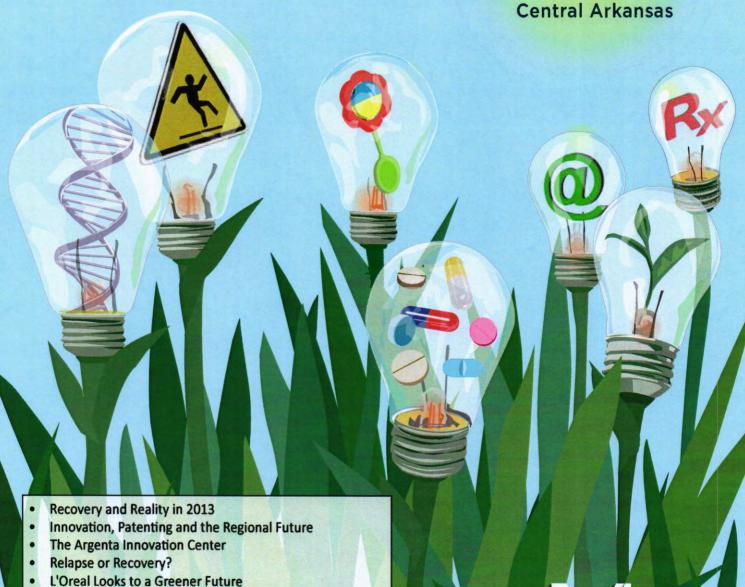
December 2013

METRO

Economic Review and Outlook

Growing the Next Big Ideas

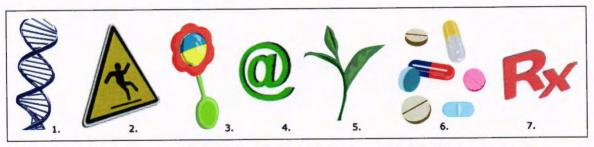
Entrepreneurship in Central Arkansas



- Where the Young Adults are Landing
- UAMS BioVentures—A Growing Local Success Story
- Professionalism Meets Entrepreneurship with HD Nursing
- Slow Housing Market During First Half of 2013
- Construction Value Trends
- Economic Outlook 2013–2014

METROPLAN

SMART PLANNING MAKES SMART PLACES.



On the Cover: UAMS BioVentures assists researchers with licensing and commercialization of their research and inventions. (See articles on pages 12 and 13.)

- Researchers use genetic tools and methods to resolve a variety of health issues, including better treatment of infectious diseases and treatment of cancer through personalized medicine.
- 2. HD Nursing provides procedures to minimize falls in the hospital (p13).
- Angel Eye enables families to see (and speak to) their baby in the neonatal intensive care unit via a secure camera system using their phones or computers (p12).
- 4. The Internet is a large part of many recent technologies resulting in the creation of the UAMS Apps Community, a collaboration between UAMS researchers/doctors and UALR app developers to enable the development and testing of medical apps.
- Balm Innovations has created a skin cream from tea tree oil, which comes from Australia's Melaleuca tree and has a long history as an effective treatment for many skin maladies. The cream is now available on-line and in some stores.
- 6. Recent inventions include new medications, new methods for drug discovery and development of better diagnostics.
- RxResults is a BioVentures company whose mission is to reduce prescription costs for healthcare payers and patients, while ensuring quality prescription results

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

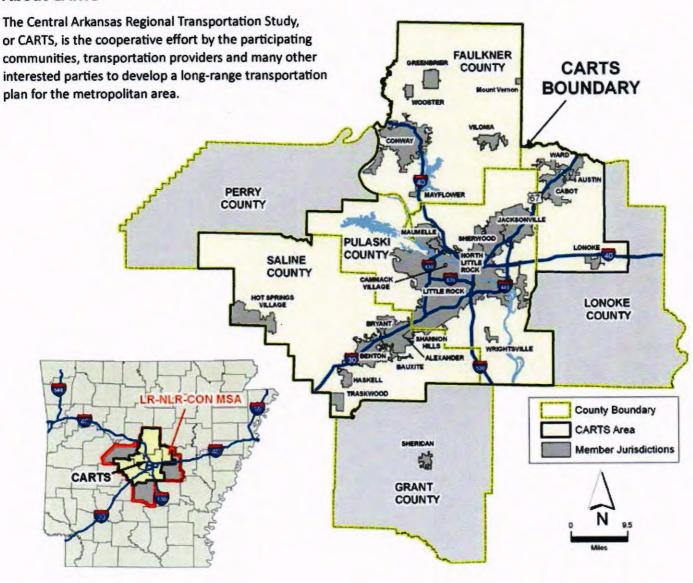


Table of Contents

Recovery and Reality 2013	. 1
Innovation, Patenting and the Regional Future	. 4
The Argenta Innovation Center	. 5
Relapse or Recovery?	. 6
L'Oreal Looks to a Greener Future	. 8
Where the Young Adults are Landing	10
UAMS BioVentures—A Growing Local Success Story	12
Professionalism Meets Entrepreneurship with HD Nursing	13
Slow Housing Market During First Half of 2013	14
Construction Value Trends	16
Economic Outlook 2013–2014	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

Judy Watts: editing

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.

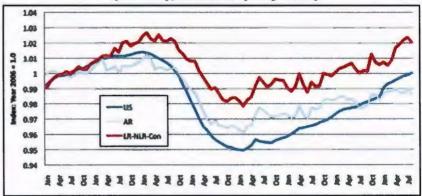
This report was funded in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation. The views and opinions of the authors expressed herein do not necessarily state or reflect those of the U.S. Department of Transportation.

Recovery and Reality in 2013

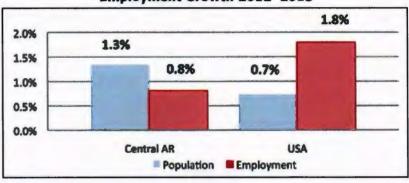
The Central Arkansas region continues climbing out of recession. The basic metrics—employment growth and rate of unemployment—have improved over the past year. Employment is still growing a bit more slowly than the U.S. average, but is running faster than the state average, which has accelerated somewhat over the past year. Unemployment was down to 6.5 percent by August 2013, still eight tenths of a point below the U.S. rate of 7.3 percent.¹ Seeing 6.5 percent local unemployment is a big improvement over a peak of 7.9 percent in early 2010 and summer 2011.

However, much of the local drop in unemployment owes to declining labor force participation, a sign that some individuals have opted out of the job market. Based on Metroplan population estimates and Arkansas Department of Workforce Services employment data, local job growth is running slower than local population growth. While U.S. job growth has a long way to go to make up Great Recession losses, it ran faster than population growth in the 2012–2013 interval, as shown at right.²

Employment Change 2006–2013 (Monthly, Seasonally Adjusted)



U.S. and Central AR Population and Employment Growth 2012–2013









Assisting veterans with workforce re-entry at The Hiring Our Heroes job fair in Little Rock, sponsored by the U.S. Chamber of Commerce Foundation

¹U.S. Bureau of Labor Statistics (not seasonally adjusted).

²Analysis for chart based on U. S. Census Bureau estimates for U.S. population and Metroplan estimates for regional population January 2012 and 2013, along with Arkansas Department of Workforce Services employment data for same dates (not seasonally adjusted).

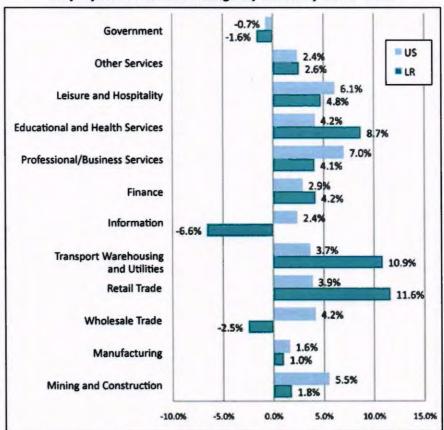
Recovery and Reality in 2013 (continued)

The Great Recession has caused some structural shifts to the local economy. The chart at right compares U.S. and Central Arkansas growth rate by industry sector over the past two years of recovery.

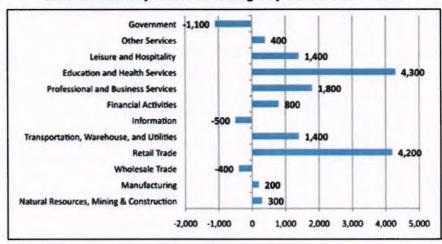
As you can see, the local area has suffered net job loss in the information sector, mainly a byproduct of downsizing in the local telecommunications sector. Wholesale trade has also continued to decline, even as recovery has set in at the national level. The region's outstanding success has been in retail trade, but this sector has lower-than- average income per job, and faces poor longterm prospects as e-commerce replaces a growing share of retail sales.3 Local growth has been below the U.S. average in both leisure and hospitality and professional and business services, but neither local sector suffered as badly as the U.S. average during the worst depths of the recession. Location quotient analysis suggests the local professional/ business services sector retains its traditional role as one of the regional strengths in the Central Arkansas economy. Local manufacturing finally managed to gain a few jobs during the 2011-2013 interval, but growth lagged the U.S. average.

The next chart looks at absolute job change by sector for the local economy. The two biggest job gainers, retail trade and education/health services, are service industries. While they are important players, recent economic literature suggests that "eds and meds" will not be the growth-builders for metro areas as they were in the past.

Employment Percent Change by Industry 2011-2013



LR-NLR-Conway MSA Job Change by Sector 2011-2013



³The implications might differ if Central Arkansas were a major player in e-commerce, but it is not.

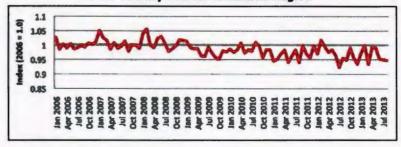
⁴Patenting Prosperity: Invention and Economic Performance in the United States and its Metropolitan Areas, Brookings Institution, February 2013, online at http://www.brookings.edu.

Entrepreneurship—Weakness and Opportunity

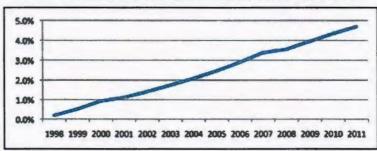
A recent Brookings Institution study ranked U.S. metropolitan areas by their share of patents issued per capita. The analysis demonstrated that the largest metros, and those with large research industries and entrepreneurial cultures, produced the most patents and saw commensurate gains in income. By this measure, the Central Arkansas region did not rank well. The region's job mix and anecdotal evidence suggest that Central Arkansas has some work to do building the kind of entrepreneurship culture it needs in order to build prosperity in coming decades.

On the other hand, investors know that buying an under-valued stock can be one of the fastest ways to build a portfolio. Local weakness can also be an opportunity, and there are positive signs that Central Arkansas is building an entrepreneurial culture. The region's comparatively low cost structure, coupled with average to above-average education levels, suggests potential synergy. Efforts are afoot, like the Argenta Innovation Center and the Little Rock Technology Park, to lay the groundwork for innovation within the region's promising urban nodes. One of the best local opportunities lies in biotechnology, a sector that is seeing above-average patent growth in the

Retail Sales Index Four-County Central Arkansas Region



U.S. E-Commerce as Share of Retail Sales 1998-2011



national economy. Articles on the following pages show how and why the local economy could be transforming itself. By capitalizing on its sizeable medical research basis at UAMS and Arkansas Children's Hospital, the Central Arkansas region has already raised eyebrows, with more opportunities in the pipeline. M

Retailing Transformation

As recently as the mid-1990s, retail trade was almost entirely a matter of people shopping at stores. The market was constantly shifting, first away from downtown locations to suburban centers, then toward big-box stores, but retailing always required a real estate footprint. That is no longer the case. As the chart above shows, U.S. e-commerce has grown relentlessly, to nearly 5 percent of retail sales by the 2011.

This trend has undoubtedly influenced local taxable retail sales, shown at top right. In absolute terms, regional retail sales climbed from about \$881 million in December, 2006 to \$1,039 million in August, 2013, a growth of 8.7 percent. The chart uses an index to adjust for seasonal change and inflation, showing an overall decline of 7.8 percent.⁵

Retailing was once a reliable component of land development, and retail employment has traditionally been a source of many low-skill, entry-level jobs. The charts on page 2 show that retail employment was one of the fastestgrowing sectors in Central Arkansas from 2011 to 2013, although some of this job growth represents "bounce-back" from losses during the Great Recession. Growth in e-commerce, and



There's still plenty of business at retail centers like this one in Bryant. Inflation-adjusted retail sales have grown slightly in outlying counties, despite the downward overall trend.

the downward vector of local in-store sales, suggest an uncertain future for retailing in Central Arkansas.

⁵The figures represent taxable retail sales from the Arkansas Department of Finance and Administration, and thus exclude online sales.

Innovation, Patenting and the Regional Future

In the years 2010 and 2011, U.S. patents reached new record highs. Even adjusting for population growth, the rate of patents per capita today rivals the previous U.S. patenting boom in the late 19th century. While the U.S. economy struggles to replace jobs lost since the Great Recession, there is a renewed emphasis on innovation that may overturn traditional assumptions about economic growth and regional competition.

During 2013, the Brookings Institution released a study⁶ on the link between innovation and metropolitan growth. This study provides useful metrics for regional comparison. It also gives some basic precepts for innovation-based regional economic development:

- Patenting activity is greatest in computer and information technology, electronics, biotechnology, energy and transportation
- Patenting is associated with higher metropolitan area productivity
- The main predictors of patenting activity are:

 (1) tech-sector workforce size;
 (2) presence of research universities;
 and
 (3) share of college graduates with degrees in STEM (science, technology and mathematics) fields

Patenting and Tech Comparisons of Selected South Central U.S. Metros

Metro	Rate	Annualiz	ed Growth	Share		
	Patents per 100 k Workers	Patents 1980-2010	Productivity 1980-2010	Tech Sector Employment	STEM BA Degrees	
Baton Rouge LA	19	-1.6%	0.8%	1.8%	7.8%	
Chattanooga TN	15	-1.0% 1.5%		2.4%	6.9%	
Fayetteville AR	24	4.2% 1.7%		2.6%	8.4%	
Jackson MS	8	2.5%	1.1%	2.2%	8.4%	
Knoxville TN	57	1.9%	1.4%	3.1%	9.3%	
LR-NLR-Con AR	14	2.4%	1.4%	4.1%	7.6%	
Tulsa OK	18	-0.4%	0.6%	2.5%	7.0%	

Source: Brookings Institution 2013.

- 1. Annualized growth represents average growth rate per year 1980-2010.
- 2. Share represents tech sector share of employment, and STEM BA degrees as proportion of population age 25+
- 3. Patent rate per 100,000 workers is derived from Brookings data on patents per 1,000 workers.

How does Central Arkansas stack up? Generally below average, but with the caveat that U.S. patenting is heavily dominated by a few large metro areas mainly on the coasts, distorting the comparison. The table above gives a few summary statistics for the two largest metros in Arkansas against selected southern metro areas of similar population size. Central Arkansas is weak in patents per 100,000 workers, but other state capitals like Baton Rouge and Jackson share this trait, while university towns like Knoxville and Fayetteville hold a slight advantage. Central Arkansas is also weak in STEM degrees, outranking only the Chattanooga area by this measure. However, Central Arkansas has some underlying advantages too: a larger share of tech-sector employment, and higher-than-average growth in productivity and patents from 1980 through 2010. M

New and Expanded Industries October 2012-September 2013

Major Category	NAICS	New	Company	City	County	Product or Service
22 Unlines	221122	60	Midwest Independent Transmission System Operator	Little Rock	Pulaski	corporate headquarters
31 - 33 Manufacturing	321113	0	West Fraser, Inc. (Leola Lumber Mill)	Leola	Grant	dimension lumber
	321600	7	Ring Container Technologies LLC	Little Rock	Pulaski	plastic containers
	325311	4	Stratton Seed Company	Carlisle	Lonoke	fertilizer
	325602	8	L'Oreal USA Products, Inc.	North Little Rock	Pulaski	cosmetics
	332913	0	Kohler Company	Sheridan	Grant	plumbing faucets, fittings and toilet seats
	332992	51	Remington Arms Company LLC	Lonoke	Lonoke	recreational ammunition
	332996	200	Welspun Tubular LLC	Little Rock	Pulaski	steel pipe
	335999	11	Power Technology, Inc.	Alexander	Pulaski	solid state and diode pumped solid state lasers
51 Information	518210	121	Privacy Star	Conway	Faulkner	information technology
54 Prof/Business Svcs	541614	5	Leisure Arts, Inc.	Maumelle	Pulaski	distribution center for published books
55 Management of Companies	551114	50	Inuvo	Conway	Faulkner	info tech
	551114	150	Fidelity National Information Services, Inc.	Little Rock	Pulaski	call center
72 Accomodation		0	Fairwood Hospitality Investors	Little Rock	Pulaski	tourism project
81 Other Services		18	Easter Seals	Little Rock	Pulaski	non-profit

Source: Arkansas Economic Development Commission

⁶Patenting Prosperity: Invention and Economic Performance in the United States and its Metropolitan Areas, Brookings Institution, February 2013, online at http://www.brookings.edu.

The Argenta Innovation Center





Most of the student employees at the Argenta Art Connection had previously not thought about going to college, but now they consider it a real possibility.

How do you *make* innovation happen? Human creativity is baffling, unpredictable, and often eccentric in nature. You can't *force* innovation, but you can provide supportive space and a collaborative, creative culture. This is what the Argenta Innovation Center (AIC) aims to do. It is an innovation hub, the brainchild of local leaders who understand how key ideas like "open-source" and the emerging "sharing economy" will be foundational for the economic future.

Three components will reside together in one building, sharing resources and expertise:

- The Silver Mine will be an informal co-work and idea-sharing space.
- Art Connection, already in action, pays selected students to generate art, learn working skills, and prepare themselves for the sort of education they will need.
- Launch Pad will provide space and equipment for aspiring inventors with full-time, part-time, and visiting memberships, addressing the key needs of innovators.

Launch Pad addresses the general need for "maker space," where an aspiring inventor can play with components and techniques, recognizing that:

- The typical invention improves through refinement and rework.
- The typical creative person with an idea hasn't nailed down every detail of turning it into a workable prototype.

 Innovators and hobbyists often lack specialized equipment.

The AIC will make 3-D printers, laser cutters, and other specialized software and equipment available to members. For their part, members must be willing not just to learn from others, but must also agree to share their own knowledge and expertise.

The Argenta Innovation Center is building corporate partnerships with local tech firms. AIC puts a major emphasis on helping young people to make connections from skills,

hobbies and interests to real-world jobs. In a hierarchyfree learning environment, teenage techies may find themselves teaching adults. This juxtaposition can help them learn self-confidence, turning existing aptitudes into lucrative career opportunities.

The Argenta Innovation Center is already collaborating with private donors, and local governments that recognize and support the emerging creative economy. The use of co-work space, in easy walking distance of restaurants, entertainment, and shops in Downtown Argenta, has the potential to brush aside institutional barriers that stifle creativity and innovation in more traditional settings. AIC has ambitious dreams for expansion, and despite its urban setting there is ample space for future development.



Putting brains together in a creative environment at the Argenta Innovation Center. Launch Pad photo courtesy of the Argenta Innovation Center.

Relapse or Recovery?

Predicting the economic future is difficult, even over the short term. We decided to off-load some of the responsibility by asking local business and government leaders which will it be: economic relapse or recovery? While some of the leaders cited problems, they unanimously pointed toward continuing economic recovery.7



Although the recovery continues to be painfully slow, the Arkansas economy has not lapsed into recession. Employment growth—particularly in manufacturing and construction—is lagging behind the rest of the nation. However, overall employment is rising, incomes are growing, and sales continue to expand.

- Dr. Michael Pakko, Economist, Arkansas Institute for Economic Advancement, UALR

The Central Arkansas economy continues to recover, though it has far to go to reach its prerecession sturdiness. I can tell because our firm serves primarily medium and small businesses, often entrepreneurial and sometimes startups ... These businesses are reporting strengthening metrics ... putting money where their mouths are by investing in marketing services. Our own company has created 3-4 new jobs in the past yearplus, a significant sign for a firm of roughly 15.



- Martin Thoma, Thoma Thoma

The Little Rock Regional Chamber of Commerce is continuing to see increased activity across many fronts.

- Jay Chesshir, Executive Director, Little Rock Regional Chamber of Commerce



Arkansas's technical and community workforce training programs are vital to a positive recovery. Pulaski Tech's role is to continue to offer high quality academic and technical programs that lead to both viable careers and continued education for our citizens. Our workforce training is exceptional, relevant and has a quick return on investment.

- Dr. Margaret Ellibee, President, Pulaski Technical College

Little Rock is clearly in recovery mode, however sales tax revenues are only slightly improved. Little Rock weathered the recession quite well, with our unemployment rate hovering around 6+%, clearly 2 points below the national unemployment rate and 1 point consistently below the state average. Forbes has ranked Little Rock as having the 4th best economy in the nation. We have seen more than \$1 billion in new investment in the last six years, with more



- Mayor Mark Stodola, City of Little Rock

than 4,000 jobs created.

Central Arkonsas' economy continues to recover, as can be seen in local economic statistics, but the recovery is still uneven across sectors and is moving forward in fits and starts among even the stronger areas. In my area of real estate, for instance, the big year-over-year improvements we saw in the spring have been pulled back somewhat by rising mortgage rates.



- Ward Davis, Chief Executive Officer, the Village at Hendrix



Local ecanamy is "squirrelly" amidst a very mild recovery. After a good start, the first of the year, this summer tanked and was hard an most restauranteurs and industry suppliers. Summer sales were down as much as 12-14 percent versus last year same period for some folks. Some of the individual decline could be due to an unusually large number of restaurants that opened all over town, but that would not account for the industry-wide drop in sales hitting our wholesale suppliers.

- Mark Abernathy, owner Loca Luna, Red Door restaurants

I think the Central Arkansas economy is in a slow recovery mode. We are not experiencing any particular type of rabust growth but things have improved from the 2008–2012 era. If the Fed doesn't tamper with its bond purchasing program, the hausing market will continue to recover and perhaps local unemployment will improve ... we are in need of new, significant employers here.

- Jimmy Moses, Moses Tucker Realty

We are certainly in a recovery. Forbes recently ranked Little Rock as the 32nd Best Place for Business and Careers in the United States. Welspun, Acxiom, Remington, Fidelity National Information Services and Dassault Falcan Jet have all recently announced expansions, including hundreds of new jabs. Also, Midcontinent Independent System Operator (MISO) will soon be



breaking ground in West Little Rock on a new operations center, bringing in about 50 new jobs. Little Rock appears to be gaining momentum and is well an its way to becoming a great American city.

—Ted Bailey, the Multifamily Group

I believe the Central Arkansas economy is in recovery. To expand on that apinion, because Central Arkansas never experienced the extreme economic highs and laws that impacted ather parts of the country in recent years, its economic recovery should proceed on a moderate and steady basis as canditions improve nationally.

-State Representative Warwick Sabin

⁷Metroplan sent out 26 requests for comments from selected business and government leaders, of which about half responded. All responses are quoted, with minor edits for the sake of brevity.

L'Oreal Looks to a Greener Future

Building the bottom line through environmental stewardship

If you've ever driven by the L'Oreal plant on I-40 in North Little Rock, you probably thought you saw a conventional factory. If you looked more closely, you might have noticed the solar panels. Were you to step inside, you'd see digital read-outs of energy savings and waste reduction targets. L'Oreal embraced sustainability goals over a decade ago. Since that time, its North Little Rock plant has been a full participant in the WOW campaign—War on Waste. The local plant has reduced CO₂ outputs by 84 percent through efficiency improvements and by purchasing hydroelectric energy credits from North Little Rock Electric Department.

L'Oreal's Paris-based management pursues its environmental goals for ethical reasons, and also because it makes good business sense. Sustainability monitoring is a useful tool to assess costly inefficiencies. For example, the local factory has reduced energy use from 129 kilowatts to 86 kilowatts per finished good, yielding permanent cost savings. By reducing the weight and density of its packaging, L'Oreal saves on material

Solar energy, recycling, and specialized skills are incremental elements of L'Oreal operations. L'Oreal USA won the 2013 Solar Champion Award, a national award bestowed by the Solar Energy Industries Association.

and freight costs.
L'Oreal is committed
to the communities,
governments and
workforces where it
operates. The local
plant employs about
478 full-time workers
and has invested
\$130 million in it
since 2001. L'Oreal's



local plant was cited by the Brookings Institution when it conducted a study of "clean economy" jobs among U.S. metro areas. In that study, the Central Arkansas region ranked 44th among the top 100 U.S. metros for clean economy jobs, and fourth in the country for growth in clean jobs 2003–2010. M

The Hummingbird and the Forest Fire

L'Oreal is a global corporation with 69,000 employees worldwide, but harbors no illusions of saving the planet alone. The company instead cites an old Japanese folk tale, the parable of the hummingbird.

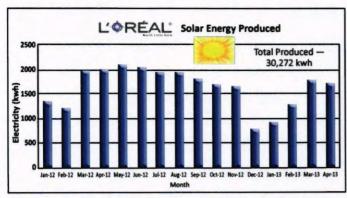


There was a huge, raging forest fire. All the animals fled the forest, and stood on the edge watching. They felt helpless, for the fire looked too big to stop. The hummingbird flew to a stream, sucked up a drop of water, flew back to the fire, and dropped it. The hummingbird went back again and again, although the other animals scolded it for attempting the

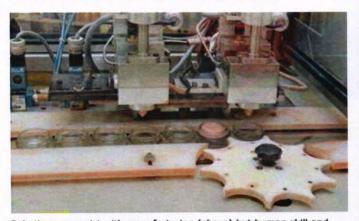


Look it up at YouTube.com.

^{*}Mark Muro, "Sizing the Clean Economy: A National and Regional Green Jobs Assessment," Brookings Institution, July 2011.



Computer monitors around the plant display information about energy produced, quality control and "Winning the War on Waste."



Robotic arms assist with manufacturing (above) but human skill and creativity are essential for preventing errors, minimizing waste and repairs, and boosting production (below).





One of L'Oreal/Maybelline's top-selling mascaras is made right here in central Arkansas.

Workforce Training

Job-related training tends to be highly effective. Unlike abstract school learning, job training gives workers skills that can be practiced, and hence learned more deeply, in action on the job. Most employers would like to have a better-skilled workforce. But training is expensive, and it won't benefit the bottom line if workers take their improved skills with them to new firms.

That's where Pulaski Tech comes in. The school has developed programs that are closely integrated with local firms like L'Oreal and Dassault. Customized training programs give the workers skills which help improve productivity for employers, and advancement opportunities for their workers. In a perfect world, workers would arrive in jobs with the basic skills and the technical knowledge necessary for each job. In reality, this is almost never the case. By bridging the gap, Pulaski Tech's workforce training program has become a powerful



Pulaski Tech partners with L'Oreal to boost workers' skills and enhance their personal advancement opportunities.

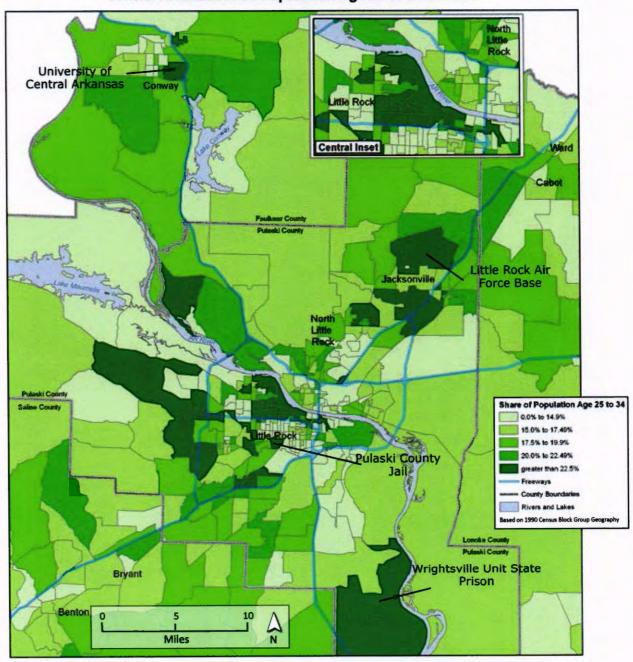
multiplier for local economic development of the best kind, which benefits workers and firms already established in the Central Arkansas region.

Where the Young Adults are Landing

Recent urban literature has been full of stories about shifting preferences among young adults. They are said to prefer convenience and walkability over long commutes, and urban locations over suburbs. We decided to take a local look, comparing share of persons age 25-34 in the year 2010, and 20 years earlier, in 1990. The map at left shows the year 1990, while the map at right shows 2010.

As you can see, there have been dramatic changes that fit anecdotal evidence of changing living/commuting patterns. In many cases, the areas with larger-than-average shares of young adults also had large shares of apartments, both in 1990 and 2010. Tighter economic circumstances in 2010 may thus contribute to greater concentration in central locations; fewer young adults could afford suburban single-family homes.

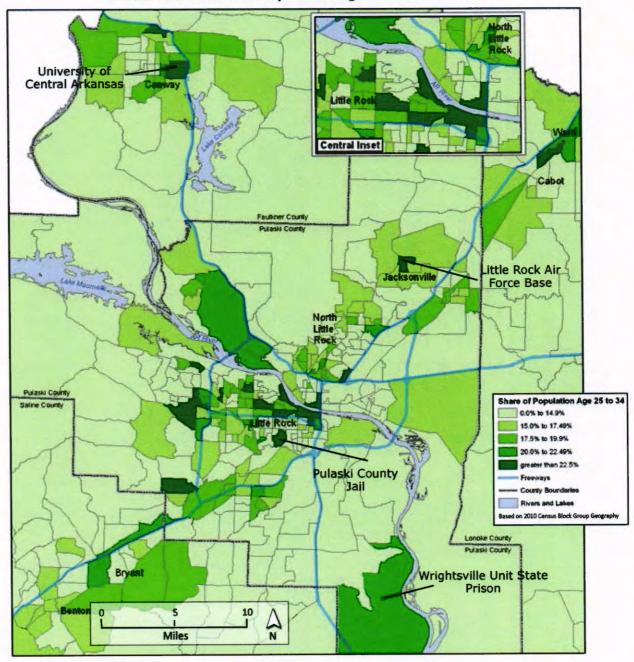
Central Arkansas Area Population Age 25 to 34 in 1990



The reader should be aware that the census geography differs slightly between 1990 and 2010 so that maps aren't directly comparable in all areas. We used the differing geographies because each provides the most fine grained detail for its particular era. There are numerous special cases like the Little Rock Air Force Base near Jacksonville, local universities, and prisons and jails, all of which generally hold a larger-than-average share of young adults.

Persons age 25–34 declined as a share of local population from 17.8 percent in 1990 to 14.6 percent in 2010, even though their numbers grew in absolute terms (+7.2 percent). No doubt some of these young adults will move to suburbs, as incomes grow and children arrive. They have already shattered tradition, however, and more surprises are probably coming. M

Central Arkansas Area Population Age 25 to 34 in 2010



UAMS BioVentures—A Growing Local Success Story

With 436 hospital beds and more than 10,000 employees, the University of Arkansas for Medical Sciences (UAMS) is one of the region's largest single employers and the state's largest hospital. When combined with its partner, Arkansas Children's Hospital (ACH), the total rises to over 800 beds and more than 13,000 jobs, over three percent of regional jobs and six percent of Little Rock-based jobs.

When you do medicine and medical research on this scale, experiments and treatment innovations are constantly underway. Established in 1998, UAMS BioVentures provides technology licensing services and operates a business incubator for UAMS and ACH, to connect these ongoing ideas and innovations with the marketplace.

BioVentures nurtures and leads the way between research and ideas on the one hand, and finished products and upand-running companies on the other. It connects promising ideas and people with entrepreneurship know-how, venture capital and business planning. Some of its mission stems from the Baye-Dole Act of 1980, which deregulated the relationship between governmental research funding and private entrepreneurial efforts. The number of companies and products that Bioventures has spun off is lengthy. The list below cites just a few spinoffs:

- HD Nursing LLC (featured on facing page)
- Myeloma Health uses molecular technologies to more accurately diagnose the cancer Multiple Myeloma
- Safe Foods Corporation has a patented process for protecting meat and poultry from bacterial contamination, thus decreasing the risk of food poisoning



Angel Eye is a secure, HIPPA compliant camera system that allows parents to keep an eye on their baby in the neonatal intensive care unit from a smart phone or computer. Photo courtesy of UAMS.



With just five employees, Bioventures lends its expertise with transforming promising ideas, practices and inventions into viable real-world enterprises for UAMS and Arkansas Children's Hospital.

- Rx Results, LLC A system for determining the compatibility of generic and labeled drugs, for use by insurance companies and employers for pharmaceutical cost reduction
- Angel Eye A secure camera/audio system that enables the parents and family members to view their baby in neonatal intensive care from a smart phone or computer 24 hours a day
- BALM Innovations LLC Skin creams based on tea tree oil are presently being tested for their ability to reduce the risk of developing skin ulcers in diabetic patients
- Contour Med, Inc. Custom-made breast prostheses

Innovations have a way of creating their own momentum. HD Nursing is working with spinoffs nobody expected to emerge from a patient records database, like fall-protection helmets that look like casual knit caps, and sensor products and smartphone apps to predict and prevent falls.

If Central Arkansas has an entrepreneurship deficit, the solution will probably be found in innovating and creating new ideas from things that we already do. By organizing the researchers within the university, the entrepreneurs of the community and the representatives of the risk capital community, UAMS BioVentures has participated in the formation of over 45 companies. Since hospitals and medical research are already at the core of our economy, BioVentures is embracing an opportunity to connect some of our region's smartest and most creative people with the international marketplace. M

Professionalism Meets Entrepreneurship with HD Nursing

The elderly patient begins rising from her hospital bed. She has a neurological impairment; the risk of falling is greater than she realizes. One foot touches the floor, then the other. Not recognizing her limitations, she tries to stand up, takes a shaky step ...

In the past, this scenario frequently ended with a fall and a painful injury to complicate recovery for patient, family and hospital. While money may be the smallest part of the equation, a typical "fall with injury" costs \$27,000. The hospital is fully liable, but extra costs make medical care more expensive for everybody. Falls are the primary "adverse event" within hospitals, ranking above infections for frequency and cost.



The Vocera badge shown here allows a nurse to save time responding to sudden needs.

Fortunately, this patient was in a hospital covered by the innovative HD Falls Program. Her risk factors had already been identified. When she arose from the bed, an alarm buzzed on the Vocera badge of the nearest nurse, a short distance down the hall. She made it to the bedside in seconds, the patient kept her footing, and recovery continued. A protective mat was already at bedside, just in case.

This story began a few years

ago when UAMS opened a more spacious neuroscience unit with better rooms and the number of patient falls





Amy L. Hester, RN (left) and Dees Davis, RN (right) worked diligently to prevent in-hospital falls. Bioventures helped them turn their vital but small-scale success into a marketable product with potential to revolutionize hospital fall prevention for 65 million patients.

unexpectedly increased. For UAMS nurses Amy Hester and Dees Davis, there had to be a better answer. They worked with their staff to develop the first scientifically validated study and remedy for inhospital falls since the 1980s. The nurses connected the dots between



patient medical records and actual falls. Electronic Medical Records (EMRs) made it easier to carefully tease out data from numerous incidents, hundreds of patients, and thousands of risk factors. Within a year, they had reduced injury-causing falls by 60 percent.

For Amy and Dees, this seemed like enough. They are nurses; their life's work isn't a quest for profit, it's about personal care. Yet their work had saved UAMS \$1.27 million in one year. The director and staff of BioVentures

showed them how to touch more lives by commercializing their program. BioVentures helped guide the process, which included beta-testing their program at another Arkansas hospital, working out a business plan, and quantifying per-



With the help of HD Falls, medical professionals can record data and retrieve statistically-validated conclusions on a patient's likely risk for failing.

patient costs and savings.

Today, HD Nursing LLC is a commercial venture partnering with Epic EMR, a medical-records system. The HD Falls Program has been recognized in the professional literature as the most advanced of its type in the country. This home-grown Arkansas business is growing. By 2015, Epic EMR estimates that the HD Falls Program will be helping 65 million patients in 300 hospital systems around the country. For more information see http://hdnursing.com. M

Slow Housing Market During First Half of 2013

Overall regional housing construction was up marginally during the first half of 2013. The chart at right shows that compared with the first half of 2012, single-family housing construction increased by a small fraction, while multifamily housing rose more quickly. The slow trend probably reflects continuing weakness in housing markets, and a slowdown of in-migration to the region as well.

Cabot saw the fastest up-tick in single-family housing construction to 65 units, rising 35 percent in the first half of 2013 over the same period in 2012. The second fastest growth was in Benton, which rose nearly 16 percent to 117 new units. Little Rock saw the largest total of new single-family permits (188), and the third-fastest increase over the previous year at 12 percent. Sherwood also gained nearly 6 percent. Jacksonville and Maumelle were flat, while North Little Rock saw a 37 percent decline in new single-family permits. Bryant, Conway and Hot Springs Village also saw some fall-off in housing construction.

Multi-family construction was limited to the region's three largest cities. Little Rock added a total of 259 new multi-family units. Largest of these was the Pointe at Brodie Creek, which will add 186 units when completed. Other projects include an assisted living center in western Little Rock and the mixed-use Mann on Main project, which adds 19 units to the downtown market. Arkansas Baptist College also began construction of a new dormitory with 192 beds, although this is not counted with the multi-family tallies. North Little Rock added a new 96-unit complex east of the US 67-167 freeway. Conway saw a new 88-unit complex commence construction in March.



The Pointe at Brodie Creek in Little Rock west of I-430 is now leasing and nearing completion on construction of 186 units.

While the overall figures show little change over the recent past, one surprise is the prominence of Little Rock within the early 2013 figures. While it accounts for under 29 percent of the four-county region's population, Little Rock saw 39 percent of the new housing units under construction during the first half of 2013. As recently as 2006, Little Rock accounted for about 26 percent of regional housing construction.

Half Year (January-June) Housing Unit Permits 2010–2013

Single-Family

	2010	2011	2012	2013			
Benton	129	78	101	117			
Bryant	109	73	69	64			
Cabot	45	45	48	65			
Conway	137	82	86	76			
Hot Sprgs Vill	40	26	28	25			
Jacksonville	33	16	15	15			
Little Rock	183	180	168	188			
Maumelle	50	34	41	41			
N Little Rock	74	80	87	55			
Sherwood	61	54	69	73			

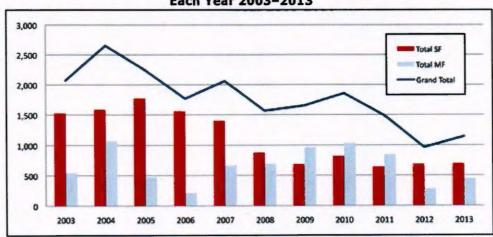
Multi-Family

	2010	2011	2012	2013
Benton	0	0	0	0
Bryant	450	22	26	0
Cabot	36	0	0	0
Conway	318	0	40	94
Hot Sprgs Vill	0	0	0	0
Jacksonville	6	0	6	0
Little Rock	126	514	207	259
Maumelle	0	0	0	0
N Little Rock	98	312	0	96
Sherwood	0	0	0	0

Regional Totals

	2010	2011	2012	2013	
Total SF	821	642	684	694	
Total MF	1,034	848	279	449	
Grand Total	1,855	1,490	963	1,143	

LR-NLR-Conway Housing Unit Permits First Six Months of Each Year 2003–2013



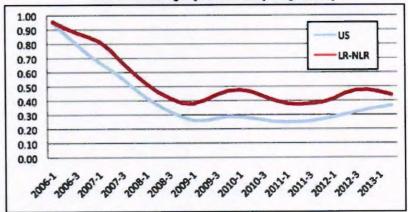
The charts at right on this page compare local single-family and multi-family construction trends with the U.S. average. As you can see, the region is running just a bit above average for U.S. housing construction, although when seasonally adjusted, local single-family housing seems to be dipping toward the U.S. average. The housing recovery remains tenuous. M



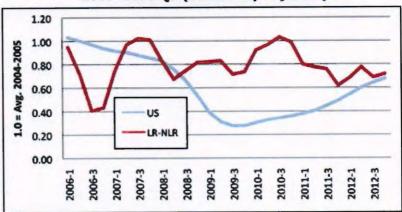
Single-family housing construction in Cabot has edged up recently after several slow years.



Single-Family Construction Index 2006–2013 Q2 (Seasonally Adjusted)



Multi-Family Construction Index 2006–2013 Q2 (Seasonally Adjusted)



Construction Value Trends

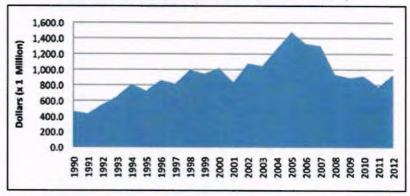
The latest data on construction values suggest a continuing slow regional climbout from the Great Recession. In the year 2012, local construction climbed 21 percent from the year before. Adjusted for inflation, local construction remains well below its levels from the 2002–2008 construction boom, but now roughly matches levels from the late 1990s. The biggest gains were in nonresidential construction, which climbed 37.5 percent. New residential construction rose by a more modest 10.8 percent.

The figures for 2012 mark an up-tick from the previous year's performance, but since 2011 construction values were the lowest since 1993, this was a modest achievement. Weak local income growth may be correlated with the soft construction trend. The latest figures available from the U.S. Bureau of Economic Analysis show that regional incomes grew a modest 0.9 percent from 2008 to 2011, compared with 1.5 percent income growth at the national level.

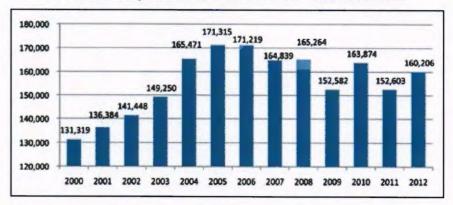
The median value for new single-family homes climbed in 2012, but remained below levels from the housing boom in 2004–2008. Square footage was also up, roughly matching the national average of about 2,300 square feet per single-family home in 2012. M



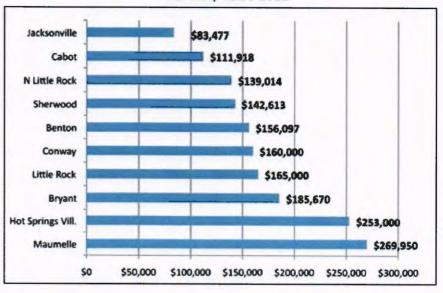
Construction Value LR-NLR-Conway 1990-2012 (2012 Dollars)



LR-NLR-Conway Median New Home Permit Value 2000-2012



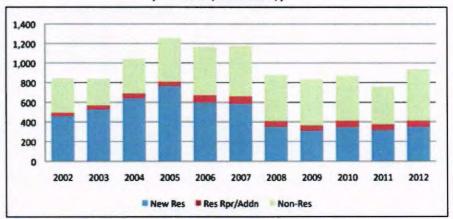
New Single-Family Units Permit \$ Value 2012



Workers apply finishing touches at Mann on Main, which combines office and retail with 19 loft apartments in downtown Little Rock.

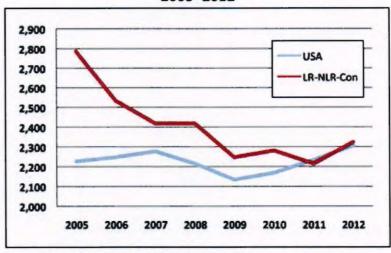
Permit Values by Type 2002-2012

(x 1Million, Nominal \$)



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

Median Square Footage of New Single-Family Homes 2005–2012



Median figures represents LR, NLR, and Conway only.

Socioeconomic Statistics 2012-2013

	LR-NLR-Conway MSA	Faulkner	Grant	Lonoke	Perry	Pulaski	Saline
Average Res. Employment 2012	323,475	54,700	7,850	30,900	4,300	175,725	50,000
% Unemployment	6.5%	6.6%	6.5%	6.1%	8.0%	6.6%	6.0%
New Industries 2012-13**	4	2	0	0	0	2	0
Expanding Industries 2012-13**	11	0	2	2	0	7	0
Bank Deposits 2013 (\$ 1,000)*	\$11,464,106	\$3,597,871	\$94,444	\$489,525	\$0	\$7,079,964	\$202,302
Bank Assets 2013 (\$ 1,000)*	\$10,624,546	\$4,362,514	\$110,424	\$420,790	\$0	\$5,567,337	\$163,481

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 M5A. Bank deposit and asset data represent June 30, 2013.

^{**}New and Expanded industries as announced by the Arkansas Economic Development Commission, over period October 2012 through September 2013

Economic Outlook 2013-2014

Any economic prediction must acknowledge uncertainties, like Federal Reserve policy, a growing risk of deflation, possible housing market bubbles after years of quantitative easing, and uncertainties from the Affordable Care Act and the continuing threats of government shutdowns. Slightly different, yet broadly similar, unknowns were present last year and the year before, yet slow growth continued. Railroad carloadings continue upward, a promising leading indicator for economic growth. The challenge in 2014 will probably be more about uneven growth than no growth. Economic disparities have deepened while many sectors are failing to produce the reliable growth of years past. Opportunities will be found in recognizing emerging patterns in a reconfiguring economic landscape.

Lack of dynamism in single-family housing demonstrates demographic and cultural shifts already well underway. The new normal in housing will include fewer detached single-family housing units, and a greater share of multifamily. This data trend remains steadier and clearer than most in the post-Great Recession economic environment. Slow job growth and lack of real income growth are probable causes behind a rise in the average number of U.S. persons per household in recent years, reducing housing demand growth. As the chart below shows, rising household size has been even more pronounced in Central Arkansas in recent years, a sharp reversal for an indicator that trended down relentlessly during 60 years of post-World War II prosperity.

Central Arkansas remains an economy spread across numerous industries, anchored in "eds and meds" and government. This reliable, but less-than-dynamic, industry mix will yield steady but slow growth for

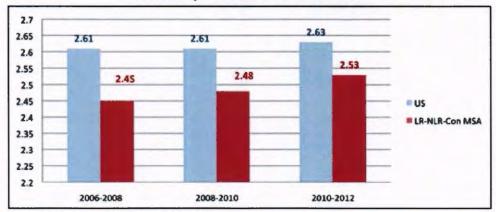


Growth in e-commerce poses growing uncertainties for bricks-and-mortar retailers.

2014. The key to faster growth lies in the developing creative economy. Successful innovation requires scientific knowledge, risk-taking, and investment capital. Environmental waste can be a metric for cost-savings and innovation opportunities.

The local area seems to be running ahead of the curve in establishing home-grown creative/entrepreneurial initiatives, as shown by cases conveyed in this newsletter and other developing programs. Central Arkansas has seen better-than-average success at urban re-invigoration in all three of its largest cities, a promising sign in an emerging economy in which high-quality urban environments seem to provide the backdrop for innovation culture.

Persons per Household 2006-2012



Source: U.S. Bureau of the Census, 3-Year ACS

2013 Metroplan Board of Directors

PRESIDENT

Mayor Bill Cypert

SECRETARY

Mayor Randy Holland City of Mayflower

City of Cabot

VICE PRESIDENT

Mayor Jeff Arey City of Haskell TREASURER

Mayor Gary Fletcher

City of Jacksonville

Mayor Michelle Hobbs City of Alexander

Mayor Bernadette Chamberlain

City of Austin

Mayor Mike Watson

City of Lonoke

Mayor Wayne McGee

Mayor McKinzie L. Riley

Mayor Terry Don Robinson

Mayor Johnny McMahan

City of Bauxite

City of Maumelle

Mayor Ricky Pearce

City of Wrightsville

City of Wooster

Mayor David Mattingly City of Benton Mayor Joe Smith

City of Mount Vernon

Judge Allen Dodson Faulkner County

Mayor Jill Dabbs

City of Bryant

City of North Little Rock

Judge Kemp Nall Grant County

Mayor Harry Light City of Cammack Village Mayor Mike Kemp City of Shannon Hills Judge Doug Erwin Lonoke County

Mayor Tab Townsell City of Conway Mayor Joe Wise City of Sheridan Judge Buddy Villines Pulaski County

Mayor Melton Cotton City of Greenbrier Mayor Virginia Hillman City of Sherwood Judge Lanny Fite Saline County

Mr. Tom Bryant Hot Springs Village Mayor Michael Nash City of Traskwood Mr. Alan Meadors / Ms. Jesse Jones Arkansas State Highway and Transportation Department

Mayor Mark Stodola City of Little Rock Mayor James Firestone City of Vilonia

Ms. Betty Wineland / Mr. Jarod Varner Central Arkansas Transit Authority

Mayor Art Brooke City of Ward