UNIVERSITY OF COLORADO AT BOULDER LEEDS SCHOOL OF BUSINESS

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Forum Keynote Address

"Good to Great to Green: A Model for Colorado's New Eco-Economy"

Brian Lewandowski

In recent years the term *sustainability* has become a popular term in corporate society. GE, for example, is taking aggressive, real steps in the green direction with the "ecomagination campaign" (ge.ecomagination.com), seizing the opportunity to turn environmental solutions into corporate profits. Comprehensive sustainability reports now rest alongside annual financial reports on corporate Web sites, even for players in conventionally un-green industries, such as British Petroleum (www.bp.com/productlanding.do) and Newmont Mining Corporation (www.beyondthemine.com). If an oil company and a mining company can make strides toward sustainability, it should be no surprise that Vail Resorts, which is in the business of selling the outdoors, is committing to becoming more sustainable.

Rob Katz, CEO of Vail Resorts, Inc., spoke directly about the application of sustainability and serving the triple bottom line. Pulling themes from Jim Collins's book, *Good to Great*, Katz discussed how three fundamentals—knowing your core business, understanding the genius of the *"and"* and the tyranny of the *"or,"* and setting lofty goals—is helping make Vail Resorts sustainable. Not to be confused solely with a green movement, Katz specified sustainability as both economic and environmental. Given that Vail Resort's welfare depends on the health of the environment, Katz views a move in the green direction as a company imperative. On a grander scale, Katz believes that in terms of sustainability, Colorado has a natural competitive advantage and an opportunity to establish a leadership role.

The Product

Vail is a household name in Colorado and arguably around the nation and the world, as well. However, the resort company is much more pervasive in the tourism industry than one may expect. Ski areas operating under the corporate name include Vail, Beaver Creek, Breckenridge, and Keystone in Colorado, and Heavenly in California and Nevada. In addition, the company has a collection of hotels and lodges; a real estate development company; and 150 retail locations, including Colorado Ski and Golf and Bicycle Village. Katz says, "Essentially, the product we sell is the outdoors. . . . People come to visit us, they come to recreate with us, not because of the insides of our buildings." The leadership at Vail recognizes that "selling the outdoors is something we can do better than anyone else." If you look at the company over time, this becomes apparent through organic growth, strategic acquisitions in core markets, and expansion into complementary businesses.

Protecting the environment, Katz explains, is another smart business decision not only because it is the right thing to do; it also protects Vail's product, and consumers are aware and interested. Katz explains, "The more that we can do to protect our environment and talk to our guests about it, the more we further deepen our relationship with our guests."

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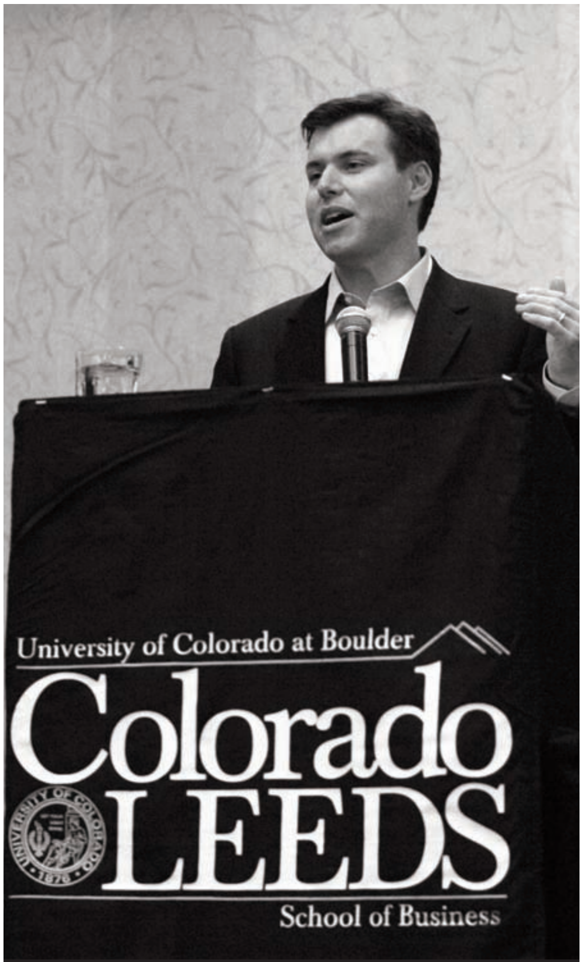

Rob Katz, CEO of Vail Resorts, Inc., discussed the company's efforts to become a leading environmental firm at the 2008 Colorado Business Economic Outlook Forum.

by Richard Wobbekind

2008 Colorado Business Economic Outlook: Sector Highlights

Gross Domestic Product (GDP)—GDP is expected to increase at a rate of 2.4% in 2008, comparable to the annualized rate of expansion from 2000 to 2007. The GDP deflator will register 2.1% in 2008.

Consumption—Nationally, growth will be driven by a 2.9% increase in real disposable personal income and 2.4% growth in personal consumption. Accordingly, nominal retail sales will expand by 5.3%. Light truck and auto sales will remain flat at 16.0 million vehicles as a result of "spent-up" demand from creative financing programs and the slowing economy.

Investment—Real business investment is expected to remain solid this year, with a 4.2% growth rate. Industrial production will increase 2.7%, while capacity utilization will revert to the long-term mean, thus lowering inflation risks.

Government Spending—After peaking at $413 billion in 2004, the federal deficit is expected to drop to $164 billion in 2007. The slowing economy will cause the deficit to climb to $203 billion in 2008. Growth in government spending will remain flat despite upward pressure from healthcare, defense and homeland security, and entitlement programs.

Net Exports—During 2007, U.S. exports benefited from strong global economic conditions, increasingly free and fair trade, and a continued decline in the trade-weighted value of the dollar, which has boosted demand for U.S. products. This is good news because increased exports have helped offset the adverse effects of the housing slump and the credit crunch. Barring major shocks to oil prices, net exports will continue to improve, to $540 billion.

Prices—Fear of inflation has been a driving force behind the monetary policy of the Fed. Inflation reached 3.4% in 2005 and has been on a steady decline since, dropping to 2.7% in 2007 and a projected 2.3% this year. Inflation will be kept in check by lower housing costs and the overall slow growth of the economy. Energy and fuel costs continue to influence on the upside. The Denver-Boulder-Greeley CPI will register 2.7% in 2008. Producer prices, as measured by the Producer Price Index (PPI), have been most adversely impacted in recent years by volatile energy prices. The projected PPI growth rate for last year is 3.4%, with a lower rate of 2% expected in 2008. Employment costs should be flat, at 3.3%, through 2008. For the past couple of years, moderate employment growth has helped minimize upside wage pressures. This, in turn, has helped offset increasing benefit and medical costs. Employment costs will likely remain steady as long as the unemployment rate is in the range of the natural rate.

Population—Nationally, the population will grow at a rate of 0.9%, compared to 2.1% for the state. The natural rate of increase will be steady, around 40,000. Net migration will exceed 60,000 for the first time since 2001. The state's population will break the 5 million mark this year.

Labor Force and Unemployment—The combination of strong population growth and a slowing economy will drive the Colorado unemployment rate up to 4.2% this year, compared to 4.9% for the nation. Upward wage pressures may be felt in certain sectors.

Personal and Per Capita Income—The outlook for income growth is brighter in 2008 as the Colorado economy outperforms the U.S. economy in both population and employment growth. Colorado per capita income for 2006 registered $39,587, compared to $36,629 for the United States.

Employment—Rapid job growth in Natural Resources and Mining will be offset by declines in Construction and Manufacturing. Thus, the number of goods-producing jobs will remain flat in 2008. Jobs in the service-producing sectors are expected to climb by a total of 43,300. In 2008, Colorado employment will increase by 1.9%, compared to 1.1% for the United States.

Agriculture—The state's ethanol industry will continue to impact the net farm incomes of Colorado's farmers and ranchers in 2008. Generally high corn prices will continue to translate to increased profitability for farmers and higher feed costs for livestock and dairy producers. The blizzards of December 2006 were devastating to cattle ranchers in southeast Colorado, where more than 15,000 head were lost. At the same time, the moisture was a boon to wheat farmers. The agriculture industry is also facing uncertainty relating to water rights and seasonal workers. In 2008, gross value will total $6.8 billion, with net farm income rising to a projected $843 million. Net cash receipts from livestock sales are expected to decline further, to $3.8 billion.

Natural Resources and Mining—Increased demand for energy products has resulted in growth in employment, output, and total sales in Colorado's energy sector. About 5,000 workers will be added this year, for a total of 29,800 jobs. This growth will be driven primarily by increased production of natural gas. Crude oil is expected to increase slightly, and coal production will remain near 40 million tons, with output growth constrained by limitations in Colorado's rail infrastructure.

From the Editor

We begin a new year with highlights of the Forty-Third Annual Colorado Business Economic Outlook Business Economic Outlook Forum, our annual forecast that was held in December at the Grand Hyatt Hotel in Denver. This half-day event included a sector by sector forecast; a Q&A panel session; a keynote address by Robert Katz, CEO of Vail Resorts, Inc.; and three industry discussion sessions. Session summaries appear on the following pages; for additional details, visit our Web site at leeds.colorado.edu/brd or call me at 303-492-1147.

—Richard L. Wobbekind

Construction—Total value of construction is projected to increase 4.3% in Colorado in 2008, to nearly $12.5 billion, boosted by nonresidential and nonbuilding construction. Single-family permits are expected to fall an additional 5% in 2008, following a decline of 39.4% last year. Multifamily permits are expected to increase 6.3%, fueled by decreasing apartment vacancy rates.

Manufacturing—The manufacturing sector will continue its steady decline. About 8,400 jobs will be lost in 2007 and 2008, with more than 70% of the decreases occurring in durable goods. The largest decline is expected in the Computer and Electronics Sector, with other durable goods sectors showing slight decreases. The most visible nondurable goods sectors, food and beverage, are projected to remain flat in 2008, while the other smaller sectors will post declines.

Trade, Transportation, and Utilities—Between 1997 and 2006, roughly 38,800 net jobs were added to this supersector, representing 12.8% of the total jobs added during that period. About 3,000 retail jobs will be added in 2008. Nominal retail sales will total $67 million, for a 3.6% increase. It should be noted that 2007 projections include sales that were shifted to January 2007 as a result of the December 2006 blizzards. Accordingly, the 2007 total will be artificially high. About 1,000 jobs will be added in Wholesale Trade next year, a sector with higher than average wages. Record passenger traffic is expected to continue at DIA, and total transportation employment will increase 1,200 jobs, with 500 of those in air transportation. The Utilities Sector is projected to grow by 200 jobs. Overall, the TTU supersector will increase by 1.3%, or 5,400 positions.

Information—Following six years of declining employment, the Information Supersector finally bottomed out in 2006. Growth in software publishing, Internet publishing, telecommunications, and motion pictures will lead to a marginal employment increase by year-end 2007, and add 900 jobs this year. The Telecommunications and Publishing Sectors are expected to gain 200 and 100 jobs, respectively.

Financial Activities—Between 1997 and 2006, about 8.5% of all jobs added—25,500 net jobs—were in the Financial Activities Supersector. While much of the growth occurred in credit intermediation, employment in this area has declined in recent months as a result of mergers and fallout from subprime woes. In 2008, job growth will remain flat in the Finance and Insurance Sector. Approximately 400 positions will be added in the Real Estate and Rental and Leasing Sector.

Professional and Business Services—Between 1997 and 2006, roughly 19.6% of all jobs added, or 58,500 net jobs, were in the Professional Business Services Supersector. The expansion of the economy has driven demand for such services as engineering, computer systems design, and other professional or technical business services. This year, 8,800 jobs will be added in Professional and Technical Services, Administrative and Support Services will grow by 5,200 positions, and Management of Companies and Enterprises will gain 1,500 jobs. This last sector is noteworthy because average annual wages in this category exceed $100,000. This supersector will lead Colorado in absolute employment growth, with an increase of 4.4%, or 15,500 jobs.

BETWEEN 1997 AND 2006, ROUGHLY 19.6% OF ALL JOBS ADDED, OR 58,500 NET JOBS, WERE IN THE PROFESSIONAL BUSINESS SERVICES SUPERSECTOR.

Educational and Healthcare Services—This supersector includes private education and healthcare services. Between 1997 and 2006, about 17.6% of all jobs added, or 52,700 net jobs, were in the EHS Supersector. Job growth has occurred every year, even during recessionary cycles. In 2008, healthcare and social assistance employment will grow by 6,800 positions, and the private education sector will gain 1,200 jobs. The growth in private education has most likely been a direct result of increased state population and a need for worker retraining. Overall, total EHS employment will increase by 3.3% for a total of 248,000 workers.

Leisure and Hospitality—This supersector includes not only the recreational and entertainment activities of Colorado residents and tourists, but also business travelers. In the hotel industry, average daily rates were up 6% in 2007 and are projected to climb 5.2% this year. Colorado is anticipated to record more than 12.6 million skier visits in the 2007-08 season. The supersector is expected to add 8,500 jobs in 2007, followed by roughly 6,000 positions this year, for a 2.1% increase. Much of this growth will be dominated by the foodservices sector, which will add 4,100 of the 8,500 jobs.

Other Services—This supersector is comprised of private businesses that provide personal services, such as auto repair shops, Laundromats, and beauty salons. Colorado has had a higher annualized rate of growth in this supersector compared to the nation for the period 1997-2006, 2% versus 1.3%. Because these companies focus on personal services, this sector's growth rate often parallels the rate of population growth rather than overall employment increases. The supersector will gain 2,000 positions this year.

Government—As the state's population has grown, so has the need for government services. As a result, all sectors of the government are expected to increase in 2008. About 100 federal jobs will be added, along with 1,600 state government and education jobs. The improved budgetary flexibility provided by Referendum C, coupled with growth in state tax revenue, contributed to employment growth in 2007 and 2008. The largest growth will occur at the local level, where approximately 3,400 jobs will be added. Most of that growth will occur in the K-12 education sector. Employment growth in the Government Supersector will total 5,100 jobs.

International Trade—Despite an overall rise in U.S. exports prompted by global market conditions favoring U.S. goods and services, Colorado's merchandise exports are expected to decline 11% in 2007. A slight rebound is anticipated this year, owing to slower global economic growth, a more competitive U.S. dollar, and continued growth in Colorado agricultural exports. Colorado exports will climb 1.5% in 2008.

Key International and National Issues

The following international and national issues will shape Colorado's economy in the months ahead:

- Overall, the global economy will record solid but slower GDP growth. On the upside, North America is the only major area anticipated to record higher GDP growth in 2008. Despite lower expectations, solid growth will occur in China, Australia, Taiwan, South Korea, and some Eastern European countries. The greatest area of concern is weak growth in key Western European countries and Japan.
- Global financial markets have experienced volatility as a result of the upheaval in the credit markets.
- At home, one of the primary worries is a deeper than expected housing slump accompanied by a credit crunch. Concerns about

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Denver Metro Real Estate Markets

Luke Willoughby and Brian Lewandowski

At the 2007 Business Economic Outlook Forum, which was held in December 2006, Tom Thibodeau of the University of Colorado Real Estate Center made a bet with another forecasting member that housing prices in Colorado would not go down in the next three years. At this year's 2008 outlook forum, he informed the audience of the "Denver Metro Real Estate Markets" breakout session that the 2.2% increase in state home prices meant he was on track to enjoy his triumph with a cup of victory coffee.

According to the Office of Federal Housing Enterprise Oversight (OFHEO), overall state housing prices are up 2.2% from Q3 2006 to Q3 2007, but markets are faring differently by geography. Grand Junction and Boulder are up 14% and 3.1%, respectively, while Denver and Greeley are down 0.3% and 0.9%. While housing prices in some western states have increased substantially over the prior year, including Utah (+12.9%) and Texas (+6.3%), others have actually depreciated, including Florida (-2.1%), Massachusetts (-2.3%), and California (-3.1%).

Capital Markets

Steve Bye of Northmarq Capital Investments provided an overview of current real estate capital markets. He persuasively indicated that the current subprime market calamity is generally isolated to the residential sector. Commercial delinquencies, for instance, are around 3/10ths of a percent, much lower than residential delinquencies. However, with the enormous influence that the subprime crisis has had on the entire economy, the commercial markets are still being "punished" by the effects of a "total industrywide risk transformation."

Since 1997, money flowing to the industry arrived in the form of commercial mortgage-backed securities, with money center banks gathering a greater proportion of the market. In general, this market was fueled by a combination of liquidity, dispersion of risk, global investments, and competition. Demand for these securities led to aggressive maneuvers by lenders, including interest-only loans, more pro-forma underwriting, more aggressive underwriting on vacancy rates, as well as looking at other indicators in lieu of cash flow.

In April, when Moody's began reevaluating ratings of mortgage-backed security investments, mortgage values began to fall, thus compounding the crisis. Some of the hardest hit in this risk repricing, other than individual residential homeowners, have been public mortgage companies, such as Countrywide Financial. Now, as risk is being reassessed, the commercial real estate sector is finding it more costly to secure capital. According to Bye, commercial loans back in February 2007 were priced at about 1% above the 10-year Treasury rate. With Treasuries at 4.5%, that put loans at 5.5%, interest only. Now the spread has increased to about 3%, and the interest-only option is history. That means the cost of capital is about 7.5%, with a 25- or 30-year amortization, which greatly impacts project cash flow. "As a result, the commercial mortgage-backed securities industry has kind of ground to a halt. It is still active, but a lot of the investment banks that originated the loans are no longer certain that they will be able to sell them. Or if they can, they have to hold some of the riskier pieces, impacting the profit model."

Bye indicated that multifamily and warehouse properties will continue to be the easiest to finance, while office and retail properties will be under greater scrutiny due to their correlation with the strength of the economy.

Residential

Jay Peterson, representing Hanley Wood Market Intelligence, provided a synopsis of the single-family residential real estate market. Peterson discussed market indicators, including existing inventory, days on market, building permits, and speculative inventory to evaluate how Denver compares to the national market.

Nationally, inventories have been increasing, with end-of-month homes for sale more than double their historical average. Peterson pointed to the importance of this metric, since existing homes typically outsell new homes 7 or 8 to 1. The number of months of supply increased to 10.5 in September 2007, compared to a historical average of 6.0. However, the Denver Metro region is at roughly the 2006 level.

According to Peterson, the average time on market for a home sale is approximately 100 days. This number has been increasing steadily since 1999, with no alarming spikes. This shows that supply increases have not exhausted the number of buyers (demand) in the Denver market.

Another positive statistic Peterson refers to in Colorado is median home price. From 2001 to 2006, the average Denver area home appreciated a healthy, steady pace, about 35% over the period. By comparison, Phoenix jumped 46% in one year, while parts of Southern California appreciated greater than 100%. Thus, the current market correction is felt greater in markets that were experiencing the greatest appreciation.

From January through September 2007, about 42% of Denver Metro homes sold within 45 days, and roughly 75% of homes sold at or more than 97% of the listing price. A majority of homes are selling between \$120 and \$170 per square foot, with the average at \$166. Most homes range in size between 1,100 and 2,000 square feet, with an average of 1,891.

Regarding new residential construction, Peterson remarked, "Builders in our market, unlike others, have actually done a very good job managing their inventory . . . and that is going to help our market quickly return to a healthy state." Speculative inventory, which includes standing inventory and units under construction, has fallen more than 11% over the year, showing that builders are

Real estate panelists discuss the Denver Metro market at the forum breakout session.

making appropriate adjustments. Comparatively, Phoenix (+3.4%), Las Vegas (+12.9%), Seattle (+34.6%), and Chicago (+104.6%) are continuing speculative building in spite of adverse market conditions. Single-family permits are expected to total 8,700 units in 2007, and increase slightly to 9,800 permits in 2008 in the Denver Metro region.

Apartments

Terrance Hunt of Apartment Realty Advisors (ARA) spoke about the current apartment market, supported by data on sales, absorption rates, new construction, and vacancies, as well as what to expect this year.

According to ARA, sales in the Denver Metro region in Q3 2007 varied from $57,726 per unit in the 20-49 unit range to $102,233 in the 200+ unit range, indicating that units are trading at a significant discount from construction costs. These costs start at about $140,000 per unit, which spurs interest in the market. Hunt remarked there has been a 50–100 basis point change in cap rates with the transformation in the capital markets.

According to Hunt, absorption in the apartment markets is on a positive trend, averaging approximately 5,000 units a year since 2003. During the 2001 recession, however, absorption was in a dreadful state, nearing negative 2,900 units per year. Since then several factors have attributed to the healthy and positive current state. Foreclosures in the residential markets, coupled with tighter lending policies restricting some families from entering the homeownership market, are helping drive apartment rentals. Employment growth has contributed, but is not driving the market. With 31% of the Colorado population in the 41–62 age group, the children of these households are now starting to flood the market. In addition, Denver is drawing population from surrounding states as it is one of the largest metropolitan areas in the surrounding western region.

Overbuilding and negative absorption in 2001–02 led to vacancy rates of 13.2%. “Since then, our positive growth has brought us back down and now we are at 5.3% vacant marketwide,” Hunt said. “The least expensive, stick-built, suburban garden product will cost you $140,000 a unit, downtown we are seeing $300,000 a unit.”

Hunt forecasted a very positive 2008 market, with low vacancies, higher rents, and new construction—all in response to the strong absorption. Apartment managers will strive to achieve 95% occupancy, providing concessions and other concessions to meet that mark. With vacancies now falling to 5.2%, Hunt expects 2008 will usher in rent hikes around 8%–12%. Absorption will outpace construction, resulting in a decrease in vacancies and an increase in rents. New construction will climb to about 2,000 units per year.

Retail

Gregory A. Moran of Miller Weingarten Realty presented an overall theme of “cautious optimism” for retail markets, despite looming fears of recession and the current state of other realty sectors. Moran justifies his confidence by pointing to 2007 Black Friday sales, which, despite current market conditions, were up 2.5% over last year. A 3.5% increase in November sales, continued growth in personal income, a weak dollar driving foreign spending, positive growth in sales at non-anchor malls, and low unemployment will also help these markets. Moran noted that Colorado has nearly 141 million square feet of retail chalking up $49.5 billion in annual sales and employing 11.5% of the state’s nonagriculture employment (compared to 9% nationally).

Calling them the “hottest concept out there,” Moran says that mixed-use, high-density developments are being driven by planners, consumers, and retailers alike. “These projects do better in in-fill locations. Now you can go

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Blue Ribbon Commission on Health Care Reform

Scott Vos

In 2005, the Blue Ribbon Commission on Health Care Reform was created to study the problems of the current health care system and find possible solutions to ensure more Coloradans have health care coverage. Specifically, about 770,000 of Colorado's 4.9 million residents are without any health insurance. Roughly 180,000 are children.

The health care discussion session at this year's business economic outlook forum included panel members Donna Marshall, executive director of the Colorado Business Group on Health, and Clarke D. Becker, president and CEO of the Colorado Rural Development Council. They addressed issues that will be included in the panel's final report that will be submitted to the legislature in January.

SPECIFICALLY, ABOUT 770,000 OF COLORADO'S 4.9 MILLION RESIDENTS ARE WITHOUT ANY HEALTH INSURANCE. ROUGHLY 180,000 ARE CHILDREN.

The legislature gave the commission the difficult task of not only finding a way to expand health coverage to more Colorado citizens, including all children, but also to decrease the cost at the same time. To accomplish this goal, the group focused on programs that will encourage individual and employer responsibility, and provide incentives to health care providers to adopt information technology.

To start the process, the commission asked the community to submit proposals and ideas. Out of the 31 submitted proposals, four were selected to be evaluated in detail and submitted to the legislature. The group also drafted a proposal that will be submitted along with the other four. A key point in many of the proposals was the definition of the federal poverty level (FPL). According to the U.S. Department of Health and Human Services poverty guidelines, the 2007 threshold was set at $20,650 for a family of four.

The first proposal would provide private insurance coverage to working poor adults and subsidies to adults making up to 300% of the federal poverty level. It would create a health insurance exchange that would offer information and guidance to help consumers make informed choices about what plan would be best for them. Uninsured workers who make more than 300% of the FPL could access information on the exchange and buy from it.

Proposal two requires that all Coloradans carry health insurance. This proposal would require those citizens who do not have coverage to pay a tax penalty. It would cover children up to 250% FPL, expand Medicaid to cover parents up to 100% FPL, and provide subsidies for those individuals who are up to 250% FPL. To help contain rising health insurance costs, this proposal would reform medical malpractice laws and put a limit on noneconomic damages that could be recovered.

Like the second proposal, proposal three also requires that all Colorado residents have health insurance or face an income tax penalty. But unlike the previous proposal, this one requires that employers either contribute to their employees' coverage or pay an assessment. To keep costs down for individuals and small businesses, the proposal would merge the two into one risk pool, which would give these purchasers access to the same low costs that people in large insurance pools receive.

As a single-payer program, proposal four would create the Colorado Health Trust, which would be separate from the state budget. The major feature of this program is that it would cover everyone who has lived in Colorado for at least three months. To fund this proposal, Coloradans would pay through income tax and payroll deductions. Also, a statewide health information network would be established to allow health care providers access to the medical history of patients in order to provide a more informed diagnosis.

Created by the commission, the fifth proposal combines the best ideas from all 31 proposals that were received, as well as ideas from commission members. This proposal would also make health insurance mandatory for all Colorado residents and assess an income tax penalty for those without health insurance. Employers are required to offer a payroll deduction and pre-tax plans to offset some of the costs for individuals. It would provide subsidies for individuals and families living under 400% FPL.

The panel emphasized that it is not recommending any proposal to the legislature. Its only goal is to evaluate and present what it believes are the best proposals.

Currently, total health care spending in Colorado totals $30.1 billion. Implementing any of the five proposals will require state and local governments to spend more than they are currently paying. The single-payer program, proposal four, would require $15 billion in new expenditures, the highest of the proposals. The lowest would be proposal one, with an increase of $389 billion. The committee's proposal would require an additional $1.1 billion. Many of the cost differences arise from new state administration expenditures that would be required under the proposal.

A major challenge for the commission has been to ensure that rural Colorado residents are not left out of health care reform. Providing them with access to quality health care poses a difficult problem. This point was brought to light by panel member Clarke Becker, who noted that Crowley County has only one medical practitioner, a physician assistant (she is also the coroner). If the Colorado legislature is serious about improving health care to all residents, Becker emphasized that finding ways to improve the care offered to these citizens needs to be addressed.

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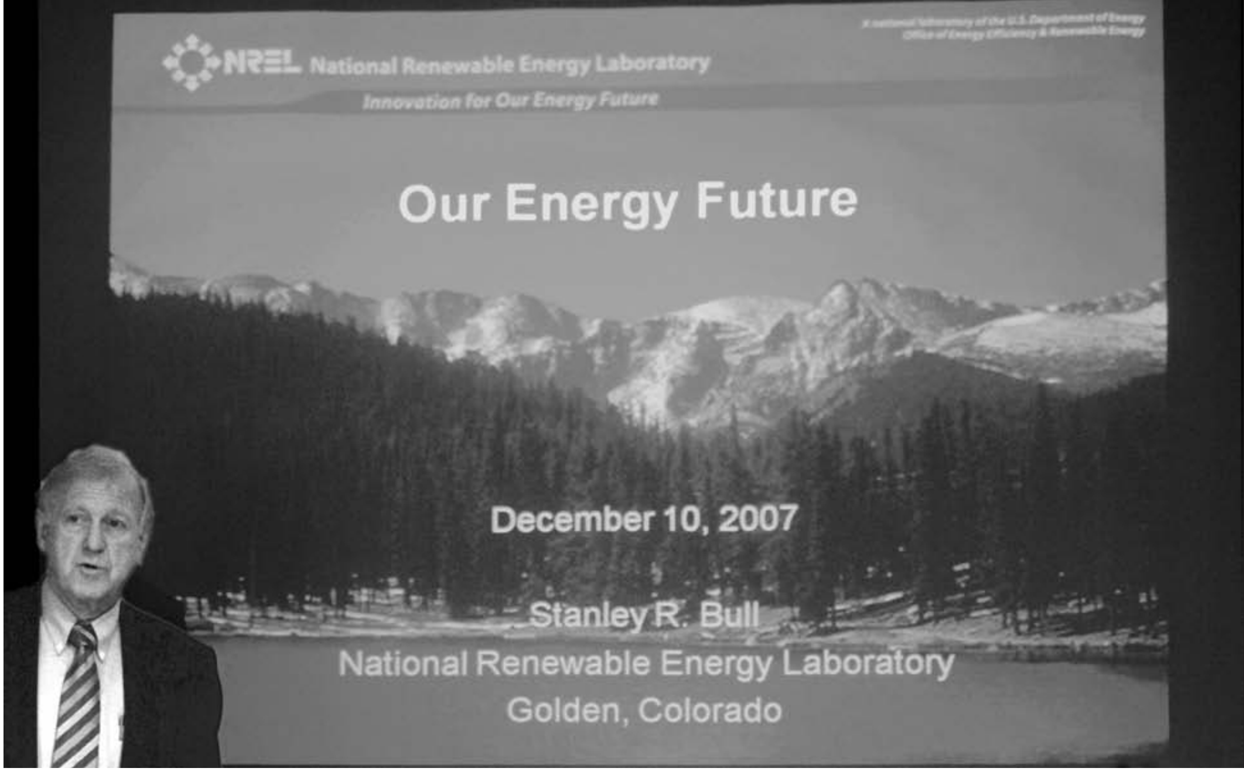

Stan Bull of the National Renewable Energy Laboratory examines potential environmentally friendly energy solutions at the energy breakout session.

Forum Breakout Session

Our Energy Future

Colin Hickey

We need energy. There is no light way to put it, and no way around it. Maintenance of our current quality of life and economic growth in the future will require energy. The "Our Energy Future" discussion session at the 2008 Business Economic Outlook Forum tackled some of the issues that stem from this demand. Where will it come from? What will it cost? Will it be reliable and sustainable for businesses and the environment?

With these thoughts in mind, panel moderator John Tobin of the Energy Literacy Project opened the session by noting that the energy economy is a global economy. Although wind and solar energy grew significantly in the recent past, the overwhelming majority of U.S. energy comes from oil, coal, and natural gas. With the energy that the nation will need moving forward, it does not appear that these sources will be supplanted either. For economic growth, Tobin argues, the concern is with "additional energy" not "alternative energy."

Panelist Tim Sheesley of Xcel Energy brought the discussion back to a more local perspective, addressing current and future energy prices, utility bills, and natural gas and electricity trends as they relate to Coloradans. Between 1987 and 2007 the Denver-Boulder CPI increased 83%. During this time, gasoline costs increased 184%, but electricity only increased 22%. In addition, Colorado benefited from the cheapest natural gas prices in the nation. Effectively, Coloradans have had the luxury of incredibly low utility bills for some time. With the Rockies Express Pipeline LLC coming online, natural gas prices will adjust to national prices, perhaps bringing the end of the relatively low cost utility days in Colorado. Future Colorado gas prices will depend more on pipeline capacity versus production.

From the production side, volatile wholesale prices, higher costs, and the recent trend of

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HEALTH CARE REFORM, CONTINUED FROM PAGE 6

The panel also stressed the need to improve health information tracking technology. Under the current system, every time an individual sees a new doctor, that doctor has no record of the medical history of the patient. By improving the flow of patients' health records, patients have more freedom to change doctors. This may promote competition between doctors and help to decrease prices.

The commission found that when it evaluated each proposal, it was not able to factor in the labor shortage of health care workers. The panel noted that the labor deficit in the state could lead to rising insurance costs in the near future. If the state imposes too many mandates on insurance providers and doctors, the panel speculated that rising costs, coupled with state mandates, may lead to insurance and health care providers deciding not to do business in Colorado.

Despite the need to improve the health care system, Donna Marshall remarked that the legislature may put the Committee's recommendation report on the back burner in 2008. Due to Colorado's tight state budget and the fact that each proposal requires increased state spending, the legislature may be limited on the actions it can take on the issue. Moving forward with any change in the structure of the state's health care system may require a ballot initiative in order to increase spending.

For more information on the commission and its report, visit: www.colorado.gov/208commission/

Scott Vos is a former student research assistant with the Business Research Division.

ABOUT 6% OF THE NATION'S ENERGY SUPPLY COMES FROM RENEWABLE SOURCES, AND MOST OF THAT IS FROM BIOMASS AND HYDROELECTRIC.

declining natural gas use per customer is forcing some Colorado retail gas providers to respond with higher charges and more frequent price changes, decoupling, and accelerating capital recovery.

Additional factors affecting the state's natural gas producers stem from the renewable energy standard enacted under Amendment 37 and recently revised by HB 1281. Beyond 2020, 20% of electricity sales must come from renewable sources, with at least 4% of that from solar. This standard must be met by increasing bills by no more than 2%. These moves will result in a transition from Colorado energy billing being "least-cost" focused to "reasonable-cost" focused. This shift is also a move toward demand-side management. These mandates have provided the opportunity to repower the aging fleet of electricity production plants. Coal plants will be decommissioned, and 1,800 more megawatts (MW) of wind energy should be incorporated, as well as 425 MW of solar power.

John Harpole of Mercator Energy expanded the discussion of natural gas in Colorado by looking at both supply and demand issues. Currently, on an average winter day the U.S. consumes 80 billion cubic feet (Bcf) of gas. Even though the gas rig count has increased dramatically, total gas production has not. To keep up with demand, new sources and reserves will need to be tapped. However, the gas reserves that do exist in the United States are not located near the population driving demand. Accessing these reserves to meet demand would necessitate massive capital investment in transportation infrastructure. The majority of U.S. gas reserves are in unconventional sources such as gas shales, coalbed methane, and, most notably, tight sands. All of these sources require costly retrieval methods. It is likely that the increased demand will continue to outstrip domestic supply, leading to the import of foreign liquefied natural gas.

With the U.S. trying to minimize its reliance on oil and coal, much of the increase in energy demand is anticipated to be met by natural gas in the coming decades. The vast majority of the world's gas reserves are outside North America, with the largest proved reserves in Russia and Iran (1,680 trillion cubic feet [TCF] and 971 TCF, respectively). The largest gas extractor in the world is a Russian company, Gazprom, which has a near monopoly on European gas, with projections that it will supply about 70% of EU gas by 2020.

Stan Bull with the National Renewable Energy Laboratory turned the discussion of the enormous energy challenges facing Colorado and the world toward potential environmentally friendly solutions. About 6% of the nation's energy supply comes from renewable sources, and most of that is from biomass and hydroelectric. Bull laid out strategies to improve upon that percentage.

While the delivery of energy to the consumer is multifaceted, potential exists to improve the path at every step. At the most fundamental level, the exploration and harness of wind, solar, biomass, geothermal, hydro, and tidal energy resources is crucial. If science can advance in areas such as electricity transmission and distribution, hydrogen delivery, and alternative fuels, it can become more economical to expand and maximize this renewable potential.

Since the 1980s, solar and wind energy cost reductions have occurred, dropping by a factor of 5 and 10, respectively. Wind costs have become more competitive, and are expected to be 3.6¢/kWh in 2012. In the long term, wind energy has the potential to supply 20% of the nation's energy supply. However, this will hinge on advancing rotor development and transmission technology.

While still quite expensive, solar has the potential to drop in price to 5-10¢/kWh. With advances in nanomaterials and manufacturing techniques, as well as higher efficiency devices, hopes are that the next generation of solar collectors and storage devices will dramatically increase capacity and make solar competitive by 2015. Japan has already expanded its solar capacity to nearly 1,000 MW. Again, these developments come in the wake of incentives, which have not manifested in the United States.

Biofuels have the most immediate potential to impact the transportation fuel sector. Without the dramatic shift to electric plug-ins, biofuels can readily displace petrol in combustion engines. Stated U.S. goals put biofuels production at 30% of the 2004 gasoline consumption by 2030. Promising advances in cellulosic ethanol and use of waste residues provide increased opportunities for biofuels in this area.

Moving forward, it will be vital to integrate all efficiency and renewable features into communities. At every level, these and other innovations can drastically reduce waste energy and enhance long-term sustainability. As climate change talks wrap up in Bali, the coming years could represent a fundamental shift in our economy and how the energy industry interacts with the environment. It certainly is true that energy is needed for economic development, but energy production should occur with regard to the cost of environmental degradation.

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Serving Interests

So how hard is it to press a green movement through a public corporation? Wind generation, power conservation, charity fund-raising campaigns, carpooling incentives, LEED-certified developments, hormone-free beef in its restaurants—everyone will surely love the new Vail. Wrong. Katz was caught between the greens—both the environmentalists and the corporate capitalists. Naysayers criticized the 100% wind energy campaign because the company was merely offsetting its energy with wind credits purchased, while corporate investors questioned why the resort should take such measures if it did not directly impact the bottom line.

Addressing Collins's concepts "genius of '*and*' and tyranny of '*or*,'" Katz relented that helping the environment does not have to be an "either or" scenario. It is possible for Vail to become a greener company while seeking company growth and profits. Relating to the automobile industry, American car makers pushed back on EPA fuel and emissions standards, while Toyota adopted fuel efficiency as a niche market. Now Ford, GM, and Chrysler are playing catch-up, and Toyota is reaping the benefits. By focusing on the "genius of '*and*,'" Vail can serve both environmental and shareholder goals. In fact, the company receives e-mail messages from customers that indicate the reason for visiting Vail over competitors is because of its positive environmental choices.

Corporate Leader

Setting a seemingly insurmountable goal may appear to be a risk, but it creates something to rally behind. It sets the stage for people to make it happen and to fill in the gaps. These "big, hairy, audacious goals," as Collins refers to them, are long term and an umbrella that governs everything that the company does. For Vail, this includes terrific financial and profitability results, a high standard for corporate social responsibility, and a fun place to work.

According to Katz, when Vail started down the sustainability path, company leaders knew "not to try and start the effort by claiming to be the most environmental company out there, because we're not, or claiming that we are even a great one, because we're not." The point was to start moving toward that goal by taking greener steps, and others would then follow.

The company announced Ever Vail, a $1 billion, 1 million-square foot resort village, slated to be the largest LEED-certified resort-use project in North America, and one of the first projects considered for LEED's new "Neighborhood Development" certification program. As a partial redevelopment of the West Lionshead site, Ever Vail will include residences, a hotel, retail shops and restaurants, leasable offices, higher education facilities, municipal offices, mountain operations facilities, a public parking garage, a public park, and a new gondola.

While Vail is 100% powered by wind, only uses hormone-free beef in its restaurants, has a "use less do more" energy conservation campaign, and is developing the LEED-certified Ever Vail project, Katz said that sometimes it is not the initial project or initiative that has the greatest short-term impact. He pointed to Vail's matching campaign for the National Park Service Foundation that matches $0.50 for every dollar contributed by customers. The funds are spent on conservation efforts in Colorado's White River National Forest and the national forests of Lake Tahoe Basin in California and Nevada, where the firm's five mountain resorts are located. These are all programs that strive to make Vail a part of Colorado's new eco-economy.

State Leader

With agriculture and tourism arguably the number one and number two industries in Colorado, the state depends on the well-being of the land, the environment, and the outdoors. Katz says,

> "One predominant, overwhelming asset that stretches across our state is recreation in the outdoors. In a sense, it is what makes Colorado, Colorado and not Kansas . . . [O]ur state has a special opportunity and obligation to do the right thing for the environment. In the end, it is critical to really do the right thing that makes the state so special and it will take the right leadership to sell the state and make sure more people and more companies continue to come here."

The state is, in fact, making strides in sustainability. Governor Ritter recently announced Colorado's first Climate Action Plan, which includes:

- Reducing greenhouse house emissions by 20% below the 2005 level by 2020;
- Developing an agricultural program to sequester carbon and reduce emissions on agricultural lands;
- Reducing emissions from passenger vehicles by adopting emissions standards; and
- Partnering with research institutions and industry to develop clean coal technologies, reduce methane leakage from natural gas drilling, as well as new energy resource technologies.

For more information, see the Climate Action Plan at www.colorado.gov/governor.

Katz emphasizes that Colorado has an opportunity to be a leader in this eco-economy. The state should be working to develop alternative fuels, connect people with suppliers of alternative energy, and create programs for transportation. "This is something that is easily achievable and that we will all benefit from in this state for years to come."

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build a town center in a field and wait for the homes to come, but right now, they're not coming. And retail follows rooftops. And so if you are going to do those types of projects in a field, then you better have patient, patient money." Beyond mixed-use, Brownfield developments, de-malling, transit-oriented developments, villages/lifestyle developments, and sustainable/green building provide great retail opportunities.

The major contributors to this strong performance are also the guiding tenants that firms like Miller Weingarten love to do business with. Target, Costco, Home Depot, and Kohl's are the current "darlings of the industry" that generate the most sales per square foot, have negligible delinquency costs, and attract other retailers to build close by. Fast-casual restaurant chains are growing aggressively. Drive-thru restaurants and the classic sit-downs are being replaced by quicker, more convenient, and often healthier options, such as Chipotle, Noodles & Company, and Tokyo Joes. Once considered to be subject to inevitable extinction due to the home theater systems, movie theaters are actually experiencing revenue increases of up to 6% and are preferred tenants for some realtors. Some fears are looming that are forcing retailers to maintain a "cautious" outlook for the future. Record gas prices will reduce spending, and the recent downward trend of the stock market will create a negative wealth effect.

SOME FEARS ARE LOOMING THAT ARE FORCING RETAILERS TO MAINTAIN A "CAUTIOUS" OUTLOOK FOR THE FUTURE.

In closing his presentation, Moran provided a visual example of why the retailers uphold optimism. He showed a video of a Boise, Idaho, mall opening at 1 a.m. on the most recent Black Friday, where 30,000 people literally crammed through glass doors and past threatening police to get a head start on season sales.

Office

Phil Ruschmeyer of CB Richard Ellis provided insight on the Denver office market. The office market has been experiencing trends similar to those of other commercial markets: steady performance and strong growth projections, with only a small impact felt from the subprime crisis. Lease rates have climbed 12% metrowide and 20% in downtown Denver in the last 18 months. Vacancy in local areas is down by 150 basis points, to 12.9% overall. The market has experienced 14 straight quarters of positive absorption and lease rates at round $20 per square foot (psf) for Class A property. According to Ruschmeyer, all of these factors point to the highest level of activity in Denver in the last 20 years.

With vacancy rates dropping below 9%, lease rates in downtown Denver are about $26 psf, while Class A properties are going for $28 and AA properties are nearly $40. Approximately 1.2 million feet of office space is under construction downtown. Southeast Denver is experiencing vacancy rates around 12.7%, with overall lease rates topping $20 psf. Northwest Denver vacancy rates are at 14.6%, with overall lease rates nearing $19 psf.

The market outlook for 2008 includes rental rate growth at above-average and above-inflation rates, with submarkets rental rates spiking due to a lack of supply. Sustained expansion could drive vacancy rates down to 10%. However, continued struggles in the housing market, as well as increasing energy and construction costs, will have a potential slowing effect. The impact of the credit crisis is already being felt in the market, with a tighter debt market and a decline in sales in late-2007.

Mixed-Use and Transit-Oriented Development

The final speaker on the panel was Mike Rinner of The Genesis Group. He shared insights on one of the brightest spots that developers today are fighting to get a piece of—mixed-use and transit-oriented development projects.

Rinner broadened the scope of mixed-use developments, characterizing them not solely by the physical building or by the broader development, but by the location. Rinner stated, "If you think about it, downtown Denver is pretty much mixed-use by definition." Basically, mixed-use refers to what a resident has convenient access to, not the building they reside in. Examining downtown Denver and the surrounding area, the number of rental and for sale units brought on line since 1990 has increased at a compound annual growth rate of 25.6%. Of the growth from 1990 to 2006, 64% of the for-sale units and 75% of the apartments were added in only the last six years.

Recently, it has been airports that have been redeveloped into mixed-use areas that basically function as separate communities. With the restorations of Lowry Air Force Base and Stapleton Airport, 10% of all new home sales and 25% of all attached new home sales are now in mixed-use areas, while 16% of all attached new home sales are in transit-oriented developments. These numbers are expected to rise.

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Forum Q&A panelists, from left to right, are: forum director Richard Wobbekind; Tucker Hart Adams, The Adams Group, Inc.; Tim Sheesley, Xcel Energy; and Todd Saliman, Governor's Office of State Planning and Budgeting.

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inflation continue to exist, due, in part, to rising oil prices and the falling value of the dollar. The fear is that foreign investors will be less interested in holding dollar-denominated stocks and bonds because their value has decreased against other currencies. The sinking dollar will put limited inflationary pressure on imported goods.

- The Federal Reserve will remain focused on maintaining a balance between the threat of weak growth and higher inflation. Many Fed watchers believe that the Federal Reserve will spend most of 2008 observing from the sidelines, although diverse opinions exist on this topic.
- The upcoming November elections may result in political gridlock during the year.
- Real GDP growth in the United States will improve in 2008, but remain well below potential. Personal consumption, business investment, and government spending will show solid growth.
- Federal budget and trade deficits will remain risks.
- Individuals' wealth will continue to rise and fall based on changes in housing prices and financial markets, potentially influencing consumption.

Key Colorado Issues

The following state issues will help shape Colorado's economy this year:

- Growth in renewable and traditional energy will play an ever-changing role in the development of the state economy. Consequently, severance tax collection and distribution will become a hotter topic of discussion.
- Denver was selected as the site of the Democratic National Convention to be held in August. Approximately 35,000 delegates, political enthusiasts, politicians, and media will visit the city. It is estimated that Denver will reap more than $150 million in economic benefits from the event and draw attention to the area.
- The Colorado general fund for the 2008 fiscal year is expected to increase 3%. With TABOR restrictions on hold, the state can continue to provide better services with the increased tax revenues.
- According to the Business Leaders Confidence Index®, the top three issues facing the state are funding and providing quality education, immigration, and water availability.

Around the State

The following snapshots of economic activity are from economists around the state.

Boulder County—Boulder County's population growth has slowed to a sustainable pace of approximately 1% per year. While more than one-third of the county's estimated 297,000 residents live in the City of Boulder, much of the population growth has occurred in other communities. Population growth in the county is expected to continue at current levels. The number of jobs in the county rose an estimated 3% in 2007, outpacing employment growth in the nation (1.3%) and Colorado (2.4%). Unemployment continues to be low, falling from 3.8% at mid-year 2006 to 3% at mid-year 2007. Boulder County has a high concentration of professional and scientific jobs, supported by the University of Colorado; major federally funded research facilities; and companies in the aerospace, bioscience, information, and manufacturing clusters. Jobs that pay higher than average wages, along with a well-educated and highly skilled labor force, have contributed to the higher than average income levels for county residents.

La Plata County—The La Plata County economy is highly seasonal, with most tourism occurring during the summer months. A mitigating factor to this seasonality is Fort Lewis College. Since 2001, per capita income has been

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increasing at a faster rate in La Plata County than in the state, 5.1% compared to 2.7%. Construction, retail, tourism, healthcare, and natural gas extraction are significant contributors to the local economy. Population growth will continue to fuel the construction and real estate sectors of the economy. Comparing Q2 2006 to Q2 2007, population in La Plata County increased 2.5% (as measured by the number of new residential electric meters installed). Although it appears that the La Plata County housing market is cooling off from recent years, it is still relatively strong, with median residential housing prices rising 9.7% from Q2 2006 to Q2 2007 (adjusted for inflation).

Mesa County—The Grand Junction GDP grew 80% over the past decade, and it was recently designated as the 15th fastest-growing economy in the nation. With energy extraction as the primary driver, followed by energy service industries and construction, the Grand Junction economy is projected to remain very strong. One of the immediate issues facing the county is the low unemployment rate. After falling to 2.8% in May 2007, it has since held steady at 3%. The rapid growth has also reduced housing and facility vacancy rates to all-time lows and driven up construction and land costs for both residential and commercial purposes.

Northern Colorado—Consistent with the overall mixed signals about both national and Colorado economies, Northern Colorado is expected to experience sluggish employment growth of 1.9%, or 4,000 new jobs. However, the region is projected to add a substantial number of jobs in high-paying supersectors, such as Professional, Scientific, and Technical Services; Financial Activities; and Healthcare. Emerging clean-energy technologies offer unique opportunities to help stem recent manufacturing job losses. In 2006, a total of 33 firms and organizations employed 2,132 workers in northern Colorado's clean-energy cluster.

Pueblo County—Historically, Pueblo County has experienced moderate population growth. This trend will change as a result of the announced development of the Pueblo Springs Ranch, a 23,000-acre subdivision in the northeast part of the county. At build-out, this project is projected total 75,000 households, translating into nearly 200,000 people. On the retail side, the Historic Arkansas Riverwalk Project (HARP) has begun to pay the economic dividends its creators intended. The Cingular Call Center is now fully operational, adding a workforce of nearly 500 to downtown Pueblo. In August 2007, the new headquarters of the Professional Bull Riders Association was dedicated. On a more somber note, Pueblo ranks fifth highest in the number of foreclosures per occupied dwelling for Colorado Front Range counties.

Southern Colorado (El Paso County)—The future of the southern Colorado economy appears to depend on better job and income growth from basic industry employers, low interest rates, a reduction in foreclosures and spiraling problems related to them, a rebound in residential construction, and the arrival of BRAC05 troops at Fort Carson. Foreclosure problems will improve if interest rates are cut, which will slightly benefit variable rate mortgages, and subprime mortgages begin to work their way out of the economy. As a result, demand for new residential housing will increase. One final positive to the southern Colorado economy is the anticipated arrival of 5,200 troops and their families in 2009. Because the expected positive turns will take 12–18 months to be realized, modest economic growth, at best, is projected for 2008.

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