occupation's earnings are uniform in most cases, some locations might offer an advantage. Consider food preparation workers. In 86 percent of the locations studied, these workers ranked in the lowest earnings decile, just as they did nationwide. But in the Fargo, North Dakota, and Moorhead, Minnesota, area, their earnings got a boost: there, they ranked in the seventh earnings decile.

Conversely, top-earning occupations are not always firmly established in their rank. Lawyers, who usually placed

### Degree of difference between national and local earnings deciles among occupations, 2000





in the top earnings decile, saw a drop in their fortunes in Bismarck, North Dakota, where their earnings fell three deciles when compared to the area's other occupations.

Many occupations were in a higher earnings decile in a given location than they were nationally. Earnings for chefs and head cooks, for example, ranked second from the bottom nationally but second from the top in Miami, Florida. Electricians' earnings, in the fourth decile nationally, were top-ranked in the Chicago, Illinois; Detroit and Flint, Michigan; and Honolulu, Hawaii, areas, among other places. And the relatively few (560) computer-controlled machine tool operators in Decatur, Illinois, ranked five earnings deciles higher than their national earnings decile of seventh.

Some prime locations are predictable. In New York City, for example, radio announcers placed in the third earnings decile, higher than their nationwide ninth decile. This might reflect the experience and skill New York announcers need because of the larger radio market that exists there. Earnings for team assemblers ranked in the second decile in Flint, Michigan—which has many manufacturing plants—compared with a national rank of ninth.

But other high-earning locations might be unexpected. Actors in both the Dallas, Texas, and Salt Lake City-Ogden, Utah, areas, for instance, ranked in the first earnings decile among the occupations in those locations despite a national rank of seventh decile. Couriers and messengers, whose earnings were in the ninth decile nationally, ranked in the third earnings decile in Sumter, South Carolina.

The reasons for an occupation's earning variation are numerous. Sometimes, the occupation might have additional requirements or duties for workers in a particular location. Other times, one region might have a concentration of a higher paying specialty within an occupation or a high paying industry employing a particular occupation. There also could be a recent increase in demand for workers in that occupation. Or, other occupations—ones that are ranked higher nationally than the given occupation—could be absent in that area.

### Strange locations

Just as some occupations have highly variable relative earnings, some locations are topsy-turvy. Small rural

TABLE 1 Occupations with most consistent relative earnings, 2000

Occupation	National earnings decile*	Number of locations in which occupation occurs	Number of locations matching national decile	Percent of locations matching national decile
Engineering managers	1	390	389	99.7
Chief executives	1	391	389	99.5
Dining room and cafeteria attendants and bartender helpers	10	388	383	98.7
Combined food preparation and serving workers	10	390	383	98.2
Pharmacists	1	390	382	97.9
Nuclear engineers	1	140	136	97.1
Dishwashers	10	390	378	96.9
Cashiers, except gaming	10	391	378	96.7
Waiters and waitresses	10	390	377	96.7
Cooks, fast food	10	390	368	94.4
Counter attendants, cafeteria, food concession, and coffee shop	10	390	368	94.4
Dentists	1	384	362	94.3
Hosts and hostesses, restaurant, lounge, and coffee shop	10	390	366	93.8
Ushers, lobby attendants, and ticket takers	10	369	346	93.8
Computer and information systems managers	1	390	357	91.5
Maids and housekeeping cleaners	10	390	357	91.5
Bartenders	10	390	351	90.0
Amusement and recreation workers	10	388	346	89.2
Podiatrists	1	258	230	89.1
Natural sciences managers	1	381	337	88.5

\* Scale: Decile 1 indicates highest-earning occupations and decile 10 is lowest earning.



communities, such as Dubuque, Iowa, and locations in Puerto Rico predominated among areas having occupational earnings rankings that differed most from the national. For example, 81 percent of the occupational earnings deciles in Aguadilla, Puerto Rico, were different from the national ones—more variation than any other location studied. Aguadilla was also the smallest location studied: only 56 occupations in that area had high enough employment numbers to yield reliable data.

It follows, then, that the locations with little variability in earnings typically were large cities and urban centers. These included Cincinnati, Ohio; St. Louis, Missouri; Dallas, Texas; and Boston, Massachusetts. The most consistent location studied was the Richmond-Petersburg, Virginia, area, with earnings for nearly 46 percent of occupations there matching their national ranks.

### What else affects earnings?

As the study shows, location sometimes has little impact on relative compensation. Other factors often are more important.

Among these factors are a worker's levels of experience and education. Earnings increase as workers spend more years on the job. More education also leads to higher earnings. Not only does education qualify workers for higher paying occupations, it increases the likelihood that workers will receive on-the-job training and promotions.

Choice of industry also can affect pay. Some industries require more complex skills or face stiffer competition for workers, for example, both of which may lead to higher earnings.

And skill, motivation, and other worker characteristics prized by employers often have the greatest impact on earnings. Data show that workers who perform more complex tasks or take on more responsibility usually are paid more than their fellow workers who don't.

### Beyond earnings: Other things to consider before relocating

Relative earnings are only one item of consideration when planning a career-related move. The local job market is equally important. Even in an area that offers

TABLE 2 Occupations with least consistent relative earnings, 2000

Occupation	National earnings decile*	Number of locations in which occupation occurs	Number of locations matching national decile	Percent of locations matching national decile
Tire builders	4	93	6	6.5
Musicians and singers	4	285	21	7.4
Survey researchers	7	200	17	8.5
Landscaping and groundskeeping workers	10	390	34	8.7
Massage therapists	7	327	29	8.9
Roustabouts, oil and gas	9	111	10	9.0
Door-to-door salesworkers, news and street vendors, and related workers	8	340	32	9.4
Music directors and composers	5	275	26	9.5
Tax preparers	7	345	34	9.9
Gaming surveillance officers and gaming investigators	9	141	14	9.9
Forest and conservation workers	9	231	24	10.4
Fashion designers	2	196	21	10.7
Model makers, metal and plastic	5	223	24	10.8
Musical instrument repairers and tuners	5	232	25	10.8
Watch repairers	8	200	22	11.0
Farm, ranch, and other agricultural managers	4	287	32	11.1
Orthotists and prosthetists	3	212	24	11.3
Explosive workers, ordnance handling experts, and blasters	5	200	23	11.5
Athletes and sports competitors	5	198	23	11.6
Umpires, referees, and other sports officials	9	153	18	11.8

\* Scale: Decile 1 indicates highest-earning occupations and decile 10 is lowest earning.



relatively high pay for workers in a particular occupation, it might be difficult to find a job opening if the occupation has limited employment or low turnover.

Along with earnings rank, actual earnings levels also are important. BLS gathers earnings data in many surveys, including the BLS Occupational Employment Survey used for this study; data are available online at [www.bls.gov/oes](http://www.bls.gov/oes). In another BLS program, the BLS National Compensation Survey, data are collected according to job complexity and responsibility levels; results are online at [www.bls.gov/ncs](http://www.bls.gov/ncs). Numerous privately developed surveys, each of which may use different methods and data sources to estimate earnings levels, also exist.

But earnings, whether relative or actual, should not be the sole factor in deciding whether to relocate for a job. Also necessary to take into account are living expenses, including rental and housing prices, the cost of other goods and services, and local taxes. These expenses, which vary widely by location, may affect financial livelihood as much as, or more than, earnings do.

Training requirements, too, vary by location. This is especially true for occupations—such as childcare workers, healthcare workers, and construction tradesworkers—that are licensed in some locations. Information on licensing requirements by location is available from America's Career InfoNet, online at [www.acinet.org](http://www.acinet.org), as well as from occupational associations and most public libraries.

Finally, there are many intangible issues to weigh before making a move. Do you like the culture of the area? Are activities you enjoy available there? Do you have family or friends nearby? What about the weather? The school system? Government services?

Numerous career-guidance books and articles offer advice on tackling these and other topics related to occupation-inspired relocation. Visit your local library or career center to investigate the issues before committing to a big move.

## The study

The study described in this article uses data from the BLS Occupational Employment Survey of employers conducted between 1998 and 2000. The survey gathered earnings information on more than 800 occupations in 391 locations.

At first glance, it might seem that comparing actual earnings from one location to the next is enough to show

where a worker in a given occupation would be better off financially. But such a comparison could be misleading. As discussed in the previous section, cost of living might be higher in one area than it is in another, which could negate much of the gain from additional income.

To avoid these complications, the study does not examine actual earnings. Instead, it examines relative earnings—defined earlier as a comparison of the earnings of one occupation with the earnings of another—in a given location. The study was conducted in three steps.

In the first step, occupations were ranked by their nationwide median earnings. Public relations specialists' earnings, for example, placed in the fourth earnings decile nationwide; earnings for fashion designers were in the second decile nationally.

In the second step, occupations were ranked within each geographic location. Public relations specialists in New Orleans, Louisiana, were in the fourth earnings decile compared with other occupations in New Orleans; fashion designers fell to the sixth earnings decile there.

In the third step, local and national ranks were compared for each occupation. Public relations specialists' fourth earnings decile rank in New Orleans matched their national rank, but fashion designers' sixth earnings decile rank is several deciles lower than their second earnings decile rank nationally.

## The data and their limitations

Like all studies, this study has limitations. The data presented here do not include self-employed workers, for example, and they do not distinguish between full- and part-time work. In addition, this study does not adjust for the employment size of an occupation in each location; an area with 10 engineers is given as much weight as a city with several thousand. For these and other reasons, the decile ranks used here are different from the ranks used in other BLS studies and publications.

Like every survey, the survey on which this study is based is subject to error. Data totals are extrapolated from a sample of employers and are subject to some level of sampling error. Some respondents may misinterpret questions, answer incorrectly, or make other mistakes.

And finally, the data presented here do not address variations in cost of living, do not give actual earnings figures, and may not reflect quickly changing labor market conditions. The study presents trends, concepts, and examples that are intended as a starting point for further research.

