

Alaska INDUSTRY FORECAST

2014 to 2024

Strong growth likely in health care, others expected to lose ground

By **PAUL MARTZ**

The oil price drop that began two years ago has dampened Alaska's economic outlook, but the state is still projected to add 19,652 jobs between 2014 and 2024, equating to 5.8 percent growth. While we expect most industries to grow over the 10-year period, several that are linked to oil and gas are projected to lose ground.

Low oil prices and ongoing declines in production have a direct effect on state government and on capital budgets in particular. The continuation of reduced spending by oil companies and government will be especially damaging to heavy and civil construction jobs, which are projected to fall by 15.7 percent. (See Exhibit 1.)

Other industries with big projected losses are oil and gas extraction at -10 percent and mining support activities at -7.2 percent. Losses are also likely for state government, manufacturing, utilities, financial activities, and educational services.

On the up side, health care is expected to continue its three-decade trend of strong growth. From 2014 to 2024, health care jobs are projected to increase by 15.8 percent, largely driven by the aging of Alaska's population plus a modest increase in the overall population. Notable job growth is also projected for accommodation and food service, retail, and transportation.

Oil-related construction categories will be hit hardest

The construction industry will have a mix of projected losses and gains over the decade, for net growth of

Why this forecast differs so much from the last one

Our last set of projections, which preceded the start of the drop in oil prices, predicted growth of about 10 percent between 2012 and 2022 — a picture that has changed considerably. And while projections are not able to predict business cycles or foresee economic shocks, especially those caused by a single commodity's price, the timing of the price plunge allowed us to infer some of the effects on not just future oil and gas employment but also many of the industries linked to it.

However, the projections can't gauge the long-term magnitude of the overall losses or estimate unseen secondary effects on other industries. Similarly, the projections can't figure in possible future projects, such as a gas line, that haven't yet broken ground or completed the permitting process.

While we've modeled industries with as much relevant information as possible, it's important to remember any future changes in the price of oil will mean changes in future employment levels. That's largely why we update our long-term projections every two years.

just 1.7 percent, or 285 jobs, by 2024.

Within the heavy and civil construction sector, the biggest projected loss will be in oil and gas pipeline and related structures construction, at 372 jobs (-38.9 percent). Those jobs wax and wane with the availability of pipeline projects, and while a loss of 372 jobs would be substantial, current employment is at a high not seen since the early 1990s. With that loss, employment would settle at a level slightly above its 25-year average.

Other projected construction losses include:

1

Alaska Employment Forecast by Industry 2014 TO 2024

Industry ¹	2014 estimated jobs ²	2024 projected jobs	Change from 2014 to 2024	Total % change ³
Total Employment, All Jobs ⁴	336,659	356,311	19,652	5.8%
Goods-Producing	50,597	49,615	-982	-1.9%
Natural Resources and Mining	19,127	18,148	-979	-5.1%
Agriculture, Forestry, Fishing and Hunting	1,029	1,116	88	8.5%
Mining	18,098	17,032	-1,067	-5.9%
Oil and Gas Extraction	4,203	3,785	-419	-10.0%
Mining (except Oil and Gas)	2,766	2,918	152	5.5%
Support Activities for Mining	11,128	10,329	-800	-7.2%
Construction	16,904	17,189	285	1.7%
Construction of Buildings	4,603	5,065	462	10.0%
Heavy and Civil Engineering Construction	3,909	3,294	-615	-15.7%
Specialty Trade Contractors	8,392	8,830	438	5.2%
Manufacturing	14,567	14,278	-288	-2.0%
Food Manufacturing	10,953	10,653	-300	-2.7%
Seafood Product Preparation and Packaging	10,575	10,186	-389	-3.7%
Manufacturing, All Other	3,614	3,626	12	0.3%
Services-Providing	285,368	306,337	20,969	7.3%
Trade, Transportation, and Utilities	66,209	71,304	5,095	7.7%
Wholesale Trade	6,454	6,775	321	5.0%
Retail Trade	36,168	38,912	2,744	7.6%
Transportation and Warehousing ⁵	21,398	23,465	2,067	9.7%
Air Transportation	5,918	6,439	522	8.8%
Water Transportation	1,377	1,573	196	14.2%
Truck Transportation	2,831	3,099	268	9.5%
Transportation and Warehousing, All Other	11,273	12,354	1,081	9.6%
Utilities	2,189	2,152	-37	-1.7%
Information	6,200	6,332	132	2.1%
Financial Activities	12,833	12,677	-155	-1.2%
Finance and Insurance	6,935	6,903	-32	-0.5%
Real Estate and Rental and Leasing	5,898	5,775	-123	-2.1%
Professional and Business Services	29,432	31,456	2,025	6.9%
Professional, Scientific, and Technical Services	14,863	15,458	595	4.0%
Management of Companies and Enterprises	2,582	3,160	578	22.4%
Administrative and Support and Waste Management and Remediation Services	11,987	12,838	851	7.1%
Education and Health Services	76,030	84,130	8,101	10.7%
Educational Services, Public and Private ⁶	30,642	31,567	925	3.0%
Elementary and Secondary Schools, Public and Private	20,899	21,945	1,046	5.0%
Educational Services, Public and Private, All Other	9,743	9,622	-121	-1.2%

Table continues on next page

- Power and communication line and related structures construction (loss of 140 jobs, or -25.6 percent). This loss would come from the completion of power plant construction projects in the Anchorage/Matanuska-Susitna area. Although the rate of decline has begun to taper, we expect employment to fall to historic lows after the remaining projects are complete.
- Highway, street, and bridge construction (loss of 74 jobs, or -4.7 percent). These jobs are likely to be hit hard by state capital budget cuts, but the availability of federal funding for these types of projects will moderate the loss.

Other construction sectors are projected to add jobs. Residential and nonresidential building construction and the specialty trade contractors industry in particular are projected to buoy overall construction employment.

- Residential building construction, which is projected to lose jobs in the short term, is set to recover by the end of the forecast period with projected 12 percent growth between 2014 and 2024 — a gain of 182 jobs.
- Nonresidential building construction's growth rate will be an estimated 9 percent, or 280 added jobs. That growth would still leave the sector well below the employment peak it reached in 2007.

1

Alaska Employment Forecast by Industry, continued 2014 to 2024

Industry ¹	2014 estimated jobs ²	2024 projected jobs	Change from 2014 to 2024	Total % change ³
Health Care and Social Assistance, Public and Private ⁷	45,387	52,563	7,176	15.8%
Ambulatory Health Care Services	18,017	22,018	4,000	22.2%
Hospitals	13,131	14,219	1,088	8.3%
Health Care and Social Assistance, All Other	14,239	16,326	2,087	14.7%
Leisure and Hospitality	34,438	38,149	3,711	10.8%
Arts, Entertainment, and Recreation	4,626	5,132	506	10.9%
Accommodation and Food Services	29,812	33,017	3,205	10.8%
Accommodation	8,208	8,985	777	9.5%
Food Services and Drinking Places	21,604	24,032	2,428	11.2%
Other Services (Except Government)	12,279	13,385	1,106	9.0%
Total Government	47,947	48,903	956	2.0%
Total Federal Government ⁸	13,048	13,861	813	6.2%
Total State Government ⁹	18,071	17,451	-620	-3.4%
Total Local Government ¹⁰	16,829	17,592	763	4.5%
Unreported	694	359	-	-

¹Several industry categories are not consistent with others we publish, as detailed in the other footnotes below.

²Industry sector numbers may not sum to total employment because of rounding.

³Percent change may be inconsistent with employment change due to rounding of the employment numbers.

⁴Excludes self-employed workers, fishermen, domestic workers, unpaid family workers, and nonprofit volunteers.

⁵Includes U.S. Postal Service employment.

⁶Includes local and state government educational service employment.

⁷Includes public sector hospital employment.

⁸Excludes uniformed military, postal, and hospital employment.

⁹Excludes university, railroad, and hospital employment.

¹⁰Excludes public school and hospital employment.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

- The specialty trade contractors sector is projected to gain 438 jobs by 2024, or 5.2 percent. Employment has picked up after heavy recession-related losses between 2008 and 2010, but we still expect declines in the short term. Long-term growth numbers will put the industry closer to the peak job levels it hit before the national recession.

Oil and gas projected to shed jobs

This round of projections comes on the heels of the oil and gas industry's highest employment since the early 1990s, and the drop in oil prices is quickly eroding that peak. Prices are expected to rebound somewhat, but we expect the effects of short-run declines to last well into the projections period.

By 2024, the oil and gas extraction industry is projected to lose 419 net jobs, or 10 percent. The vast majority of oil and gas jobs are classified under support activities for mining, which consists mostly of drilling oil and gas wells and support activities for oil and gas operations. Drilling jobs are projected to fall by 232 (-18.9 percent), and the support activities by 530 jobs (-5.5 percent). Again, while we expect oil prices to rebound toward the end of the projection period, the short-term losses are likely to be larger than subsequent gains.

Minor growth for hard rock mining

Nonoil mining is projected to add 152 jobs from 2014 to 2024, or 5.5 percent. Any major development prospects will likely be slowed by lower mineral commodity prices.

New mines are unlikely in the current climate. Planned expansion projects for currently operating Alaska mines will likely generate most of the growth.

Corporate management to grow

Alaska isn't known for large, national corporate offices, which is what the sector "management of companies and enterprises" might imply — but the state does have a number of employers that fall into this category.

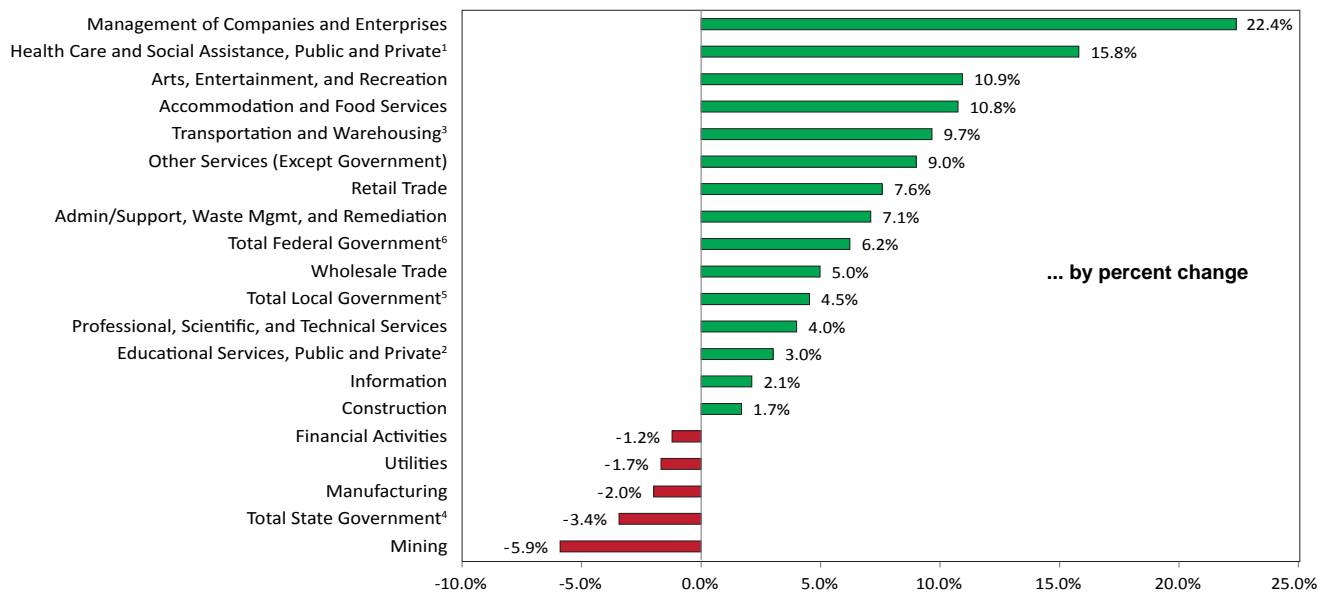
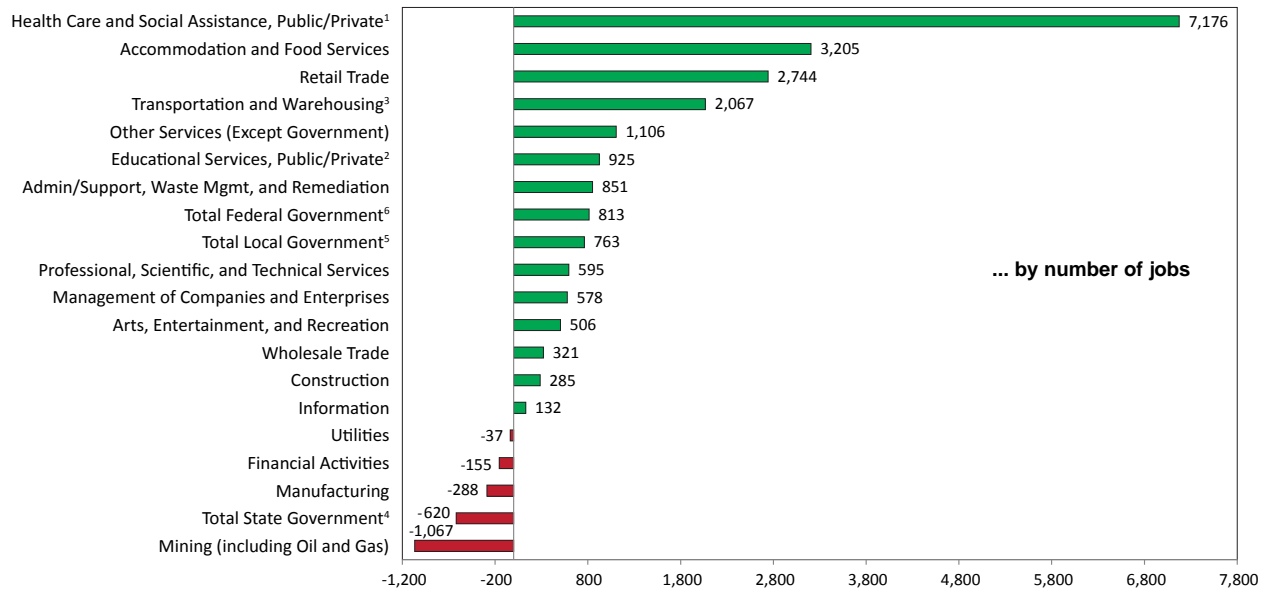
Almost 90 percent of these jobs are in Alaska Native corporations, although it's important to note these aren't all the jobs in Native corporations — just in their corporate offices. Many Native corporations have subsidiaries operating in Alaska and across the United States that are managed by Alaska corporate offices.

Oil and gas extraction plays a big role in many Native

2

Health Care Still Leads, Some Industries Face Declines

ALASKA INDUSTRIES' PROJECTED GROWTH, 2014 TO 2024



¹Includes public sector hospital employment.
²Includes local and state government educational service employment.
³Includes U.S. Postal Service employment.
⁴Excludes university, railroad, and hospital employment.
⁵Excludes public school and hospital employment.
⁶Excludes uniformed military, postal service, and hospital employment.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

corporations, but because they invest in a diverse set of industries, the management of these corporations will likely escape long-run losses.

We also expect contract opportunities available through the Small Business Administration's 8(a) Business Development Program to provide a continued source of expansion as well as an additional buffer against the oil

price shocks affecting their oil operations in Alaska. As a result, this sector is projected to add 578 jobs over the period, or 22.4 percent.

Health care will continue to grow

From 2014 to 2024, Alaska's population is projected to

How we create these projections

The Alaska Department of Labor and Workforce Development's Research and Analysis Section creates 10-year industry and occupational forecasts for Alaska every other year. These projections are the product of four steps:

Step 1: Project industry employment

We use data from the Quarterly Census of Employment and Wages to determine the number of jobs for each industry during the first year, or "base year," of the projection period. Estimates and projections do not include self-employed workers, private household workers, most agricultural workers and fishermen, and others who are not covered by the state's unemployment insurance program. Certain types of public-sector employment — such as education, hospitals, rail transportation, and U.S. Postal Service — are combined with employment in private-sector industries.

We create projections for each industry based primarily on historical trends, Alaska and U.S. population projections, and other industry-specific variables. The projections also take into account any knowledge of specific projects and observations of the current economic climate.

Step 2: Determine the occupational makeup, or "staffing pattern," of each industry

To estimate base year employment for each occupation, we determine the occupational "staffing pattern" of each industry. Most industries have a variety of occupations. The staffing pattern is the breakdown of each occupation's share of the industry's total employment, referred to as "staffing ratios."

Employers in Alaska report their workers' occupations when they submit unemployment insurance quarterly contribution reports, which form the basis of Alaska's Occupational Database. We use an analysis of the three most recent years of ODB data to calculate occupational staffing ratios for the majority of industries.

Step 3: Calculate base year and projected occupational employment

For each occupation, we multiply each industry's estimated base year employment by the staffing ratio, then sum the results to get the base year estimate.

For the projections, adjustments to staffing ratios within an industry are called "change factors." Change factors are multipliers that increase or decrease an occupation's estimated share of industry employment based on factors other than an industry's projected employment change. Some examples are changes in consumer demand, technology, or business practices.

We then multiply each industry's projected employment by the adjusted staffing ratio for each occupation, with the results summed by each occupation to get the projections.

Step 4: Estimate job openings

Job openings for an occupation result from both job growth and replacements of workers who leave. An occupation's growth openings are equal to its positive change over the projection period. Estimates of replacement openings use a combination of Bureau of Labor Statistics formulas and formulas derived from an analysis of historical ODB data.

grow by 8 percent, which is modest by historical standards. During the same period, the number of senior citizens is expected to increase by a whopping 68 percent. This will require a substantial increase in health and social assistance jobs, particularly those that care for seniors. These jobs are projected to increase by 7,176, or 15.8 percent.

The era of rapid hospital job growth appears to be winding down, though, with hospitals projected to add 1,088 jobs (8.3 percent). Between 2012 and 2015, hospitals generated just 51 new jobs, which included a slight loss

between 2013 and 2014. This was a big change from 2001 to 2012, when hospitals added an average of 295 jobs per year. We still expect the increase in seniors and the population overall to produce job growth in hospitals, but the rate will likely be slightly less than half of what it was in recent history.

In contrast, the ambulatory health care category — which encompasses physician's offices, outpatient care centers, and home health care services — is expected to grow by 22.2 percent (4,000 jobs). The growing number of seniors and resulting increased demand for home

health care services will drive growth for these facilities, which provide medical care to patients at home rather than in a clinical setting.

Related growth is projected in the social assistance category from more nursing care facilities and retirement communities. That industry will add a projected 611 jobs (38.3 percent) over the 10-year period.

Tourism, population growth will boost leisure and hospitality

The leisure and hospitality sector is projected to add 3,711 jobs from 2014 to 2024, a growth rate of 10.8 percent, mostly through increases in the number of tourists as well as overall population growth.

- Traveler accommodations are projected to grow by 8 percent (almost 600 jobs).
- Restaurants are projected to grow by 14 percent (2,406 jobs). Although job losses in high-wage industries could put a damper on restaurant growth, there are no signs of that yet in the data and we don't expect it would counteract growth from the increases in population and tourists.
- The "other" amusement and recreation industry is projected to add 375 jobs, or 14 percent. In Alaska, these are mostly tourist-oriented guide services.

The only projected decline for the leisure and hospitality sector is in bars, which will lose 272 jobs (-17 percent), a continuation of a downward trend that began in the late 1990s. That decline isn't because people are drinking less, but because they are moving away from establishments that serve only drinks in favor of places that also serve food and are categorized as restaurants.

Mixed projected growth in retail

The projected growth rate for retail trade is 7.6 percent, or 2,744 jobs, mainly through general merchandise stores. These retail juggernauts alone are expected to generate 1,394 jobs, a 14.7 percent increase. Consumers are transitioning from traditional specialized retailers to larger stores that sell appliances, clothing, and groceries under one roof. However, while the long-term outlook for these stores is positive, the short-term outlook is bumpy. The reality of oil and gas losses and an expected dip in consumer confidence as the state adjusts to those consequences could temporarily reverse the strong growth of the past few years.

Health and personal care stores are set to grow steadily throughout the projections period, adding 266 jobs (23.2 percent). Drug stores, optical goods stores, and beauty supply stores are all expanding, and we expect this trend

to continue with the growth in the state's population, especially senior citizens.

Electronics and appliance stores, department stores, and food and beverage stores are expected to lose jobs, but most of these losses will be a flattening-out or continuation of historical declines. Food and beverage stores will lose a projected 110 jobs (-2 percent), which would put it at the same level it's been skirting since 2002. Department stores are projected to shed 120 jobs (-13.8 percent), a continuation of losses that began in 2010.

Air will lead for transportation

The transportation and warehousing sector is projected to net 2,067 new jobs, or 9.7 percent growth, mostly in air transportation:

- Scheduled air transportation is projected to add 451 jobs (8.9 percent), driven by an increase in tourism and overall population growth.
- Couriers and express delivery services are projected to add 409 jobs (17.8 percent). This industry mostly consists of air cargo employers operating out of the Anchorage airport.
- Support activities for air transportation will add a projected 261 jobs, for 23 percent growth.

Oil and gas and construction declines are anticipated to slow support activities for road transportation, resulting in a slight loss of 23 jobs (-14.9 percent).

Truck transportation and water transportation are both projected to grow, by 9.5 percent and 14.2 percent respectively. Water transportation did lose jobs in 2014, but that appears to have stemmed from a merger of two large barge companies in Southeast. Truck transportation has continued to grow, but we project some employment drops in the short-term with a rebound to similar levels by 2024.

Information increasingly digital

While traditional media are expected to continue shrinking in the coming years, the information sector as a whole is expected to generate 132 new jobs (2.1 percent), mainly in telecommunications, which is made up of companies that provide Internet, cell phone, and cable television service. Telecommunication jobs are expected to increase by 340 (8.2 percent).

Newspaper, periodical, book, and directory publishers will continue to cut jobs, at an expected loss of 105 (-16.5 percent). Broadcasting, which doesn't include Internet, is projected to lose 113 jobs (-13.7 percent).

Education to grow modestly

The public and private education sector is projected to net 3 percent growth, or 925 total jobs. Elementary and secondary schools are likely to gain about 1,046 jobs (5 percent) because the school-age population is expected to increase by 6.5 percent over that time, from 144,964 to 154,419 students. The number of teachers and other staff members isn't likely to increase at quite the same rate due to constrained state education funding.

The slight offset to the sector's growth will be a loss of 121 jobs (-1.2 percent) in business, technical, trade, and other schools category, which is mostly the University of Alaska. It also contains jobs at Alaska Pacific University, trade schools, and training organizations combined with private sports and recreational instructors. Continued declines in state funding and enrollment are expected to result in job losses well into the projection period.

Some gains in professional, scientific, and technical services

A mix of losses and gains are projected for the eclectic professional, scientific, and technical services sector, for net growth of 4.0 percent, which equates to 595 jobs.

Five of the sector's 17 industries will likely lose jobs, mostly confined to oil-related industries such as geophysical surveying and mapping services. The total loss for four of those five will be just 150 jobs, with most of the loss in the fifth category, legal services. Legal services is projected to shrink by 19 percent (247 jobs). The long-term trend appears to be more lawyers becoming self-employed, and self-employment isn't included in the wage and salary data we use. (See the sidebars on pages 4 and 8 for more about the data and methods.)

The engineering and drafting services industry will add a projected 285 jobs over the forecast period, which would put it back in the black after what we expect to be large short-to-mid-term losses. If the price of oil doesn't rebound as expected, however, those losses will continue throughout the period.

Other notable subcategories that are expected to add jobs include:

- Research and development in the physical, engineering, and life sciences (gain of 91 jobs, or 13.9 percent)
- Testing laboratories (gain of 106 jobs, or 23.2 percent)
- Other professional, scientific, and technical services, except veterinary services (gain of 123 jobs, or 11.8 percent)
- Veterinary services (gain of 99 jobs, or 13.5 percent)
- Accounting, tax preparation, bookkeeping, and payroll services (gain of 119 jobs, or 8.6 percent)

Federal and local government will offset state losses

Government employment, excluding education and hospitals, is projected to increase by 2 percent (956 net jobs) from 2014 to 2024.

- The federal declines of the recent past have rebounded, and we expect a gain of 813 jobs (6 percent), which would put federal employment at just under its 25-year average.
- State government (excluding education) is projected to lose 620 jobs (3.4 percent) due to continuing pressure on budgets by low oil prices and declining production. State government losses will be biggest in the near future, but losses will likely continue well into the projections period.
- Local government is projected to grow slightly, adding 763 jobs (4.5 percent), but state budget cuts' effects on local government aren't yet clear. We expect short-term losses as less state money circulates into communities, but so far municipal employment levels are still rising. Sales and property taxes may be part of that stability, and we expect those revenues plus population growth and federal money to drive small municipal job gains.