

About Metroplan

Metroplan is a voluntary association of local governments that has operated by interlocal agreement since 1955. Originally formed as the Metropolitan Area Planning Commission of Pulaski County, Metroplan now has members in five counties of the six-county metro area (see below). Metroplan is the designated metropolitan planning organization (MPO) under Title 23 of the United States Code.

Metroplan serves as the regional voice on issues affecting Central Arkansas, develops transportation plans required by federal law, convenes stakeholders to deal with common environmental issues, and provides information and staff resources to our member local governments, the business community and the public. As part of that mission, Metroplan publishes *Metrotrends* twice yearly. The spring edition is the *Demographic Review and Outlook*; the fall edition is the *Economic Review and Outlook*.

About CARTS

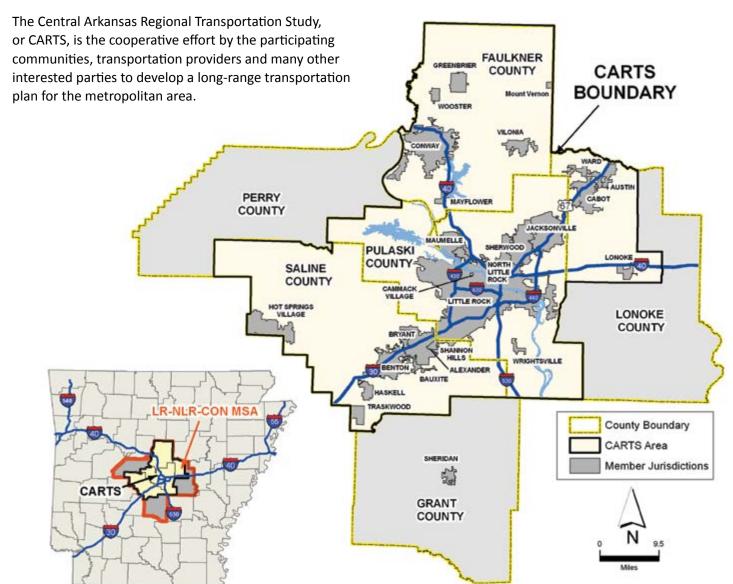


Table of Contents

Economic Recovery Gaining Steam	I
The Innovation Hub	3
obs of the Future	4
UAMS BioVentures Tocol Pharmaceuticals Center For Toxicology and Environmental Health (CTEH)	7
High Finance—The Bond Sector in Central Arkansas	9
Creative Minds, Creative Spaces	. 10
Local Housing Market Holds Steady	. 12
Construction Value Trends	. 14
Economic Health—The Private Option and Central Arkansas Healthcare	. 16
Economic Outlook 2016	. 17
Statistical Supplement: Occupations and Industries	. 18

Metroplan's *Economic Review and Outlook* is an annual chronicle providing economic data and insight for the Little Rock-North Little Rock-Conway MSA.

Prepared by: Jonathan Lupton: research, writing and editing

Lynn Bell: graphics, layout, and illustration

Photographs: Lynn Bell and Jonathan Lupton except where noted

Notice of Nondiscrimination

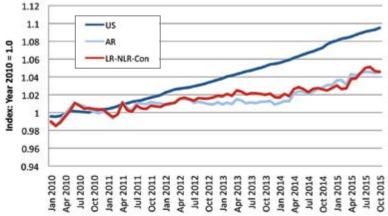
Metroplan complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, Metroplan does not discriminate on the basis of race, sex, color, age, national origin, religion or disability, in admission or access to and treatment in Metroplan's programs and activities, as well as Metroplan's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding Metroplan's nondiscrimination policies may be directed to Susan Dollar, ADA/504/Title VI Coordinator, 501 West Markham Street, Suite B, Little Rock, AR 72201, (501) 372-3300, or the following e-mail address: sdollar@metroplan.org. (Hearing impaired may dial 711.) This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

This report was funded in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

Economic Recovery Gaining Steam

The Central Arkansas economy has seen a pickup in growth during 2015. Job growth has accelerated, outpacing the national average since March, following a long stretch of nearly flat regional job growth through 2013-2014. By September of 2015, regional jobs had reached a new high of 353,100. The chart (below) shows the region's job change from July 2014 to July of 2015. Three of the top four job-providers have been in services: (1) professional and business services, traditionally a local strength but an industry which saw major local losses in the Great Recession; (2) leisure and hospitality, a sector which has been a job-growth engine for Central Arkansas during the recent economic recovery, and (3) education and health, a mainstay local job-producer. The mining and construction sector (mainly construction) ranked second among regional job-gainers in the past year, showing strong gains after several years of losses during the 2009-2010 recession and the ensuing slow recovery. Local manufacturing also saw some job gains, albeit small in scale. The only job losses were in

Employment Change January 2010–October 2015 (Monthly, Seasonally Adjusted)

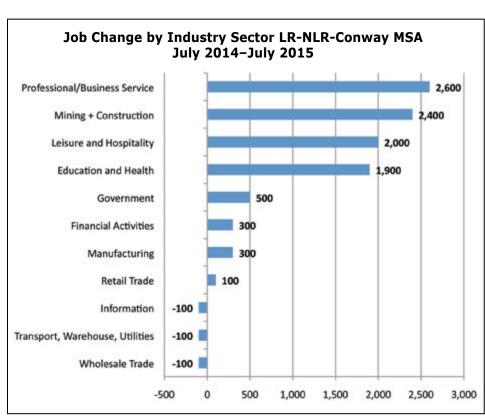


Source: Arkansas Department of Workforce Services. Seasonal Adjustment for LR-NLR-Con MSA by Metroplan.

information, wholesale trade, and transport/warehouse/ utilities, and these reductions were small.

Unemployment has continued downward, reaching 4.6 percent (seasonally adjusted) in September of 2015.¹

As the chart on the next page shows, U.S. unemployment has also continued trending downward, dropping below the Arkansas average unemployment rate during most of 2015. Local unemployment is running low enough to suggest the beginnings of local labor shortage. Labor shortage conditions tend to boost wages, but can also constrain employment growth. However, better job availability may also lure some disengaged people back into the workforce. This may be happening already. Metroplan estimates that about 49.4 percent of Central Arkansas population is in the labor force in 2015, an uptick

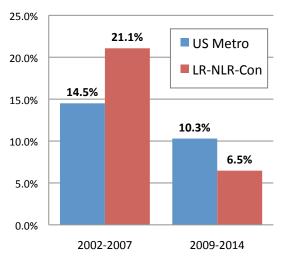


Source: Arkansas Department of Workforce Services.

¹Reported as 4.4 percent (not seasonally adjusted) by the Arkansas Department of Workforce Statistics. Seasonal adjustment for Central Arkansas by Metroplan.

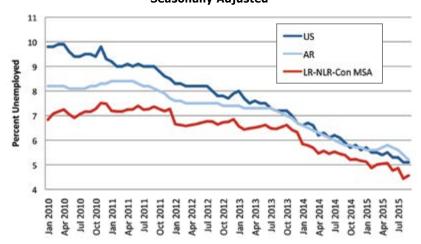
²The last gain was 2003-2005, and the peak was back in 1996, with 56.3 percent of Central Arkansas population in the labor force.

GDP Growth in Five-Year Intervals



Source: U.S. Bureau of Economic Analysis. Figures are derived from chained 2009 dollars.

Monthly Unemployment Rate January 2010-September 2015 **Seasonally Adjusted**



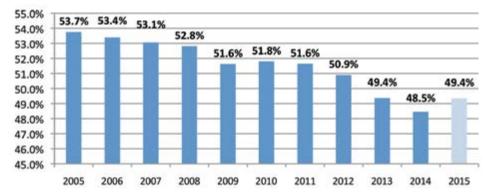
Source: Arkansas Department of Workforce Services. Seasonal adjustment for LR-NLR-Con MSA by Metroplan.

compared with 48.5 percent the year before and the first participation gain in a decade.2

Regional incomes have not fared as well as jobs. The chart above shows GDP data from the U.S. Bureau of Economic Analysis.³ It compares U.S. and regional GDP growth over two different intervals, the pre-recession years 2002-2007 and the most recent interval 2009-2014. As you can see, U.S. growth ran slower than the local region during the earlier interval. Both were slower 2009-2014, but the U.S. outpaced Central Arkansas in the later period, mainly due to slow local income growth.

Overall job gains, unemployment rates and income data are only partial indicators of economic activity, conveying data only in hindsight. This edition of the Metrotrends Economic Review and Outlook will take a deeper look at today's Central Arkansas economy. As computers, robots, self-driving vehicles and other technologies replace human labor in more roles than ever, the very nature of jobs is changing. Future jobs will involve the things humans do well, like innovation, research, and "human touch" activities machines cannot do. M

LR-NLR-Conway MSA Labor Force Share of Population 2005–2015



³U.S. Bureau of Economic Analysis; figures for 2014 are preliminary.

The Innovation Hub

Despite the pressure automation and computers are putting on traditional jobs, the demand for workers with technical and creative skills has never been greater. At the same time, plenty of workers aspire to better-paying and more interesting jobs. Yet there is often a disconnect. It's hard to get firms the skilled workers they need. It's

also hard for ambitious workers to identify and acquire skills to help them grow professionally. Aspiring entrepreneurs and inventors often need help with patenting, accounting, business planning, and finance.

The Innovation Hub is a local institution, led by Warwick Sabin, that has stepped into this breach of economic confusion, missed opportunities, and untapped

potential. Founded in 2013, it is a non-profit enterprise in downtown Argenta (North Little Rock), patterned on the Tech Shop, an expanding Ford Motor Company spinoff, with locations in Austin, Arlington, San Francisco, Detroit and Pittsburgh.2 The entire state of Arkansas, with just over 3 million people, is smaller than most large metro areas. The Innovation Hub aims to boost the state's technology access and entrepreneurship to compete with these larger economies. The Innovation Hub provides local "maker space" tools, meeting places, assistance for paying members, and discounts and free programs for students and schools. It's a place for trying out a laser printer, or a CNC laser cutter, learning to code (the hot new highdemand skill), or trying to conceptualize a promising new

business. The Innovation Hub is a great place to develop a prototype part and begin testing it out.

Most economic development projects cost millions of dollars, involving expensive real estate, marketing and economic incentives to

> lure firms and bring in a few jobs. Such efforts often fail. Even when they succeed, the lured-in firms sometimes later shut down or move on. The best regional growth stories instead involve home-grown firms, embedded by ties of know-how, local competitive advantage and loyalty to their "birth" region. Companies like Acxiom in Central Arkansas, or Wal-Mart in Northwest Arkansas. help demonstrate this point. The

Launch Pad Director Joel Gordon demonstrates an electromagnet to an enthusiatic after-school program class.

up, at a fraction of the cost of more conventional economic development efforts.

On Friday, October 30th, the Innovation

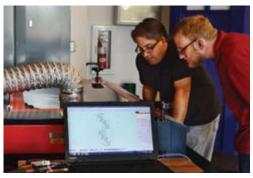
"We have completed 70 new product/prototyping projects at the Innovation Hub so far in 2015."

—Warwick Sabin, Executive Director

Hub announced a new program to develop HubX, a health care accelerator, in cooperation with Baptist Health. The program aims to develop startup companies, providing seed investments and mentorship.

Innovation Hub plans to build local growth from the roots

Director Hollie Lewis discusses logo design with Members try out the laser machine, which can an Art Connection employee.



engrave, cut and etch a wide variety of materials.

The Innovation Hub is expanding more quickly than originally planned. The North Little Rock facility will soon open a Regional Food Innovation Center. The Hub has also opened a new center in Fayetteville, funded by the Fayetteville Chamber of Commerce. Its unconventional approach to economic development shakes up some old assumptions, possibly changing the rules of the game. M

¹Metroplan first featured the Hub in its award-winning 2013 Economic Review and Outlook, which explored entrepreneurship in Central Arkansas. ²With more locations opening soon in Los Angeles, St. Louis, and elsewhere.

^{*}The Little Rock Technology Park incubator will be profiled in a future issue.

Jobs of the Future

Machines are doing more things people used to do, causing old familiar jobs to disappear. The sense of fear is not new; there were waves of concern about machines in the nineteenth century. A famous article in Time magazine expressed the same alarm in 1961, pointing out then that automation was moving beyond the factory and replacing previously safe office jobs.

Robots are today serving more roles. Software programs are replacing accountants; self-driving cars are on the horizon. About 2.6 million U.S. jobs involve driving motorized vehicles—long-haul trucks, delivery trucks, taxi cabs, to name a few—and many driving jobs might begin disappearing. The field of robotics is advancing into machines which can "see," and act on visual information. Some experts claim a "Cambrian Explosion" in robotics is on the horizon; even complex high-end jobs could be at risk.1

In the past, while automation has always cost some workers their jobs, the boost to productivity has created new wealth and spurred the creation of new jobs over the long term. Job growth has moved in waves from the primary sector (mining and agriculture) to secondary sectors (construction and manufacturing), then the tertiary sector (services), to the quaternary sector of high-end and high-tech services, and so on. Each new wave seems odd, esoteric, and too specialized to be relevant at first, replacing the "vital" jobs that went before (like farm workers, then factory laborers), while overall output has continued climbing.

Two hundred years ago, agricultural workers made up more than eight in ten jobs. That was down to less than one-third by 1910, and in 2014, less than a percentage point. Yet we're better-fed than ever. Manufacturing jobs probably seemed odd and irrelevant to the subsistence-farming masses in 1810, but accounted for one in five jobs by 1910. Today the number of

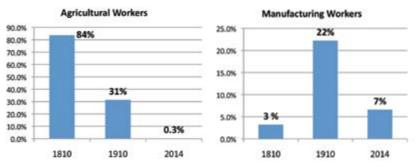
actual production workers in manufacturing is down to 6.6 percent, and there has never been a wider range manufactured goods available to consumers.

Certainly many jobs and skills of the past will continue receding, in line with historical experience. There is no easy answer to the questions posed by automation. The adjustment will demand major investments by governments and individuals in education and training. Some of the solutions will be easier than they look, because creativity is innate to human nature.

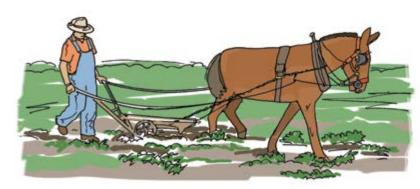
In seeing jobs of the future, the critical question is simple: which tasks will machines take over, and which ones will remain uniquely human? Two areas of human capability stand out:

1. Abstract problem-solving, through inductive reasoning, intuition, creativity and persuasion. Most jobs of this type will demand a high degree of education and specialization.

Share of Total U.S. Jobs 1810-2014



Source: Historical Statistics of the United States Colonial Times to 1970, and U.S. Bureau of Labor Statistics.



¹Gill A. Pratt, "Is a Cambrian Explosion Coming for Robotics?" Journal of Economic Perspectives, Summer 2015.

2. Human/manual tasks. Jobs where human workers are necessary, either because customers prefer the "human touch," or because the job requires constant adaptation, and spoken language skills.² Examples include maintenance/repair services, sales, food preparation/serving, home health care, and security/ protective services. While some of these jobs require a high level of skill, others will remain open to lessskilled persons.

At the same time, the very definition of "a job" will probably continue changing. A subsistence farmer in 1810 did not even have a "job" by the modern definition — there was no paycheck; it was a life pattern of hard manual labor, with some trade, decision-making and risk-taking at the edges. The factory job of the early 20th century required no creativity, with a very precise definition of time, production and pay. The nature of jobs will continue changing, becoming more varied across the spectrum, yet also more specialized. This edition of the Metrotrends Economic Review and Outlook surveys some promising directions in the local economy. Since entrepreneurship and job creation are closely correlated, it should be no surprise that the very human skill of creative risk-taking is a theme that weaves together these tales of local success. M

Local Occupations Ranked by Change 2007-2014

Local Growth Rank	U.S. Growth Rank	Occupation	Job Change 2007-14	LQ 2014	Projected Growth to 2022
1	13	Management	4,490	1.09	Slow
2	1	Healthcare Practitioners and Technical	3,260	1.39	Fast
3	5	Personal Care and Service	3,030	0.96	Fast
4	6	Food Preparation and Serving Related	2,680	0.95	Average
5	12	Computer and Mathematical	2,390	1.11	Fast
18	14	Installation, Maintenance, and Repair	-980	1.04	Average
19	2	Office and Administrative Support	-2,200	1.08	Slow
20	3	Construction and Extraction	-2,380	0.95	Fast
21	21	Production	-3,280	0.76	Slow
22	10	Transportation and Material Moving	-6,190	0.97	Average

Source: Bureau of Labor Statistics.



Local Occupations in Times of Change

The table above gives perspective on change in jobs by occupation 2007-2014 in the Central Arkansas region. It shows the top and bottom five occupations for growth in the local region, and also ranks U.S. growth in each category.³ It then gives the local Location Quotient, a measure of local specialization in 2014 compared with the U.S. average.⁴ Finally, it shows projected growth to 2022, according to U.S. Bureau of Labor Statistics projections, simplified to "Fast, Average, and Slow." It then gives the same statistics for the region's five lowest-performing occupations, ranked by job loss.

The region has taken its biggest "hit" in transportation jobs, followed by production (manufacturing), and construction jobs. Some bounce-back can be expected

in construction jobs, which were hit hard by the housing market slump, but the prospect for the other local sectors which lost jobs 2007–2014 is modest at best.

Local management jobs grew the fastest, ranking first by absolute growth locally but thirteenth among U.S. occupations, but the sector will probably gain slowly in the future. Two local occupational groups, healthcare practitioners and personal care workers, have grown faster than the U.S. average and will continue doing so according to BLS projections. The practitioner jobs require a high degree of education and skill, while personal care jobs typically provide employment for less-educated people. The region's computer and mathematical occupations ranked fifth (twelfth for the U.S.) and are projected to see fast growth into the future. These jobs pay well, but require advanced education.

²David Autor, "Why are There Still So Many Jobs?" Journal of Economic Perspectives, Summer 2015. As an example the author points out that, while windshield installation in new cars is commonly done by robots, windshield replacement and repair remains a human task, involving a higher level of communication and adaptation.

³The data are shown in 2-digit SOC (Standard Occupational Classification) codes, different from NAICS industry codes. The 2-digit categories refer to occupational groups rather than specific occupations.

⁴Any LQ above 1.0 (such as 1.39 for healthcare practitioners) indicates more jobs locally than the U.S. average; lower scores (such as the lowest, 0.76 for production occupations) suggest fewer jobs in the sector than average.

UAMS BioVentures

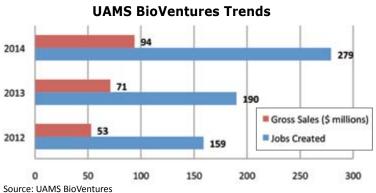
BioVentures is a business incubator on the campus of the University of Arkansas for Medical Sciences (UAMS). Founded in 1998, BioVentures is a small (five employees) group that gives Central Arkansas a footprint in biotechnology, one of the most promising segments in the global economy. BioVentures develops commercialization pathways for innovations made by doctors, nurses, researchers and other employees at its member hospitals.1

UAMS employees are encouraged to submit their successes and promising ideas for evaluation of their commercial potential. Once a promising innovation has been selected, BioVentures devises a pathway to market. While services and procedures can be developed fairly quickly, medical devices and drugs take longer. Biotechnology demands patience, since testing and FDA approval can take many years.

Once a venture starts to gain traction, issues of ownership and conflict of interest arise. Having used UAMS expertise and equipment, would-be inventors have an obligation to their employers. At the same time, under the Bayh-Dole Act of 1980, publicly-funded research organizations are required to commercialize their innovations. Much of the legal turf involves patents and copyrights. Some researchers prefer to license the rights to a company and get back to work. Others become entrepreneurs, leaving UAMS to set up new companies. One of BioVentures' greatest challenges is handing off fledgling companies from origins within a large organization to a separate, free-standing business. Like the parent of a teenager, BioVentures must balance nurture against the need to let go, encouraging its "children" to set off on their own. All this careful balancing is, however, beginning to show definable results.

The Jobs Question

The figures below, provided by BioVentures, show a growing impact. By 2014, 279 jobs had been created in enterprises developed through BioVentures. In the three-year period depicted in the chart, sales in these companies grew by 77 percent, while jobs grew 75 percent. The table below conveys job trends in two local NAICS sectors that can be correlated with biotechnology.² Regional jobs in pharmaceutical manufacturing nearly quadrupled from 2010 to 2014. In scientific research, local jobs have generally grown about 22 percent in the 2010-2015 interval. Both sectors remain comparatively small in Central Arkansas, with a below-average concentration of jobs.3 But the growth trend is unmistakable.



Possible Biotechnology-Related Jobs in Central Arkansas

Sector	NAICS	Jobs 2010	Jobs 2014	Jobs 2015*	Data Source
3254	Pharmaceuticals	38	149	N/A	LEHD
5417	Scientific Research	265	420	325	DWS

Sources: U.S. Bureau of the Census, Longitudinal Employment-Household Dynamics (LEHD), and Arkansas Department of Workforce Services (DWS).

BioVentures Spinoff Companies

Acetaminophen Toxicity Diagnostics Air Toco **Angel Eye Camera Systems Balm Innovations** ContourMed CTEH

eDoc America Elder Stay At Home **EZRA Innovations HD Nursing** InterveXion Therapeutics IRV (Veinviewer)

Mesolight Mitogene Naptime Academy PhytoTek **RxResults**

Safe Foods

Signal Genetics Stage I Diagnostics Tocol Pharmaceuticals, LLC Type IV Technologies

¹Located on the UAMS campus, BioVentures also works with Arkansas Children's Hospital and the VA hospitals.

2NAICS = North American Industrial Classification Standard, representing the Little Rock-North Little Rock-Conway MSA. The data sources are the Census Bureau (LEHD) and the Arkansas Department of Workforce Services.

^{*} Jobs represent the first quarter of 2015.

³Based on Location Quotient analysis against the U.S. average and the four-state region (Arkansas, Louisiana, Oklahoma and Texas).

Tocol Pharmaceuticals

The story of Tocol Pharmaceuticals involves two scientists working together, an "aha" moment at a seminar, the Amazon rain forest, and an alliance between UAMS and a university in Ecuador. While the story is fascinating by itself, it's the result that matters most: two UAMS scientists, Dr. Cesar Compadre and Dr. Philip Breen have invented a new form of Vitamin E that combats radiation poisoning.

Radiation damages the bone marrow that generates the body's blood, and can yield anemia, weakened immunity, and uncontrolled bleeding. The dangers and side-effects of radiation therapy have been a major obstacle in cancer treatment. Before now, the only medicine that really helped radiation victims was iodine, and this only treated radiation-related thyroid problems.

The new drug, tocoflexol, could be used to treat radiation poisoning more effectively than anything yet devised. The drug remains very expensive to synthesize, so Tocol Pharmaceuticals, using rain forest biology, developed an alternative product, named DG3, that can be produced at a small fraction of the cost of tococoflexol. In addition to being a tool to protect in case of nuclear accidents and terrorism, DG3 could also be helpful to protect cancer patients undergoing radiotherapy. BioVentures is helping the scientists through a lengthy development process, which requires large amounts of capital, familiarity with patenting and intellectual property, and the business acumen to turn research work into a real-world product. By bridging the gap between science and business, BioVentures has helped the scientists do what they do best, gaining the well-deserved fruits of their labor and getting a new product to market.

Wisdom from the Rain Forest

Dr. Cesar Compadre has visited Ecuador four times over the past year. He makes it very clear that his relation with the rain forest and its native people is not "go and take." The processing facility that renders tocoflexol extract from a native plant will be located in Ecuador, providing jobs for an underdeveloped economy. The extract provides superior yields when it is fresh, and refining it locally reduces energy transport costs (and carbon waste). Working with locals in Ecuador, Dr. Compadre has helped establish that country's first graduate chemistry program, modeled on the one at UALR.

Dr. Cesar Compadre in Ecuador with traditional healer Mama Ines in her medicinal garden. Photos courtesy of Dr. Compadre.

Dr. Compadre has found much wisdom in the healing practices of traditional cultures. Free from constraints imposed by the slow, linear scientific method, native experts have their own clues for identifying useful substances in the rain forest. Their herbal wisdom is often later validated through scientific means. Tocoflexol is probably just the beginning. Dr. Compadre has patented a new drug that treats leukemia, although FDA approval will take time. By working with a native culture, and listening to its knowledge, Dr. Compadre has forged a relationship between Ecuador and Arkansas that will benefit both.



Dr. Compadre trying a preparation from a traditional healer from Ecuador.

⁴In October, 2015, a Nobel prize was bestowed on Chinese scientist Tu Youyou, who consulted herbal medical knowledge from 340 B.C. for help with clues in developing artemisinin, a drug that combats malaria. "Wisdom, Ancient and Modern." *Economist*, October 10, 2015.

Center for Toxicology and Environmental Health

Train derailments, chemical plant fires, terrorist incidents, pipeline leaks... these and similar disaster stories are familiar in the news. You probably didn't know that, when these accidents happen, CTEH—an industry-leading company based in Central Arkansas—is often called to help. CTEH, which stands for "Center for Toxicology and Environmental Health," keeps a plane at Central Arkansas Flying Service that can be airborne within two hours of

a call. When they arrive at the scene, CTEH scientists do the vital testing and information-gathering, helping to determine safety and health risks by analyzing conditions and taking samples of soil, sediment, water and air. CTEH does not perform clean-up, but instead advises and informs first-responders and clean-up crews.

Name a major incident in recent years, and chances are CTEH has been involved: the Deepwater Horizon oil

disaster (CTEH's largest-ever response), the Mayflower oil spill, the Lac Megantic rail disaster in Quebec, and even the aftermath of 9/11. CTEH is often called on by companies and government agencies like EPA and state health departments for disaster response and expert testimony.

CTEH stands by its reputation of "calling it like it is," based on a transparent and sound scientific evaluation of data collected as described in plans and protocols from multiple stakeholders, including health and environmental regulatory agencies. Gandhi once said "the best way to find yourself is to lose yourself in the service of others." This quote, and others like it, are kept on display in CTEH headquarters.



Founding partner Dr. Phillip Goad shows testing kits and equipment which CTEH keeps ready for emergency deployment.

CTEH has about 150 employees across the U.S., with 75–80 at its North Little Rock headquarters in the Northshore Business Park, and offices in New York, Houston, New Orleans, Denver, Seattle, Jackson (MS), Nashville, and Indianapolis. The Arkansas headquarters benefits from centrality; CTEH can get its plane to sites almost anywhere in the U.S.A. except the far west without a refueling stop. CTEH likes its location in the Northshore Business Park, with access to recreational trails, and easy commuting on the opposite end of predominant traffic flow. CTEH is

an employee-owned firm, which fits with a core belief that workers who think and act like owners are bettermotivated, more conscious of costs, and more concerned for quality results. The company has been growing at a 15 percent annual rate for several years now.

CTEH got its start in 1997 as a member of BioVentures; once housed on-site, it has become completely independent

although still informally associated with UAMS. If "environmental consulting" sounds dull, think again. CTEH is a leader in its field, with beginnings in health care and research in Central Arkansas. **M**



CTEH makes its home in North Little Rock's Northshore Business Park.

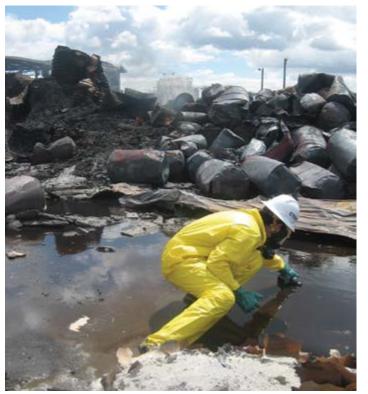


Photo courtesy of CTEH.

High Finance The Bond Sector in Central Arkansas

One of the most competitive economic sectors in Central Arkansas is NAICS 5231, Securities and Commodity Brokerage, or "the bond market." Two firms dominate this business in Arkansas, both based in Little Rock: Crews and Associates, and Stephens Inc. Given their economic importance to the local economy, Metroplan decided to take a closer look.1 A bond is basically a kind of loan, designed to reduce the customer's risk from interest-rate changes, and often stretched out over a longer timeline than ordinary bank loans. Public institutions can issue bonds on tax-exempt terms, which reduces cost.

Little Rock isn't a financial behemoth like New York, Chicago or Charlotte, but it holds a niche. Local firms like

Crews and Associates are known for their independent thinking. Rush Harding, CEO at Crews, points out his firm is rarely leveraged beyond a 1:1 ratio. Leverage (debt) works fine most of the time, but "it can compound losses if not



Crews and Associates (top of image) is at home in Little Rock's River Market District.



The sales floor at Crews and Associates. (photo, Crews and Associates)

managed properly, " as Rush says. "We do best when thinking and experience matter, when there is turmoil and uncertainty in the market." A good example was in the aftermath of the 2008 global meltdown, when the firm did well as financial markets were forced to unleverage themselves.

When asked why his firm is in Little Rock's River Market District instead of

a less costly suburban office park, Rush cites the old real estate rule "location, location, location." River Market has nice working and living conditions, generating energy and creativity for his staff. M

The new Donaghey Hall project at the University of Central Arkansas (UCA) provides a timely example of bond finance in action. The new structure will combine dormitory and retail space in a mixed-use format. The university hopes the hall will serve a place-making role, feeding further walkable, mixed-use, high-quality development along Donaghey Avenue. Little Rock-based Crews and Associates will provide the bond financing, which UCA will pay back over time through dormitory fees, rental on retail space, and other related income sources.



Image courtesy of UCA Magazine.

¹Metroplan analysis shows the region has gained jobs in NAICS sector 5231 over the past five years, despite net job loss at the national level. The local location quotient was 1.88, meaning there are 88 percent more jobs in this sector than the U.S. average.

Creative Spaces, Creative Minds

On September 14, 2015, the City of Little Rock officially dedicated the Creative Corridor along Main St. Several creative enterprises, including the Arkansas Symphony Orchestra, Ballet

Arkansas and others, are in the process of relocating and will be within walking distance of one another along Main St. The project is made possible by a combination of federal, state, local and private money. The investments include office and rehearsal space, apartments, restaurants and businesses.

If you visit the corridor, look closely. It's not just a pretty street, it's a LID (Low Impact Development) demonstration project. Much of the pavement is permeable, with bioswales and treebox filters to absorb and cleanse stormwater runoff before it drains into the Arkansas River. With the help of grants from the EPA and the Arkansas Natural Resources Commission, the city has installed green infrastructure to enhance stormwater runoff and provide a pleasant walkable environment lined by plants and trees. The street has been redesigned along Complete Street principles, blending access by motor vehicles, bicycles and pedestrians. It also allows space for outdoor dining and social gatherings. Visual and spatial cues emphasize the city's symbolic core at the corner of Main and Capitol, the center of a revitalizing downtown. M



Actors rehearse for The Putnam County Spelling Bee in the Rep's new Education Annex on Main Street. Photo courtesy of the Rep.



The new rain gardens confer street appeal to outdoor diners at Samantha's Tap Room on Main Street.



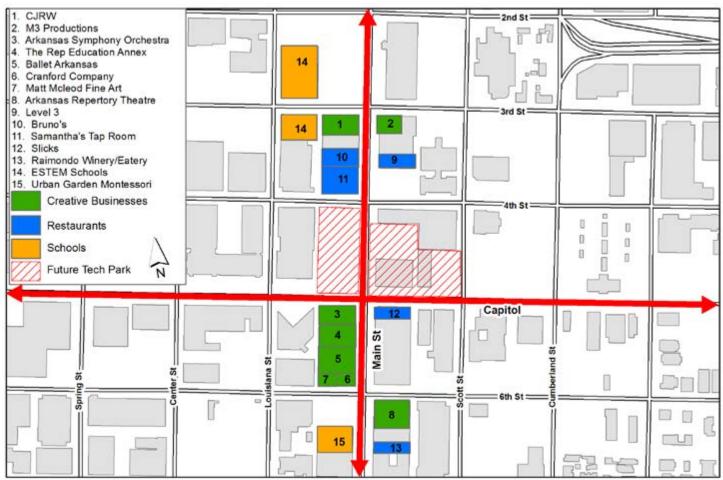
A colorful mural by artist Matt McCleod brightens the building that is now home to Bennett's Military Store. Right: A large Allee Elm tree is lowered into place as part of the bioswale. These trees put down deep roots and can live longer than the trees typically planted in urban settings. Photos: City of Little Rock.



Creative Corridor Initiatives Stakeholder Participation Timeline

MAYOR'S INSITUTE ON CITY DESIGN FPA GRANT EPA/ ANRC 319 (h) GRANT A National Endowment for the Arts Greening America's Water Quality Demonstration and Educaleadership Initiative Capitals tional Program for Main Street Little Rock ARTPLACE & EDUCATIONAL **NEA OUR TOWN GRANT** FOUNDATION OF AMERICA A National Endowment for the Arts creative placemaking initiative Support creative placemaking and help facilitate the Arts

The Creative Corridor



The Creative Corridor is a catalyst for growth and walkability in all directions. It also includes Little Rock Tech Park. Main Street will be the eastern boundary of the Financial Quarter sponsored by regional banks and Little Rock's Downtown Partnership.



A quartet from the Arkansas Symphony Orchestra performed during the Creative Corridor grand opening in October 2015. Photo: City of Little Rock.



The improved landscaping, businesses and restaurants are making Main Street a destination again. Photo: City of Little Rock.



Mayor Mark Stodola and the City of Little Rock are key partners in the project. Photo: City of Little Rock.

Local Housing Market Holds Steady, With Hints of Multi-Family Surge

Regional housing construction held steady through the first half of 2015. The table shows that single-family construction gained a bit compared with the first half of 2014, while multi-family was marginally lower. Neither change was large, and total units built (1,107) was about the same as in 2013 and 2014.

In single-family housing, most cities in the region gained in early 2015. In the first half of 2015, both Little Rock and Sherwood saw the most single-family units permitted since the same period in 2008, Hot Springs Village the most since 2010. Others were also up, except Jacksonville and Maumelle. The chart at middle right, opposite page, provides an index of the trend in regional single-family housing through September of 2015 compared with the U.S. trend. As you can see, the U.S. has continued outperforming the local region since the middle of 2012.

Local multi-family housing might be rebounding. The next chart on top on the opposite page compares the annual trend in multi-family construction 2010-2015 for the U.S. and the local region. After sagging 2013-2014, preliminary data show the region climbing above its long-term average, reaching an index of 1.18 for 2015.¹ Comparable U.S. figures also show continuing multi-family growth. Local construction in 2015 includes new units in Little Rock along Kanis Road in western Little Rock, additional units at Bowman Pointe along Bowman Road in southwestern Little Rock, and a small complex in downtown Little Rock. New units are being added at the Villas at River Pointe in Maumelle. In August, Benton permitted 620 units near the Longhills Golf Course.



Multi-family construction at the Villas at River Pointe in Maumelle.

Slow housing growth over the past several years may be about to accelerate, at least in the multi-family sector. A renewal of job growth might be one factor behind an upward trend already discernible in 2015. Anecdotal evidence suggests more multi-family projects may be coming soon. **M**

Half Year (January-June) Housing Unit Permits 2011-2015

Single-Family

	2011	2012	2013	2014	2015
Benton	78	101	117	96	101
Bryant	73	69	64	32	32
Cabot	45	48	65	28	45
Conway	82	86	76	62	83
Hot Sprgs Vill	26	28	25	22	37
Jacksonville	16	15	15	20	18
Little Rock	180	168	188	186	193
Maumelle	34	41	41	31	12
N Little Rock	80	87	55	31	46
Sherwood	54	69	73	70	74

Multi-Family

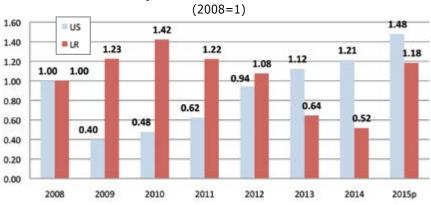
Į.	2011	2012	2013	2014	2015
Benton	0	0	0	0	0
Bryant	22	26	0	0	0
Cabot	0	0	0	0	19
Conway	0	40	94	61	6
Hot Sprgs Vill	0	. 0	0	0	0
Jacksonville	0	6	0	12	0
Little Rock	514	207	259	469	370
Maumelle	0	0	0	0	108
N Little Rock	312	0	96	2	0
Sherwood	0	0	.0	0	0

Regional Totals

	2011	2012	2013	2014	2015
Total SF	642	684	694	556	604
Total MF	848	279	449	544	503
Grand Total	1,490	963	1,143	1,100	1,107

¹The preliminary figures for 2015 were extrapolated from the first three quarters.

Multi-Family Construction Index 2008–2015

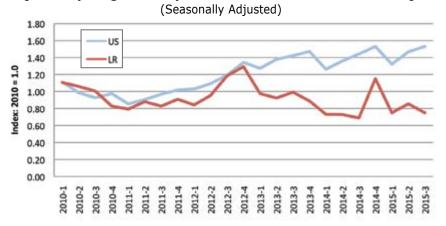


Source: U.S. Bureau of the Census and Metroplan housing records; index by Metroplan. Figures in red are preliminary projections, based on first 3 quarters of data.



Large, high-value homes, like this one in Maumelle are accounting for a sizeable share of single-family construction in the region.

Quarterly Single-Family Construction Trend 2010-2015 Q3





Socioeconomic Statistics 2014-2015

Average Res. Employment 2014	320,525	54,825	7,675	30,500	3,925	172,575	51,025
% Unemployment	5.5%	5.7%	5.5%	5.2%	7.6%	5.6%	4.9%
New Industries 2014-15**	5	1	0	0	0	4	0
Expanding Industries 2014-15**	13	1	0	0	0	12	0
Bank Deposits 2015 (\$ 1,000)*	\$16,448,780	\$6,236,869	\$103,247	\$445,321		\$9,457,904	\$205,439
Bank Assets 2015 (\$ 1,000)*	\$20,430,967	\$7,833,321	\$121,657	\$616,618		\$11,617,296	\$242,075

Sources: Arkansas Department of Workforce Services, Arkansas Economic Development Commission, and FDIC. Rounding may cause some unemployment rates to differ slightly from DWS data.

^{*}Bank data exclude assets and deposits held by banks serving the area but based outside the Little Rock-NLR-Conway MSA. Bank deposit and asset data represent March 30, 2015.

^{**}New and Expanded industries as announced by the Arkansas Economic Development Commission, over period October 2014 through September, 2015.

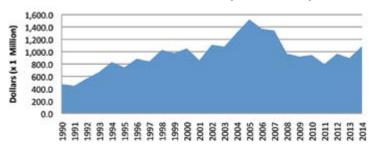
Construction Value Trends

The year 2014 saw total construction activity rising in Central Arkansas. It is now clear the year 2011 marked the most recent trough, from which values have slowly climbed. The year 2014 was still below the regional peak in 2005, in both nominal and inflation-adjusted terms. The pace of activity ten years ago represented a financial bubble, whereas the recent trend appears more solid.

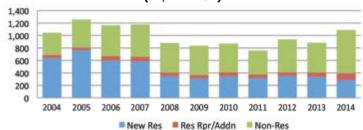
Commercial construction ("Non-Res" in the chart) has continued rising, accounting for 64 percent of the total in 2014. New residential construction dropped again in 2014 to just 26 percent of the total, down from a peak of 61 percent in the boom year 2005. Residential repair/addition has climbed, suggesting it has made sense for many homeowners and housing investors to shift toward rebuilding, retrofitting and maintenance in preference to new construction.

The chart at bottom depicts a metric not shown before: total inflation-adjusted construction value for the region's three largest cities (Little Rock, North Little Rock, and Conway) against "rest of metro" (the outlying cities of Sherwood, Benton, Jacksonville, Cabot, Maumelle and Bryant).¹ The chart shows even-numbered years only, for the sake of simplicity.² In 2004 Little Rock accounted for 45 percent of construction value, while the "rest of metro" category accounted for the second-largest share, 35 percent of total value. Over the years this has changed. Little Rock had climbed to 55 percent by 2014, followed by North Little Rock, which had doubled its share from 7 percent in 2004 to 14 percent in 2014, boosted by school construction in the North Little Rock District. Conway held

Construction Value LR-NLR-Con MSA 1990-2014 (2014 Dollars)



Permit Values by Type 2004-2014 (x \$1 Million)

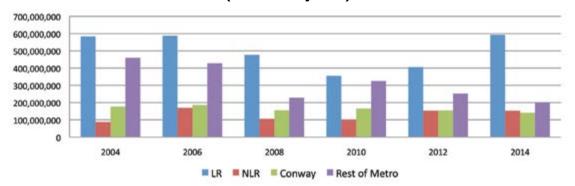


Figures represent nine largest cities in LR-NLR-Conway MSA.



A major rebuild is expanding and improving Robinson Auditorium in downtown Little Rock

Total Construction \$ Value 2004-2014 (Inflation-Adjusted)



¹All years adjusted to 2014 dollars.

²The trend for odd-numbered years follows a similar pattern.

roughly steady, from about 14 percent in 2004 to 13 percent in 2014. The "rest of metro" group had dropped steadily to 19 percent, barely over half its share in 2004.

The next two charts depict trends in single-family housing. Median home value dropped slightly from its highest-ever figure in 2013, but remains high compared with past years.³ Similarly, the median square footage of new homes dropped slightly from 2,772 square feet in 2013 to 2,733 in 2014, still well above the U.S. average. It appears that, while overall single-family housing construction has slowed, many of the smaller number of newly-built homes are large, expensive structures built for high-end customers. For homebuyers closer to middle income levels, resale housing is more affordable.

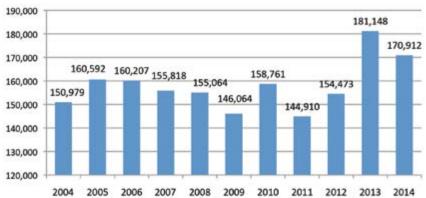
Among regional cities, Little Rock now has the most expensive new single-family homes, followed by Maumelle and Conway. The Saline County cities of Bryant and Benton rank next, while the northeastern vector (North Little Rock, Sherwood, Jacksonville and Cabot) generally shows lower new-construction values.

Construction value trends give a useful handle on regional investment choices and trends in real estate markets, but tell us only about the past. Signs of faster employment growth in the regional economy may signal a new cycle, which could shift investment priorities in new but unpredictable directions in years to come. M

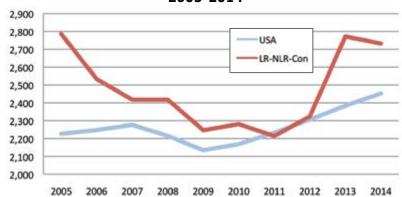


The North LIttle Rock School District's program to improve and replace school buildings has boosted construction activity.

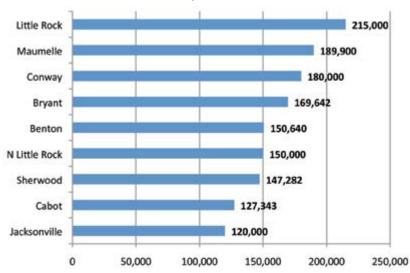
LR-NLR-Con MSA Median New Home Value by Year 2004-2014



Median Square Footage of New Single-Family Homes 2005-2014



New Single-Family Units Permit \$ Value 2014



³Note that values differ from previous reports due to an adjustment in base data (the region's 9 largest cities, now including Cabot).

Economic Health

The Private Option and Central Arkansas Health Care

Health care accounts for 35,600 workers in Central Arkansas, or about 14.5 percent of all jobs—well above the U.S. average of 10.7 percent. It makes sense, then, that major changes in health insurance law and funding will disproportionately affect the local economy. In early 2013 the Arkansas General Assembly passed the so-called "Private Option," a state

variant of federal Medicaid expansion. The new policy has been in place long enough to be measured statistically, and the figures show a major change.

The chart below compares health insurance rates for the population group most affected: adults age 18 to 64. As a comparatively prosperous region, the Little Rock-North Little Rock-Conway MSA had health insurance statistics

"After the coverage expansion last year, we dropped to about 3% of our patients being uninsured [from 14%]. That has greatly improved the fiscal health of our system."

—UAMS Chancellor Dr. Dan Rahn, interviewed in Modern Healthcare, April 27, 2015 roughly on par with the national average, around 80 percent in 2009. This has now risen to almost 85 percent. The State of Arkansas had a lower share of insured residents (about 75 percent), but has seen the largest climb in insured residents among all 50 states, to nearly 83 percent of residents aged 18 to 64 insured by 2014.

This has yielded more health care delivery. At UAMS, for example, outpatient visits have increased by 15 percent, and inpatient care has gone up 6–7 percent. The benefits are more than abstract figures. About 223,000 low-income Arkansans have gained health insurance. More people are getting care, and the number of less expensive preventive outpatient visits has grown faster than inpatient care. As the state's dominant provider of health care, the Central Arkansas region also stands to benefit economically.

Share of Population Age 18-64 with Health Insurance 2009-2014

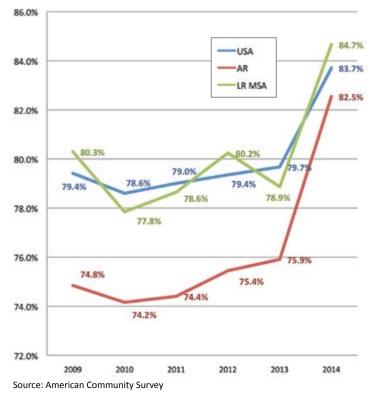




Photo: UAMS

By the numbers: Arkansas insurance expansion

- 223,000: the approximate number of low-income Arkansans who have gained health insurance under the private option
- 9.1 percent: Arkansas' uninsured rate at present down from 22.5 percent in 2013
- \$1.4-\$1.7 billion: amount of new federal healthcare funding coming into Arkansas annually between 2014 and 2020
- \$149 million: reduction in uninsured costs by hospitals

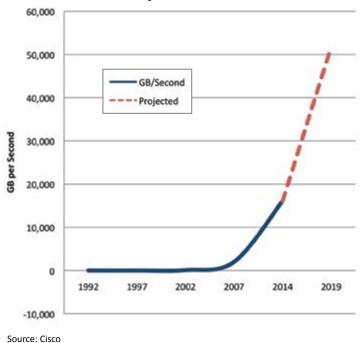
Source: UAMS

Economic Outlook 2016

The Central Arkansas economy has strengthened during 2015. During August the region tied with Birmingham, Alabama for 52nd spot among U.S. metros for percent job growth. The recent reversal of labor force decline suggests the local economy may be offering enough new jobs to lure back some of the long-term unemployed. After rising since 2008, regional average household size dropped slightly in 2014.¹ This indicates improving economic conditions are encouraging new households to form. There are whispers of sizeable multi-family projects breaking ground in 2016.

During the first half of 2015, percentage job growth in Central Arkansas outpaced the generally dynamic Northwest Arkansas metro area. The world's largest retailer is no longer growing at an exponential pace. In a small state, the economic consequences will extend beyond the Northwest region, and linkages could put a damper on growth in Central Arkansas, too.

Global Internet Traffic 1992–2014 Projected to 2019



What about the future of jobs? The idea of a "job" has always been malleable, and will continue to change. The chart below shows a Cisco Corporation projection for global internet traffic. As you can see, if you thought things have changed since the early 1990s—and they have—the process continues on an exponential vector. Those who can harness this information explosion are virtually guaranteed to prosper. Economic metrics really measure the past; by definition an economy is constantly reinventing itself through the actions—large and small—of all participants. Inventing your job, or a way to keep your job relevant, may be the key to success in a future where the definitions are more creative and less specific.

Occupational projections by the U.S. Bureau of Labor Statistics show that the fastest job growth through 2022 will probably be in health care fields, particularly Healthcare Support (+28 percent) and Healthcare Practitioners and Technical (+22 percent). The third-largest growth sector will be Computer and Mathematical jobs (+18 percent).² The region already has more jobs proportionally in the latter two categories than the U.S. average, a promising signal because both pay higher-than-average wages.

The current U.S. growth cycle is aging, having already passed the previous economic recovery (2002–2008) in duration. From September 2014 to September 2015, the CPI was flat.³ Zero inflation may seem enviable to veterans of the "Great Inflation" from the late 1970s through early 1980s, but deflation poses dangers too. Low energy prices, a rising dollar, and U.S. Federal Reserve policies are part of this equation, while annual core inflation remains around 2 percent.

The biggest economic story of 2016 will probably be the projected rebuilding and widening of the I-30 corridor through downtown Little Rock and North Little Rock, involving sums estimated in the hundreds of millions of dollars. Construction may begin by 2018. The one-time infusion of construction dollars will boost the regional economy over the next five years, but the consequences of decisions taken will last more than fifty.

¹American Community Survey 2014 and previous years. PPH dropped from 2.66 in 2013 to 2.61 in 2014, with a margin of error in each case of 0.03.

²Metroplan provides an addendum, on p. 18, of statistics from its occupational analysis of the regional economy.

Federal Reserve Bank of St. Louis. CPI in September 2015 was 237.57, marginally lower than 237.63 in September of 2014.

Statistical Supplement

The tables on this page provide some extra statistical depth for the occupation analysis featured in this edition. The U.S. projections to 2022 cover all occupations at the more generalized (2-digit) level, using the SOC codes. The data for the Little Rock-North Little Rock MSA cover detailed occupations, but only the top 20 out of 538 listed for the region by the U.S. Bureau of Labor Statistics. The **New and Expanded Industries** table is similar to tables published in previous editions of the Metrotrends Economic Review and Outlook.

Top Twenty Occupations for Growth LR-NLR-Con MSA

(Detailed occupations, Ranked by Absolute Job Growth 2012-2014)

Rank	Job Occupation Growth Percent Code		100 000 00 March 100 00 00 00 00 00 00 00 00 00 00 00 00	Title
1	1,810	287.3%	13-1199	Business Operations Specialists, All Other
2	1,180	368.8%	13-1111	Management Analysts
3	1,040	14.9%	41-2011	Cashiers
4	890	129.0%	15-1121	Computer Systems Analysts
5	760	13.6%	35-3031	Waiters and Waitresses
6	750	394.7%	25-1071	Health Specialties Teachers, Postsecondary
7	740	8.7%	43-9061	Office Clerks, General
8	720	1440.0%	13-1041	Compliance Officers
9	710	33.8%	35-2011	Cooks, Fast Food
10	690	191.7%	13-1071	Human Resources Specialists
11	650	86.7%	43-6013	Medical Secretaries
12	490	24.0%	13-2011	Accountants and Auditors
13	490	75.4%	31-9092	Medical Assistants
14	490	15.0%	39-9021	Personal Care Aides
15	470	42.3%	15-1151	Computer User Support Specialists
16	430	12.9%	41-1011	First-Line Supervisors of Retail Sales Workers
17	410	19.9%	39-9011	Childcare Workers
18	390	300.0%	13-2051	Financial Analysts
19	380	21.6%	23-1011	Lawyers
20	370	20.1%	47-2061	Construction Laborers

Source: U.S. Bureau of Labor Statistics, rankings by Metroplan.

Projections for Major U.S. Occupation Groups

Ranked by Total Job Growth 2012–2022 (Jobs in Thousands)

Rank	Occupation Group	2012	2022	Growth	Percent
1	Healthcare practicioners and technical	8,049.7	9,782.6	1,732.9	21.5%
2	Office and administrative support	22,470.1	24,004.1	1,534.0	6.8%
3	Construction and extraction	6,092.2	7,394.1	1,301.9	21.4%
4	Healthcare support	4,110.2	5,266.0	1,155.8	28.1%
5	Personal care and service	5,375.6	6,498.5	1,122.9	20.9%
6	Food preparation and serving	11,780.1	12,881.9	1,101.8	9.4%
7	Sales and related	15,105.0	16,200.5	1,095.5	7.3%
8	Education, training and library	9,115.9	10,131.7	1,015.8	11.1%
9	Business and financial operations	7,167.5	8,065.6	898.1	12.5%
10	Transportation and material moving	9,245.7	10,036.3	790.6	8.6%
11	Building and grounds cleaning and maint.	5,522.3	6,213.3	691.0	12.5%
12	Computer and mathematical	3,814.7	4,500.5	685.8	18.0%
13	Management	8,861.5	9,498.1	636.6	7.2%
14	Installation, maintenance and repair	5,514.8	6,046.0	531.2	9.6%
15	Community and social service	2,374.7	2,783.5	408.8	17.2%
16	Protective service	3,325.3	3,588.3	263.0	7.9%
17	Arts, design, entertainment, sports and media	2,570.9	2,751.5	180.6	7.0%
18	Architecure and engineering	2,474.5	2,654.1	179.6	7.3%
19	Legal	1,247.0	1,379.9	132.9	10.7%
20	Life, physical and social science	1,249.1	1,374.8	125.7	10.1%
21	Production	8,941.9	9,017.5	75.6	0.8%
22	Farming, fishing and forestry	947.2	915.0	-32.2	-3.4%

Source: U.S. Bureau of Labor Statistics.

New and Expanded Industries October 2014-September 2015

Major Category	NAICS	New	Company	City	County	Product or Service
33-33 Manufacturing	313230	54	Kimberly Clark Corporation	Maumelle	Pulaski	consumer hygiene products
	325412	. 12	EZRA Innovations LLC	Little Rock	Pulaski	manufacturing research and development
05	326199	10	Plastic Ingenuity, Inc.	Maumelle	Pulaski	plastics
3	332722	. 17	Grandeur Fasteners, Inc.	Little Rock	Pulaski	screws and bolts
	333415	15	Essick Air Products	Little Rock	Pulaski	humidifiers and evaporative coolers
8	334417	D	Molex, Inc.	Maumelle	Pulaski	electronic connectors.
<u> </u>	334417	136	Molex High Performance Cable	Maumelle	Pulaski	wire connectors
10	336143	21	Deleware Resource Grp of Oklahoma	Jacksonville .	Pulaski	simulator flight training (maint, training devices)
	336411	200	Dassault Falcon Jét	Little Rock	Pulaski	falcon jet aircraft
(2)	336413	70	CYMSTAR Services ELC.	tacksomille	Puluski	US military contractor - aircrew training systems
Sec. 1 1 100.00	337110	85	Beaudet Aviation, Inc.	Little Rock	Pulaski	aircraft cabin interiors
49 Couriers and Messengers	492110	. 11	FedEx Ground Package System, Inc.	Mabelvale	Pulaski	couriers and express delivery services
54 Prof / Business Svcs	541511	20	Lindsey & Company, Inc.	North Little Rock	Pulaski	accounting software
	541511	40	Big Cloud Analytics	Conway	Faulkner	information technology
	541511	160	Metova	Conway	Faulkner	information technology
55 Management of Companies	551114	74	Ben E. Keith Company	North Little Rock	Pulaski	regional headquarters
	551114	20	American Taekwondo Assn	Little Rock	Pulaski	corporate headquarters
	551114	. 0	Fidelity National Information Svcs	Little Rock	Pulaski	corporate headquarters

Source: Arkansas Economic Development Commission.

2015 Metroplan Board of Directors

PRESIDENT

Mayor Randy Holland

City of Mayflower

City of Ward

SECRETARY

VICE PRESIDENT Mayor Gary Fletcher

City of Jacksonville

TREASURER

Mayor Jill Dabbs

Mayor Art Brooke

City of Bryant

Mayor Paul Mitchell City of Alexander

Mayor Bernadette Chamberlain

City of Austin

Mayor Bill Russell

City of Bauxite

Mayor David Mattingly

City of Benton

Mayor Bill Cypert

City of Cabot

Mayor David Graf

City of Cammack Village

Mayor Tab Townsell

City of Conway

Mayor Sammy Hartwick

City of Greenbrier

Mayor Janie Lyman

City of Haskell

Mr. Keith Keck

Hot Springs Village

Mayor Mark Stodola City of Little Rock

Mayor Wayne McGee

City of Lonoke

Mayor Mike Watson

City of Maumelle

Mayor Jonathan Hawkins

City of Mount Vernon

Mayor Joe Smith

City of North Little Rock

Mayor Mike Kemp City of Shannon Hills

Mayor Joe Wise

City of Sheridan

Mayor Virginia Young

City of Sherwood

Mayor Michael Nash

City of Traskwood

Mayor Terry Don Robinson

City of Wooster

Mayor McKinzie L. Riley City of Wrightsville

Mayor James Firestone

City of Vilonia

Judge Jim Baker Faulkner County

Judge Kemp Nall

Grant County

Judge Doug Erwin Lonoke County

Judge Barry Hyde

Pulaski County

Judge Jeff Arey

Saline County

Ms. Jessie Jones

Arkansas State Highway and

Transportation Department

Mr. Jarod Varner

Rock Region Metro



