Forum Keynote Address

A Day in the Life of Innovation

Brian Lewandowski

Barbara Mowry, senior vice president of data integration at Oracle, spoke from experience when discussing innovation in Colorado. Mowry comes from a long line of successful business ventures, including Comcast (TCI), United Airlines, and Requisite Technologies. While at the helm of her last company, Silver Creek Systems, the firm was acquired by Oracle.

Mowry asserts that great innovation centers—think Silicon Valley, Boston, and the Research Triangle in North Carolina—require an ecosystem that involves, at a minimum, six key elements.

- Great Research Universities. Research universities generate new ideas, spin off technologies, and educate the workforce. Two troubling concerns are (1) that the amount of federal R&D spending has been falling steadily, from 2% of GDP in the mid-1960s to 0.8%; and (2) current tight budgets mean new professors are not hired and access becomes more difficult for diverse segments of the population.

Rachel Ford

Governor-Elect John Hickenlooper confronted state budget concerns with humor and urgency at the opening of the 2011 Business Economic Outlook Forum this past December. He began by addressing a question raised by the recent recession: with reduced tax revenue, should policymakers focus on growing businesses or maintaining funding for current programs like Medicaid? Hickenlooper denied the validity of this question by arguing that a business-friendly culture is the foundation for supporting education, healthcare, and other programs.

With a few statistics, Hickenlooper summarized the effect the economy has already had on government programs. Colorado ranks second to last in the nation in funding for higher education. Thirty-four percent of school districts have cut the traditional 5-day school week to 4, 10-hour days to reduce transportation and facility costs. Even maintaining current roads comes with a $500 million price tag. The slow growth projected for 2011 offers no “silver bullet” for the lack of funding. With no public desire for increased taxes in the state, Hickenlooper recognized that support to social programs like Medicaid may have to be cut, despite increased need.

While he acknowledged the complexity of the economic situation, Hickenlooper presented 2011 as an opportunity to promote a business-friendly culture in Colorado, and encourage innovation that would “re-brand the state” as unique and valuable. His plans for the state include reducing the red tape that burdens small businesses and fine-tuning government programs to make them more effective, efficient, and elevated. Finally, Hickenlooper spoke passionately about Colorado citizens taking control of the future of their counties and designing customized plans for creating the culture and institutions that encourage business and employment.

Rachel Ford is a Student Research Assistant with the BRD. She may be contacted at Rachel.Ford@Colorado.EDU.

Governor-Elect John Hickenlooper
From the Editor

Given all the mixed signals, how will Colorado’s economy fare in 2011? This issue presents highlights of the 46th annual Colorado Business Economic Outlook Forum, which was held on December 6 at the Grand Hyatt Hotel in Denver. The half-day event featured remarks by Governor-Elect John Hickenlooper; an employment forecast for industry sectors; a keynote address by Barbara Mowry, Senior Vice President for Data Integration at Oracle; and three industry discussion sessions.

For additional details, visit our website, leeds.colorado.edu/brd.

—Richard Wobbekind

Reticent Recovery

Modest Employment Growth Forecast for 2011

The following observations summarize the thoughts of the Colorado Business Economic Outlook committee members for 2011 and beyond:

From 2000 through 2010, Colorado experienced two recessions with far-reaching results—the net employment loss was 2,900 jobs over the period. Despite six growth years, with the number of new jobs varying from 13,100 to 53,100, the four years with employment declines ranged from –31,400 to –104,700. While employment losses were status quo in every state in 2009—and 80% lost jobs the following year—Colorado lagged the nation in creating new jobs.

The Colorado Business Economic Outlook committees estimated 2010 to be a net employment loss for the state of 34,700, or 1.5%, despite adding 83,000 to the state’s population. The consensus of the 2011 estimating committees is that Colorado will experience modest employment growth of 10,100 new jobs—the first net employment gain since 2008.

The structural shift away from goods-producing sectors was profound from 2000 through 2010. Goods-producing sectors lost a net 102,700 jobs, compared the gain of 99,800 jobs in services-producing sectors. In 2011, this trend is expected to continue, with goods declining by 5,600 jobs and services increasing by 15,700 jobs.

Mining and Logging, Construction, and Manufacturing—all goods-producing sectors—are particularly susceptible to economic cycles. Mining and Logging is impacted both by consumption and speculation on commodities, and is anticipated to add 2,000 jobs in 2011. Foreclosures, financing, and aggregate employment are all weighing heavily on the Construction industry, which is expected to decline by 7,000 jobs in 2011. Losses in Manufacturing will slow to 600 positions, with a slight gain of 100 in Nondurable Goods and a loss of 700 in Durable Goods.

The 2011 employment outlook for the services sectors is mixed. Professional and Business Services, typically a bellwether for state employment, will return to growth in 2011 of about 7,000 jobs, building on gains in the Professional, Scientific, and Technical subsectors. Trade, Transportation, and Utilities will show marginal gains after Retail and Wholesale Trade begin to rebound, adding 3,500 jobs in 2011.

The Education and Health Services Supersector will continue its march forward, climbing by 3,300 positions, with Heathcare stemming losses incurred in Private Education. Leisure and Hospitality will add 3,000 jobs in 2011 as business travel and conventions increase and as consumers gain confidence and increase leisure travel. Other Services will rise by 1,400 jobs as households and companies step up spending on Repair and Maintenance Services. Financial Activities will add 700 jobs, with marginal increases in both the Finance and Insurance Sector, and the Real Estate and Rental and Leasing Sector.

Government and Information are the two services-producing sectors that are projected to shed jobs in 2011. Government typically lags the economy in cutting jobs, but the employment prospect is especially grim in 2011 as the financial crisis catches up with local government and the calls to reel in the federal government swell. Information will continue to contract as Publishing restructures and adapts to changing media.

The effects of the national recession will be felt well beyond 2010. Colorado remains home to extraordinary thought leaders and entrepreneurs, high-tech companies and abundant natural resources, eager citizens and world-class recreation. While the committees expect only marginal employment improvement in 2011, the foundation is set and the conditions are primed for Colorado to accelerate employment growth for the next decade.

For more information on each industry sector, visit the BRD’s website at leeds.colorado.edu/brd.
Opinions expressed by panelists reflect the most current market information available as of early December.

The baby boom generation (roughly those born between the years 1946 and 1964) is rapidly approaching retirement. As they do, Colorado, like the rest of the nation, faces tough new challenges balancing the state budget and encouraging economic growth. In this breakout session at the Outlook Forum, David Keyser, an economist with the State Demography Office, moderated a panel discussion among government and private-sector analysts that focused on population, labor force, and migration forecasts, providing detailed insight on what lies ahead for the state.

Upon retirement, individuals’ income is much smaller, and thus the amount they contribute to income taxes to local and state coffers is greatly reduced. Consequently, this forces these levels of government to subsist on tax revenue generated by the younger working generation. This workforce, however, is simply not large enough to replace and support the retiring baby boomers. This problem, as State Demography Office director Elizabeth Garner explained, is a significant obstacle in the way of long-term economic growth for Colorado. The growing elderly population will place greater demands on the state’s healthcare and other sectors, forcing the state government, already suffering from an inadequate revenue base due to recession, to cope with even larger budget deficits. To provide some context for these issues, the annual population growth rate for the United States is projected to average around 1% through the year 2020. Colorado is expected to experience population growth of around 1.8% annually. The retired population in Colorado alone, however, will dwarf both of these growth rates, increasing at roughly 6.1% annually. As Garner stated, “[Colorado] will not be able to grow its way out of this problem.” In fact, growth is the problem.

Steve Fisher, an economist, and Phyllis Resnick, of R Squared Analysis, elaborated on the effect this population growth will have on sales tax and income tax revenues for local and state governments. As citizens age, they spend higher proportions of their income and savings on services that are currently not taxable, such as luxuries. With Colorado’s population growing proportionally older over the coming years, the state will experience broad-based declines in both income tax and sales tax revenue. In recessionary times, these painful blows to state funds are magnified as spending mandates for entitlement programs require other vital programs to absorb drastic cuts or be eliminated entirely. Furthermore, this trend also means that while state entitlement programs will face growing demands for services from the elderly population, fewer monetary resources will be available to support them.

Melodie Beck, with the Joint Budget Committee staff, elaborated on these demographic shifts and their effects on entitlement programs, particularly Medicaid. With gross inefficiencies already plaguing the U.S. healthcare system, providing Medicaid to qualified seniors has so far proven to be unsustainably expensive. More than half of all federal funding for Colorado goes to supporting Medicaid, and by the year 2015, nearly one in five Coloradans will depend on Medicaid, with federal support running dry. These issues, coupled with the long-term problems of the government’s increasing obligations to Colorado’s growing retired population, make it apparent that Medicaid and the tax code supporting it must be reformed in order to avoid further budget crises. As the panelists explained, this reform cannot consist solely of spending cuts or tax increases alone.

Rather, to make the state solvent over the long term, the panelists called for both spending cuts and an expansion of the state’s tax base to be enacted in tandem. Admittedly, this could inhibit long-run economic growth for Colorado as a whole to a certain extent. However, these are necessary sacrifices to protect against future instability and to ensure a balanced state budget.

While Colorado has been considered a relatively “young” state until recently, the forecasts presented in this session painted a rather grim economic picture as a result of demographic shifts. Through comprehensive tax and entitlement reform, however, the state can put itself on the right track toward sustainable economic prosperity and stability. Transcending political partisanship, Coloradans together must address these issues concerning the state budget to protect Colorado’s overall economic well-being moving forward.

MORE THAN HALF OF ALL FEDERAL FUNDING FOR COLORADO GOES TO SUPPORTING MEDICAID.
Opinions expressed by panelists reflect the most current market information available as of early December.

There is good news in the conventions and tourism industry. Colorado seems to have weathered the economic storm fairly well. Breakout session moderator Richard Scharf, president and CEO of VISIT DENVER, Denver’s Convention and Visitors Bureau, pointed out that this industry is a cyclical one, and nationwide it was deeply affected by the recession. That said, conventions had a banner year in 2010, visitation to the state was up, and Denver International Airport (DIA) experienced record-setting traffic.

Overview

In the lodging industry, RevPAR is increasing, and Denver is doing particularly well. Occupancy rates are also expected to increase.

New hotels, including the Ritz-Carlton and the Four Seasons, as well as the newly renovated Sheraton hotel (formerly the Adam’s Mark), offer visitors new choices in downtown Denver.

Group and business travelers are behind the recovery, according to Bill Hopping of W.R. Hopping and Company, Inc. Leisure segments continue to lag and will likely continue to do so until employment improves and the unemployment rate falls. This means that weekend recovery will lag because it is harder to fill rooms on weekends and recover weekend rates with a depressed leisure travel segment.

Conventions

Rachel Benedick, with VISIT DENVER, reported that Denver’s convention industry has been strong in terms of number of conventions and visitors, despite the economic slump. The city experienced an outstanding 2009 due to a great convention lineup that was partially due to 10 years of hard work, since convention business is often booked a decade or more in advance. Bookings in 2010—also a banner year—include meetings of the American Public Health Association and the

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### ESTIMATED NET JOBS CREATED IN NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT SECTORS

(In Thousands)

<table>
<thead>
<tr>
<th>Sector</th>
<th>2000-2010&lt;sup&gt;a&lt;/sup&gt;</th>
<th>2009&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2010&lt;sup&gt;b&lt;/sup&gt;</th>
<th>2011&lt;sup&gt;c&lt;/sup&gt;</th>
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<tr>
<td>Mining and Logging</td>
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<td><strong>-49.3</strong></td>
<td><strong>-23.1</strong></td>
<td><strong>-5.6</strong></td>
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<tr>
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<td>-104.7</td>
<td>-34.7</td>
<td>10.1</td>
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<sup>a</sup>Revised.

<sup>b</sup>Estimated.

<sup>c</sup>Forecast.

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committees.
National League of Cities—which, even though it has only 3,500 members, was significant because the convention was held right after Thanksgiving, a notoriously difficult time for convention business. Business travel has also increased, with Denver growing its market share.

Looking forward, the focus will be on building on that success. One way to do this is to increase the “add-on” days that convention and business travelers include with trips, which is currently an average of approximately two days for 40% of these visitors. Colorado’s variety of attractions, including great restaurants, stunning natural scenery, top-notch recreational activities, culture, and blockbuster exhibits, offer visitors many opportunities to extend their stay.

Tourism

According to Jayne Buck, vice president of tourism for VISIT DENVER, Denver actually saw a 0.2% shift in market share in 2009—2.6% compared to 2.4% the previous year. This may not seem like a big jump; however, as Clayton Reid of MMG Worldwide pointed out, it represents an increase of $618 million in spending. With metrics up in 2009 and in 2010 to date, Reid estimates that the state will again increase its market share in 2011.

A key marketing focus was leading with the “value” proposition (which is not the same thing as price) and being more region-oriented to entice visitors who are looking for economical vacations by traveling close to home. Since Colorado continued its marketing efforts throughout the downturn, it will be in a good position when the economy picks up.

Both the marketable visitor segment—those who are not visiting family or friends and choose a location to visit simply because they want to come—and the friends and family segment were up 4% in 2009. While both are important to the industry, marketable visitors tend to have a greater economic impact because they are more likely to stay in hotels and generally spend more money.

Colorado, and especially Denver, is very fortunate to have a world-class airport, which helps drive the industry. Direct flights minimize time out of the office. DIA set passenger records for three consecutive months—August, September, and October—in 2010. Nationally, the airline industry has done well during the recession due to a turn around on yield, not demand.

Future Outlook

In terms of conventions, Colorado and Denver will have to focus on becoming more competitive with cities like Las Vegas, Phoenix, San Diego, San Francisco, Orlando, and Washington D.C. Denver is currently in the top 10 for conventions, so the goal is to deliver at a level where customers will come back.

Denver and Colorado are now year-round destinations. In the past, Colorado was seen primarily as a winter ski destination. A goal for the tourism industry is to break down the misperception that Colorado is only about skiing and mountains. The Rocky Mountains are just the beginning of the experience that visitors can have in Colorado. The world’s first exhibition of authentic pirate treasure, organized by National Geographic and Arts and Exhibitions International, is coming to the Denver Museum of Nature & Science in March. This blockbuster exhibit, like the Tutankhamun: The Golden King and the Great Pharaoh exhibit at the Denver Art Museum, adds to the state’s unique heritage- and culture-based offerings.

Internationally, Colorado has positive brand recognition, partially due to places like Vail and Aspen. Since international tourism depends heavily on packaged travel and accessibility, the next step for Colorado’s travel industry is to increase international flights in and out of DIA, particularly for Europe and Asia. Until more routes are added, growth will be minimal. Another attraction for the international market could be in areas like dude ranches and agritourism. The “Western” experience is very popular with Europeans.

While the future is bright for conventions and tourism, the panelists expressed some concerns. The chief of these is maintaining—and growing—the state’s market share, and ensuring that the tourism marketing budget is not cut. It is also important that DIA continues to expand its flights, especially internationally, to make the state as accessible as possible for business and leisure visitors alike.

Cassidy Kinnaird is a former Student Research Assistant with the BRD. She received a BA in Environmental Studies from CU-Boulder in December.
Opinions expressed by panelists reflect the most current market information available as of early December.

The real estate market continues to struggle as it begins a slow recovery after bottoming out in 2009. As prices and interest rates continue to lag the economic recovery, tenants will seek to lock in new leases at lower rates in return for long-term contracts. Tom Thibodeau, professor of real estate at the Leeds School of Business, outlined his concerns and outlook for the real estate market as a whole before turning the presentation over to industry panelists who discussed in detail the residential, office, industrial, and retail markets. In his overview, Thibodeau acknowledged that banks are still on guard, and as a result, commercial property loans will still be stringent in the 2011. That said, distressed commercial real estate is down in 2010 compared to previous years but is improving.

Residential

Mike Rinner, with The Genesis Group, outlined his concerns and prospects for 2011 in the residential real estate market. The S&P/Case-Shiller House Price Index for MSAs between 2000 and 2010 reveals that Denver has had one of the least volatile markets in the country when matched against comparable cities. Since the highs reached in 2006, the 20-city average has dropped 32.6% compared to 14.3% for Denver. Contextually, Las Vegas has contracted 57% since 2006, while Phoenix has slid 46.1%. Despite Denver’s track record against comparable U.S. cities in terms of housing prices, default rates still exceed 3%.

Positive signs in the market include historically low interest rates, both in terms of adjustable-rate mortgages and fixed-rate mortgages, and increased activity in mortgage-backed securities. Foreclosures continue to decrease, which will strengthen the market by alleviating the downward pressure foreclosures put on home prices.

Commercial

The commercial real estate market continues its road toward resurgence. This is attributable to the amount of distressed real estate that is disappearing as tenants receive more favorable rates and have started to dig their way out of the recession. The common theme for all property types is the increase in dollar volume and the number of properties sold. With these facts in mind, commercial real estate is plagued by a lack of financing, commercial loan delinquencies, and unemployment.

Office

Frank Kelly of CB Richard Ellis put into context the overall health of the office market within the Denver region, surmising that the office market is moving toward recovery, albeit slowly. Current market conditions already point to a better 2010 than 2009. Colorado has seen positive absorption for three straight quarters, although lease rates continue their gradual decline. Nonetheless, financing is still proving tricky for construction projects.

Downtown Denver is starting to see vacancy rates decrease, especially in LoDo, an area that has quietly become the new “downtown” of Denver. Direct vacancy rates for the downtown region have decreased to 14.1%, while class AA buildings remain below 5%.
campus in Louisville, highlighting the northwest office market for 2010.

The majority of leases within the region will continue to remain small in size, and tenants will leverage the market in an effort to obtain favorable renewal terms from existing landlords.

In the short term, the office real estate market will continue to stabilize as it moves out of the recessionary stage and into the recovery stage of the market cycle. Look for the suburban market to outpace the downtown market in the recovery effort and for Denver’s housing market to outpace the majority of the country. Investments will continue to be lethargic, and lease rates will finally begin to stabilize. The strong long-term fundamentals imprinted onto Denver’s housing market, along with its well capitalized owners, should help the city gather momentum for long-term growth.

Industrial

The Denver industrial market is considered the 22nd largest market in the country, and a second tier distribution center (first tier consists of Chicago, Dallas, and Los Angeles, among others). Although the Rocky Mountain Region is large, only 5% of the U.S. population can be reached within 500 miles of Denver. Jim Bolt of CB Richard Ellis stated that Denver is performing moderately, with small negative absorption and low vacancy rates.

Net absorption for Denver declined further in 2010 for the fourth straight year. Vacancy rates have remained fairly stable since 2006, rising at a modest rate but staying below 8%. Given market uncertainty, investors are proving to be cautious regarding projects and sites they are willing to finance. That said, Bolt stressed that financing is out there and becoming available. Construction of industrial buildings is expected to resume after 2011.

The industrial market has the potential for success in the coming years. Cap rates continue to decline due to building supply, and gradual rent growth could lead to a spike. Look for a trend in the reduction of distressed selling, and owners taking advantage of low and favorable interest rates.

Retail

The retail sector has weathered tough storms the past 12 months and certainly over the past few years. Retail real estate may be affected the most by the recession as the drivers of retail include consumer confidence, available consumer credit, low interest rates, and job growth. Jon Weisiger, with CB Richard Ellis, discussed the overall health of the Denver retail market.

Vacancy rates continue to decrease while absorption in Q3 2010 was positive. Retail sales showed growth year-over-year, and consumer confidence has improved—two important signs for the retail real estate segment. However, little construction is expected in 2011.

In terms of the market cycle, outlet, grocery, and community centers lag the furthest behind and are virtually still in the expansionary phases. However, the box segment, lifestyle centers, and regional malls are in recessionary phases. In 2011, look for the trend of the “smart shopper” to remain as customers will continue to demand the highest value for their money. The ability of retailers to directly adapt to these changing market conditions and to consumers will dictate the health of the retail segment.

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to as many large companies. Consider all of the large companies in the Boston and San Francisco areas that can feed entrepreneurial companies with management talent and provide a market for products.

- **Business-Friendly Environment.** Generally Colorado does well in this area; however, in times of economic uncertainty discussions arise about boosting revenues through taxes and increasing regulations which can negatively affect the business climate.

- **Ecosystem of Advisors.** Colorado has the necessary business services infrastructure for start-up companies. Accounting and law firms and banks understand that these companies have unique capital needs.

- **Access to Capital.** Colorado has a solid technology transfer process at many universities, we have local angel investors and organized groups that help entrepreneurs get started, but the U.S. venture capital community is undergoing a major shift in our economy that is greatly affecting the state. It is troubling that much of the VC funding dried up during the recession. With limited local funds available, out-of-state VC firms will have to invest in local tech companies. This makes it more difficult for Colorado companies to get funding.

These are clearly tough economic times, but in spite of the current situation our knowledge economy is based on innovation and information technologies. This is driven by start-ups and entrepreneurs, who rely on these six key elements—great research universities, an educated workforce, access to management talent, a business-friendly environment, an ecosystem of advisors who understand start-up companies, and access to capital. Everyone wants to see a return to economic prosperity in the nation and in Colorado. Mowry believes that we must continue what we have done very successfully in our past and we must invest in creating the future we want through innovation.

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**COLORADO NONFARM EMPLOYMENT**

2011

In Thousands

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committees.