UNIVERSITY OF COLORADO AT BOULDER LEEDS SCHOOL OF BUSINESS

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Inside: Economic forecast for Colorado in 2004, Larissa Herda examines the **future of the telecom industry** on this page; Richard Wobbekind discusses the outlook for the **state's economic sectors** on page 2; and **summaries of industry discussion** sessions from the Colorado Business Economic Outlook Forum appear throughout.

Larissa Herda, President, CEO, and Chairman of the Board of Time Warner Telecom, gives the keynote speech at the 2004 Colorado Business Economic Outlook Forum.

The State of Colorado's Telecom Industry: One Competitor's Perspective

The following remarks were made at the 39th annual Colorado Business Economic Outlook Forum by keynote speaker Larissa Herda, President, CEO and Chairman of the Board of Time Warner Telecom Inc.

I'm always intrigued by end of the year forecasts and prognostications that occur in the world as we close one year and head into another. In fact, it seems to have become quite a sport to see who is right and who is wrong with their predictions each year. I'm reminded of some of the most significant predictions many educated people have made through the years.

I thought I would start out by sharing some of these doozys with you. They were in a category called "great predictions of the past century."

- An engineer at the Advanced Computer Systems Division of IBM asked, "But what is it good for?" when commenting on the microchip in 1968.
- The editor in charge of business books for Prentice Hall said in 1957, "I have traveled the length and breadth of this century and walked with the best people, and I can assure that data processing is a fad that won't last out the year."
- "Computers in the future may weigh no more than 1.5 tons," claimed *Popular Mechanics* magazine as it forecast the relentless march of science in 1949.
- Thomas Watson, chairman of IBM, said in 1943, "I think there is a world market for maybe five computers."
- In 1977, Ken Olsen, founder of Digital Equipment Corp, said, "There is no reason anyone would want a computer in their home."
- And my personal favorite: "640k of memory ought to be enough for anybody." Those famous words were uttered by Bill Gates in 1981.

While they are fun to hear—and in some cases rather shocking in light of actual events—it brings up an interesting observation.

Life, like business, is a transition, not a destination. And we're all learning along the way. Many of these comments came from thought leaders of their time, yet their crystal ball was no clearer than any of ours is today.

As I address my perspective on the state of the telecom marketplace, you will see that it is

CONTINUED ON PAGE 8

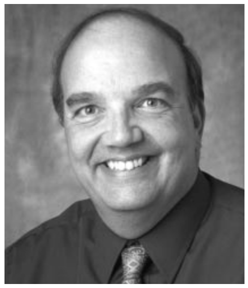
From the Editor

We usher in a new year with a summary of our 2004 Colorado Business Economic Outlook Forum, which was held in December, and a new look for our newsletter. In other news, the Business Research Division, along with the Colorado Office of Economic Development and International Trade and the Economic Developers Council of Colorado, released "Colorado's Economic Opportunities: Today, Tomorrow, and the Future" in January. The study looks at industries and local economies, and the relationship between the two, both today and in the future. For more details, visit our web site at <http://leeds.colorado.edu/brd/> or call me at 303-492-1147.

—Richard L. Wobbekind

by Richard Wobbekind

2004 Colorado Business Economic Outlook: Forum Sector Highlights



Richard Wobbekind

Employment—The goods-producing sectors of the economy will again show negative growth in 2004, with job losses totaling 5,000. These declines will be offset by growth in the service-producing sectors, which are expected to increase by 37,300 jobs. In 2004, overall employment will increase by 1.5%, or 32,300 total jobs.

Agriculture—If 2002 is remembered as the year of the drought, 2003 will be remembered as the year cattle prices rose to levels never before experienced. It is unlikely that these prices will continue into 2004. Crops in general are expected to show a modest increase next year. While 2003 appears to be a banner year for crop and livestock sales and net farm income, it remains to be seen how much impact the drought will have on future crops and livestock herds.

Natural Resources and Mining—In 2004 the Natural Resources and Mining Supersector will experience job growth for the fourth consecutive year. Eight hundred positions will be added in both 2003 and 2004, reaching a total of 14,700 jobs next year. This growth will be driven by increased production of natural gas. Crude oil and coal production are expected to remain flat, while carbon dioxide production is expected to decrease.

Construction—Construction lost about 15,800 jobs between 2001 and 2003. Another 4,700 jobs will disappear this year. Total valuation of construction is expected to increase by 7.1% on the strength of single-family and nonresidential construction. Gains in these areas will be offset by substantial decreases in multi-family and nonbuilding construction.

Manufacturing—After losing 25,000 jobs in 2001 and 2002, the Colorado manufacturing industry is expected to contract by another 11,000 jobs in 2003 and 1,100 jobs in 2004. Nondurable goods employment is anticipated to decrease by 1,200 positions in 2003 and 200 jobs this year. Cuts in durable goods employment are expected to be more severe, with a loss of 9,800 jobs in 2003 and 900 jobs in 2004.

Trade, Transportation, and Utilities—Between 1994 and 2002, about 9,800 positions were added annually to the TTU Supersector. The largest sector, Retail Trade, is expected to lose 1,100 jobs in 2003, but gain 3,100 jobs this year. This employment growth is based on projected retail sales growth of 3.5% in 2004. In addition, 1,600 jobs will be added in Wholesale Trade. With an improving economy and expansion at DIA, all areas of Transportation are expected to show slight increases in employment in 2004, adding a total of 900 jobs. The final sector, Utilities, is expected to grow by 100 jobs in 2004. Overall, the TTU Supersector will increase by 1.4%, or 5,600 positions.

Information—Employment in telecommunications, the primary component of this supersector, decreased from 46,800 to 36,400 jobs between 2001 and 2003. About 3,300 of these were lost in 2003. The second largest sector, Publishing, will contract by 400 jobs in 2003. All sectors are expected to show positive job growth in 2004, with overall Information employment posting a 3.7% gain, or 3,300 jobs.

Financial Activities—Between 1993 and 2002, Financial Activities grew at a compound annual growth rate of 2.8%, with the strongest employment growth occurring in securities, 6.6%. As a result of scandals and the downturn in the equities markets, about 1,100 jobs will be lost in securities in 2003. In 2004, the supersector will increase by 0.5%, or 700 jobs, with most of the jobs added in the Rental and Leasing Sector.

Professional and Business Services—Pent-up demand and growing confidence in the economy will increase the need for such services as engineering, computer systems design, and other professional or technical business services. In 2004, 6,300 jobs will be added in Professional and Technical Services, Administrative and Support Services will grow by 4,900 positions, and Management of Companies and Enterprises will gain 600 jobs. Overall, the PBS Supersector will post an increase of 4.2%, or 11,900 jobs, in 2004.

Educational and Health Services—This supersector showed growth ranging from 1.8% to 4.8% between 1994 and 2002, averaging 6,500 new jobs each year. Declines in education budgets should boost demand for services provided by private education organizations, increasing education employment by about 1,200 jobs in 2004. The larger Health-Care Sector is expected to grow by 3.7%, or 6,900 jobs, in 2004. Even though five new hospitals have been built in the metro area, employment gains will be limited by the supply of quality labor.

CONTINUED ON PAGE 5

State Faces Unresolved Tax Issues: Policymakers Deliberate Potential Fixes for 2004

Erin Hickey

It seems likely that 2004 will be a year of economic improvement in Colorado. Job growth is returning as is business spending, and the national and global outlooks are quite promising. With all the positives on the horizon, it can be easy to overlook some of the still-unresolved issues facing the state in the coming year. One such issue, tax reform, was the focus of a lively break-out session at the December 15th Colorado Business Economic Outlook Forum. Moderator Tom Clark, Denver Metro Chamber of Commerce, and panelists Diana Holland, Colorado Education Network; Wade Buchanan, The Bell Policy Center; and Rutt Bridges, The Bighorn Center for Public Policy, engaged in a discussion revolving primarily around the Taxpayer's Bill of Rights (TABOR).

TABOR was introduced in 1992 as a way to manage government growth and give voters more control over taxes. Despite its good intentions, TABOR has become problematic as a result of the recent recession. Looking ahead, the 2004 legislative period will be important as policymakers deliberate potential fixes to the current laws. With this in mind, the panelists identified the following as primary concerns going into 2004:

1. The state lacks a "rainy day fund" that would provide a cushion in times of economic distress.
2. TABOR's ratcheting effect, which regulates state spending based on the previous year's revenue levels, makes it difficult to recover from any economic downturns. Buchanan stressed that the revenue and spending limits created by TABOR are much too restrictive, and should be linked to economic growth. This would allow the state to feel the effects of a turnaround, rather than largely miss out on one.
3. The state's constitution limits the extent of any ballot initiative to a single subject. As a result, voters may be required to decide on multiple initiatives before the TABOR issue is resolved. Concerns about voter fatigue have many legislators worried.

Bridges, Buchanan, and Holland agreed that while voter fatigue may be a serious consideration, it is important that the TABOR issues are dealt with. Holland noted that some voter fatigue is certainly preferable to putting the issues off for another year or two, and Bridges agreed, adding that media fatigue will be much more prevalent than that of the voters.

Regardless of how many issues make it to the ballot, Colorado taxpayers will certainly have a lot to consider in 2004. The decisions made this year will have a major impact on the economic well being of the state and its many institutions. Bridges, Buchanan, and Holland ended their lively discussion by stressing the importance of having an informed voting public. This may prove to be a difficult task as voters will likely focus the bulk of their political attention on the 2004 presidential election. If legislators want to achieve any changes, it is a task that must be successful.

DESPITE ITS GOOD INTENTIONS, TABOR HAS BECOME PROBLEMATIC AS A RESULT OF THE RECENT RECESSION. LOOKING AHEAD, THE 2004 LEGISLATIVE PERIOD WILL BE IMPORTANT AS POLICYMAKERS DELIBERATE POTENTIAL FIXES TO THE CURRENT LAWS. REVENUE AND SPENDING LIMITS CREATED BY TABOR ARE MUCH TOO RESTRICTIVE, AND SHOULD BE LINKED TO ECONOMIC GROWTH.

The following web sites provide more information on TABOR, tax reform, and the state budget:

- The Bell Policy Center: <http://www.thebell.org/index.html>
- The Colorado Center on Law and Policy: <http:// www.cclponline.org/>
- Colorado Legislative Council: <http:// www.state.co.us/gov_dir/leg_dir/lcs.htm>
- ColoradoBudget.com: <http://www.coloradobudget.com/>

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High Tech, Low Luck? Has Outsourcing Ended the Way of High-Tech Prosperity?

INNOVATION BEGINS WITH EDUCATION, AND REFORM IS NECESSARY IF WE WANT TO MAINTAIN OUR INNOVATIVE EDGE. OTHER AREAS OF THE WORLD ARE FAR MORE DEMANDING ON THEIR STUDENTS, AND THIS IS A LARGE PART OF THE REASON THE GAP BETWEEN THE UNITED STATES AND THE REST OF THE WORLD IS CLOSING.

Brendan Hickey

Remember the high-tech boom of the 90s? Remember the record profits, the skyrocketing stocks, and the widespread prosperity? If you don't remember the boom, you certainly remember the bust. You don't need to be reminded of the plummeting stocks, the bankrupt companies, and the thousands of jobs lost. Now it appears as if we have turned the corner on recovery, but the question remains: Will high tech regain the prosperity of the last decade? Many people say no and cite outsourcing as the culprit. The recent offshore outsourcing phenomenon first in the manufacturing industry and now in the high-tech industries has been the source of much debate. Opponents say that outsourcing is killing American business, and is responsible for the jobless recovery we are experiencing. On the other hand, proponents argue that outsourcing is not only a smart business decision, but that it is indeed necessary for their very survival. The Colorado Business Economic Outlook Forum session "High Tech, Low Luck? Has Outsourcing Ended the Way of High-Tech Prosperity?" attacked the issue. Moderator John Cody, Longmont Area Economic Development, and panelists Gil Saenz, IBM; Les Wyatt, PeopleSoft; and Tom Tierney, Avaya, discussed the good, the bad, and the ugly of high-tech outsourcing.

Outsourcing: The Good

The panel began by defining outsourcing—the utilization of offshore resources to augment one's business. The panel went on to discuss the reasons companies outsource, and the ways in which outsourcing can benefit a business and ultimately the consumer.

The panelists were quick to point out that while cost reduction may be one reason companies outsource, it is not the only reason. Outsourcing is essentially a business expansion and growth policy. Outsourcing helps give companies a global presence. In today's competitive business environment, more companies are looking at international markets. Demand in the world economy is constantly shifting, and to adapt to this a corporation needs to build a large international infrastructure. In order to better serve these international markets it is important to operate locally. This allows a firm to be where its customers are and gain intimate knowledge of the local culture. One example that illustrates the increased flexibility in serving global customers is the idea of "follow-the-sun" call centers, something that is becoming increasingly popular. By having call centers around the world in different time zones, companies can offer 24-hour customer service without having employees at the call center 24 hours a day.

In addition to giving companies a global presence and leading the way to growth, the panel discussed several other advantages of outsourcing. First, outsourcing allows companies to have improved quality control. Wyatt explained that outsourcing has enabled PeopleSoft to test its products seven times more often than with only its domestic facilities. Outsourcing also benefits companies by giving them access to the top labor around the world. Centers of competencies and areas of expertise naturally arise in certain locations around the world. Outsourcing allows companies to take advantage of the local skills and knowledge base, and get the best employees possible. Outsourcing also benefits small businesses. Overseas high-tech service centers allow small companies to reap the benefits of technology in their business without a large IT department. Another aspect of outsourcing is pure economics. Saenz pointed out that IBM receives roughly 60% of its revenue from outside of the United States. This holds true for many corporations in the high-tech industry. If businesses are taking this much money out of these areas, they are obligated to reinvest some of that money back into the local economies. At the same time, the money that companies are saving with low-cost labor and other expenses at offshore facilities is money that can be reinvested back into the U.S. economy. Offshoring provides a competitive advantage. Companies can gain cost efficiencies and best-in-class capabilities, and the ensuing profits can be spent onshore on innovation and growth.

Ultimately, outsourcing adds value. It offers improved flexibility, increased quality of products and/or services, and better employees. At the same time, costs are reduced. It's ideal for the producer and the consumer—a better product at a lower price.

Outsourcing: The Bad—and the Ugly

The main criticism of offshore outsourcing is the loss of U.S. jobs. The panel argued that while jobs are definitely moving overseas, outsourcing ultimately benefits domestic workers. Panelists stated that the jobs being outsourced are typically repetitive, low-cost, low-value jobs, and that the money saved by moving these jobs to low labor cost areas allows companies to then hire the jobs with greater pay and value here in the United States.

Another criticism of offshore outsourcing is that it is eroding the creative and innovative advantages that the United States has long held. The panel's response to this claim was that rather than building walls around the country, we need to bring people who can be highly innovative together here. Innovation begins with education, and reform is necessary if we want to maintain our innovative edge. Currently, other areas of the world are far more demanding on their students, and this is a large part of the reason the gap between the United States and the rest of the world is closing. Furthermore, the panelists argued that the current regulatory environment in the Unites States is not conducive to innovation and creativity. The panel concluded that putting an end to outsourcing would do nothing to help the United States maintain this key competitive advantage; if anything it would only hurt the cause. Rather, regulatory reform and investment in education are the most viable solutions.

The future impact of offshore outsourcing remains unknown. Some people believe that outsourcing can be faulted for ending high-tech prosperity, while others believe that outsourcing will be credited with the revival of the high-tech industry. It is still up for debate what, if anything, can, or should, be done about the offshore outsourcing phenomenon. Whether you see it as a problem, or as a solution, one thing is certain: outsourcing is here to stay.

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Colorado Tourism: Where Do We Go From Here?

Cindy DiPersio

With the sound defeat of Amendment 33 in the November election, the state's tourism industry must continue to find a permanent, fixed funding base for promotion and marketing. The amendment would have allowed video lottery terminals in five racetracks in the state, with up to $25 million of the proceeds allocated annually for tourism promotion. This critical issue dominated the discussion at the "Tourism: Where Do We Go From Here?" forum breakout session. Moderator Eugene Dilbeck, Lambert-Dilbeck Marketing Resources, and panelists Al White, Colorado State Representative; Bob Lee, Office of Economic Development and International Trade; and Rob Perlman, Colorado Ski Country USA, reviewed the industry's latest statistics and visitor numbers and identified possible options the industry might examine to obtain funding.

Before the loss of state funding for tourism advertising, which occurred in a vote taken in November 1993, the state had a 2.7% share of the domestic U.S. visitor overnight market. Without promotion, Colorado rapidly lost its market share, falling to 1.8%. The state reinstated funding for a state-sponsored advertising campaign in 1997 and began rebuilding its market share. A 2003 study conducted by Longwoods showed the state's domestic U.S. visitor overnight market share has climbed to a level of 2.1%. Furthermore, every dollar invested in Colorado tourism promotion creates $12.74 in state and local taxes. Tourism received a one-time boost of $9 million in fiscal year 2003-04; however, a permanent funding source for the Colorado Tourism Office was not established.

Panelists emphasized the importance of a consistent level of funding to maximize marketing effectiveness. Continuity is critical for promotion and development purposes. Inadequate marketing at the state level is a primary competitive weakness that puts Colorado at a disadvantage compared with other states and hurts small tourism firms in the rural areas of the state the most. Funding options discussed at the session included another gaming measure, an industry self-imposed tax or assessment (market order), and Certified Capital Company Program (CAPCO) money. Panelists agreed that the industry, not the government, must take the lead in finding a solution to the problem.

Colorado's ski areas are an important segment of the state's tourism industry, accounting for 20% of U.S. skier visits. Skier visits in the state totaled 11.6 million in the 2002-03 season, a 4.3% gain over the previous season. Despite recent increases in the number of skiers on the slopes, the percentage of skiers from out of state has been declining, which translates into less revenue. In the 1996-97 ski season, two-thirds Colorado's skiers were from out of state. Last season that percentage dropped to 58%. This is one of many challenges facing the ski industry. Others include changing demographics and greater competition not only from ski areas in other states but also other tourism segments. Bookings from international visitors are strong this season, and domestic marketing efforts by Frontier will help bolster skier visits.

The question-and-answer period at the end of the session focused on how to achieve a source of competitive permanent funding for the Colorado Tourism Office.

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2004 COLORADO BUSINESS ECONOMIC OUTLOOK

CONTINUED FROM PAGE 2

Overall, the supersector will increase by 3.8%, or 8,100 jobs.

Leisure and Hospitality—A number of indicators point to a recovery in the Colorado tourism industry. For example, casino revenues, ski lift tickets, park visits, and DIA enplanements are projected to grow in 2004. From an employment perspective, this supersector is expected to add 8,200 jobs in 2004, an increase of 3.4%.

Other Services—This supersector is composed of private businesses such as auto repair shops, Laundromats, and personal services. Because they fulfill many basic needs, growth is often contingent on population growth more than the state of the economy. As a result, this supersector experienced gains during the recent economic downturn. This growth is expected to continue as 700 jobs will be added in 2003 and another 800 jobs this year.

Government—As the state's population has grown, so has the need for government services. After showing strong growth in 2002, the Government Supersector lost 4,300 jobs in 2003 as a result of budget cuts, layoffs, early retirements, and employees accepting jobs in the private sector. This decline will continue in 2004 as 1,700 jobs will be lost. The largest sector, Local Government, will incur the largest decrease in jobs.

International Trade —The United States seems to be driving the recovery with its pro-growth monetary and fiscal policies. Europe is expected to show modest growth in 2004, while economic growth remains weak in the Americas. SARS has taken a toll on Asian economic activity in 2003; however, there are many positive growth indicators from Japan. Because of projected uneven growth in the global economy and the instability of the U.S. dollar, Colorado exports are expected to enjoy a 4.5% increase in 2003 and a 5.0% increase in 2004. Canada, Japan, Western Europe, and Mexico will continue to be our top trading partners.

Around the State—Economists from around the state provided these snapshots of economic activity in their areas.

- **La Plata County**—Most sectors of the La Plata County economy expanded in 2003, and are expected to see further growth in 2004. Historically, La Plata's economy has been driven by tourism, which has declined since 1992. Proposed construction at Durango Mountain Resort should help create tourism-related activity in that area.
- **Mesa County**—Mesa County has felt the impact of the recent downturn less than other parts of the state because of its diverse economy. The recent upswing in economic indicators and growing interest in monitoring economic growth bode well for the county.
- **Northern Colorado**—Over $1 billion in new capital construction is expected for the region in 2004. This will lead to the creation of more than 3,000 jobs in 2004.
- **Pueblo County**—After tough years in 2002 and 2003, the Pueblo County economy is expected to grow in 2004. Increases are expected in construction, aviation, environmental projects, health-care and retail services, and correction facilities.
- **Southern Colorado (El Paso County)**—The average unemployment rate for El Paso County for 2003 is expected to be 6.1%. A modest improvement is expected in 2004 as the rate will drop to 5.8%. Nonagricultural employment is expected to remain flat in 2003 and grow by 1.7% in 2004. The loss of economic activity due to the deployment of troops from the region has slowed recovery.

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Population, Labor Force, and Personal Income Growth Forecast for 2004

Cindy DiPersio with Spencer Thompson

The panelists at the breakout session on population, labor force, and personal income at the business economic outlook forum discussed demographics and labor force and market issues. James Chivers with the Colorado Department of Labor and Employment moderated the session. Panelists included Richard Lin and Jim Westkott from the Colorado Division of Local Government, and Joe Winter with the Colorado Department of Labor and Employment.

Net Migration Spurs Population Growth

U.S. Census data show that the population of the state will increase by about 900,000 from 1994 to 2004. Over that period almost 62.0% of the state's population growth will be attributed to net migration, with the remainder attributed to natural increase. Net migration is expected to drop from 36,700 in 2002 to 16,500 in 2003 and increase slightly to 18,800 in 2004. As a result, Colorado's population is expected to grow by 59,400 persons in 2004, to 4.63 million. This rate of population increase will remain fairly constant, at 1.3%, which is still above the national average.

Labor Force to Rise

The rapid rate of population growth, in particular the net migration, caused the labor force to grow at a compound annual growth rate (CAGR) of 2.5% between 1994 and 2002. Reduced net migration will result in a labor force that will increase by only 1.4% in both 2003 and 2004.

For the first time since 1939, when the Bureau of Labor Statistics first began tracking employment data, Colorado employment showed negative job growth for two consecutive years, in 2002 and 2003. This was only the second time that the United States has shown negative job growth in back-to-back years during this period.

During the 1990s, the Colorado economy relied on telecommunications, manufacturing, construction, and tourism to drive growth. Increased employment in these areas fostered strong growth in retail sales, business services, and local government. In 2004 all supersectors of the state economy are expected to show improvement over 2003; however, strong growth will be seen in professional and business services, leisure and hospitality (tourism), health care, and retail trade. In 2004 Colorado will return to positive job growth, showing an increase of 32,300 jobs, or a 1.5% gain.

In 2002 the state's level of unemployment jumped above the natural rate of unemployment, 4.5% to 5.0%, for the first time since 1993. The unemployment rate increased to average 5.7%, where it is expected to remain for 2003. Despite an increase in employment of 32,000 jobs, Colorado unemployment will not drop significantly as labor force participation rates are likely to increase. Unemployment is expected to be 5.6% in 2004.

Personal Income Grows Below National Rate

The nation's rate of increase in 2003 total personal income will be approximately 3.3%, followed by 4.1% in 2004. Growth in 2003 total Colorado personal income will be 2.8% in 2003 and 4.0% in 2004.

Between 1994 and 2000, Colorado per capita personal income increased at a CAGR of 6.2%, compared to the national CAGR of 4.9%. Since then, per capita income in Colorado has grown at a rate well below the national rate. After showing negative growth in 2002, Colorado per capita income is expected to increase 1.3% in 2003 and 2.7% in 2004. This growth will continue to be lower than the national rates of growth, which will be 2.2% in 2003 and 3.0% in 2004.

This decrease at the state level illustrates the importance of jobs in finance, manufacturing, utilities, communications, wholesale trade, and technology, and the fact that the recent downturn affected a greater number of white-collar workers. It also highlights the importance of dividend income and capital gains, which disappeared with the downturn of the equity markets in 2001. These results further emphasize the differences between the national and state economies.

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Planes, Trains, and Automobiles: The Future of Transportation in Colorado

Julie Arnett

As Colorado's population continues to grow, congestion in the metro area, not only among commuters, but the movement of freight and cargo, will be an increasing problem affecting economic development in the area.

The outlook forum discussion session "Planes, Trains, and Automobiles" took an in-depth look at the issues facing transportation in Colorado now and in the future, and how they may be solved. The session was moderated by Bill Becker of Adams County Economic Development. Panelists included Cal Marsella, Regional Transportation District (RTD); Mike Paras, Union Pacific Railroad (UP); Greg Fulton, Colorado Motor Carriers Association; and Bob Loew, The Schuck Corporation.

Railway Expansion

An alternative to alleviate commuter congestion is the FasTracks plan being developed by RTD for inclusion on the November 2004 ballot. Cal Marsella, general manager of RTD, has led the effort to add 119 miles of rail, both light rail and commuter rail, and to contribute to the construction of 18 miles of bus rapid transit and 57 rapid transit stations, and the development of Union Station into an intermodal facility. As part of this comprehensive $4.7 billion plan scheduled to be completed in 2016, RTD will seek approval from voters in the seven-county metro area to increase the regional sales and use tax by 0.4%. Marsella stated that opposition to the idea of FasTracks has been minimal, primarily focusing on the project not being completed soon enough.

Mike Paras, UP superintendent of transportation services, reported that UP is working with RTD to expand the railroads in Colorado, and focusing on making the movement of its freight in the state more efficient. Currently, energy is the largest business unit hauled by UP, making up 57% of all freight. Coal accounts for most of this percentage. Almost 90% of the coal originates from the six Colorado mines, and is transported through Denver, contributing to congestion in the metro area. With the demand for coal rising, UP is investigating the potential of moving rail lines east of the downtown area, cutting down on transport time for the trains and congestion.

Trucking and TransPort

On a daily basis, the trucking industry records about 252,000 tons of inbound cargo, while 204,200 tons are transported out of the state. According to Greg Fulton, president of the Colorado Motor Carriers Association, the presence of more distribution centers and manufacturing facilities in the state could offset this difference. Although profit margins remain low in the trucking industry, they are growing along with tonnage and truck sales. E-commerce has also greatly impacted the trucking industry, helping to increase tonnage. On the downside, the shortage of drivers and technicians continues, while rising gas prices and insurance premiums are a concern.

Companies are looking for ways to improve efficiency, including reducing the amount of time spent transporting and handling products. To accomplish this, manufacturing and commercial development must be located near transportation to get products to their destinations the quickest way possible. Enter TransPort, a 6,300-acre intermodal industrial park being developed by the Schuck Corporation. Bob Loew, executive vice president of TransPort, asserts that the park will play a critical role in bringing together the many different sectors of the Colorado transportation industry. TransPort is strategically located at Front Range Airport, seven miles east of DIA on I-70 and the UP line, making it one of the only facilities in the country to have on-site access to air, highway, and rail. The development will include offices; corporate headquarters; research and development, technology, education, and manufacturing facilities; cargo activities; and warehousing and distribution facilities for companies serving local, national, and global markets.

While many different opinions regarding transportation issues were represented in this discussion, panel members all agreed on the need to work together in order to achieve the goals of the individual transportation sectors and the goals of the entire industry. With the estimated population of the Denver metro area forecasted to grow to 3.39 million people by the year 2025, improving and developing Colorado's transportation infrastructure now will be imperative to the growth and sustainability of the state's economy in the future.

For more information on topics discussed in this break-out session, visit the following panel members' web sites: <www.rtd-denver.com>, <www.transportcolorado.com>, <www.up.com>, and <www.cmca.com>.

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WITH THE ESTIMATED POPULATION OF THE DENVER METRO AREA FORECASTED TO GROW TO 3.39 MILLION PEOPLE BY THE YEAR 2025, IMPROVING AND DEVELOPING COLORADO'S TRANSPORTATION INFRASTRUCTURE NOW WILL BE IMPERATIVE TO THE GROWTH AND SUSTAINABILITY OF THE STATE'S ECONOMY IN THE FUTURE.

very much in a transition and a work in progress, not a destination that has arrived.

Telecommunications itself is dynamic—it is constantly changing, and quite frankly, a little stability would be a welcome relief these days.

Throughout my telecom experience, I have been intrigued by an industry that seems to get so wrapped up in its own hype, often to the exclusion of fundamental business principles. That is one of the problems that occurred at the end of the last decade and beginning of this one. It seems that everyone is looking for the silver bullet, that single product, like voice over Internet protocol (VoIP); that single access methodology, like DSL, fixed wireless, or WiFi; that single answer that is going to solve the problems of a company or industry.

But it just doesn't work that way. The bottom line is there is no silver bullet. Beware of all of the hype. I'm convinced that when there is an abnormal amount of hype, there is trouble. There is no easy way to success in this industry. Period.

Successful companies are those that are incorporating good business practices, like selling services or products with margin; using technology to drive efficiencies and create solutions for customer's problems; and focusing on the customer experience.

Telecom is essential—we can't live without it. It is a catalyst for economic growth. However, unless we harness its real potential to connect people and places easily, then it won't reach its full potential.

Telecommunications is about networks and it's about connections. It touches each of us multiple times every day. We live in a very connected world. Telecom has played an instrumental role in breaking down the barriers of both distance and time. It's as easy to make a phone call around the world as it is to make one across the street. Advances in technologies have reduced the pricing for services to a point where it's almost as cheap to dial London or Paris as it is to dial across the country.

The telecommunications network is so tightly intertwined with the way we do business that those who are not connected actually lose business. Who can imagine doing business in today's day and age without a telephone and a computer? I'll bet that virtually all of you sitting here have a cell phone in your pocket or in your car. And I'll bet that at least half of you sitting in the audience either have a Blackberry or Palm device to do your e-mail. The business world today is moving so fast it demands that you be connected and available, and the telecom network assures that you are.

Telecommunications is many things to many people. I think about telecom as being:

- **Voice and data.**
- **It's wire line,** the service that comes into your house or your office. There are millions of lines of voice service in the U.S. today. It's also where the bulk of today's spending goes.
- **It's wireless,** which is one of the few areas of significant growth in our industry lately, with a fairly large number of suppliers competing for the consumer and business dollar. It will be interesting to watch the consolidation here. I believe it is inevitable. But it's also interesting to see how far and how fast this industry has evolved. Remember, not 20 years ago cell phone service was limited to doctors, lawyers, and heads of state! The phone was the size of a brick and cost nearly $2,000. Now, not only is the phone free—at least my kids think they are—but even kids in high school and middle school carry them around in their pocket.
- **It's also cable.** This is another area now considered to be telecom. It used to be that cable was limited to carrying TV signals. My how things have changed! Cable now is not only TV—and high definition at that—but it's also broadband or high-speed data communications and even telephony. The cable companies are creating compelling bundles and packages of offerings that not only entertain us, but connect us to the world.
- **And, when you think about broadband**—or high-speed data—you have to agree this is one of the most impactful technologies to hit consumers in many years. Broadband networks, whether cable, DSL, fiber, or wireless, enable a tremendous number of applications and fundamentally change the habits of consumers as they interact on the Net. Broadband service has forever changed entire industries, like music. Look at the stir Napster caused. And we've also found that people with high-speed connections shop more online and actually spend more online.

Colorado, and Denver in particular, was once considered the hub of telecom and cable. And that was in the not too distant past. As recently as a couple of years ago, there were more telecom and cable companies headquartered or with a significant presence here in Colorado than in any other state in the country.

On the positive side, many of those companies are still around and doing business, though some admittedly with a smaller physical presence, and there are some new names as well. Think about cable companies like Adelphia and Time Warner Cable. Think about companies like Lucent, Avaya, Qwest, MCI, and, of course, Time Warner Telecom.

Colorado has had a great climate for telecom innovation.

Industry Turmoil

On the negative side, we've also seen more than our share of telecom companies fall by the wayside. You can name them. It's been an unfortunate result of the hype and excitement many have seen in the promise of new technologies. That entrepreneurial spirit that drives many of our businesses resulted in numerous companies having to file bankruptcy—Chapter 11—or close their doors all together, Chapter 7.

The telecom industry has had too many businesses built on false premises and assumptions that have had to go by the wayside. We've also seen businesses built on deception and arbitrage. Unfortunately, we continue to have arbitrage opportunities within telecom because of the way telecom is regulated. Though I could spend the rest of my time here today addressing regulatory issues, suffice to say that regulatory uncertainty, in general, is one of the biggest obstacles to growth in telecom.

Entire companies have and will continue to build their entire businesses around a certain aspect of regulation and then POW! It changes, and in some cases, drives companies out of business or hurts their progress. We have personally experienced this with intercarrier compensation issues.

The industry is currently going through this in a very big way with VoIP regulation. Many companies are currently arbitraging and taking advantage of regulatory uncertainty to the detriment of other companies.

The bottom line is we just need to know what the rules are, and then we can all play by them.

But in the end you cannot build and run a business on an arbitrage opportunity regardless of the temporary regulatory loopholes. Sure, in the short term it looks appealing, but in the long run it's not sustainable. A real telecom business takes time to develop and must be managed for the long run, and, in reality, it is not glamorous. It is a very hard thing to do. I know, because we have been doing it. It's about embracing, practicing, and executing on sound business fundamentals.

The telecom industry has gone through unprecedented change over the past three years. From boom to bust in a heartbeat! Here's a few statistics on the worldwide telecom marketplace (these come from Legg Mason earlier this year):

- **Financial collapse**
  - $2 trillion in market value has been lost.
  - Since January of 2000 through the end of 2002 we saw dozens of companies file bankruptcy—many in my sector (called the CLEC sector—competitive local

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exchange carrier)—XO, McLeod, Allegiance, ABIZ, ICG…many of whom will inevitably go through it again.

- **On the job front**
  - We saw 35,000 jobs go away in 2000.
  - We saw another 318,000 jobs eliminated in 2001.
  - And we saw yet another 340,000 evaporate in 2002.
  - In Colorado, according to the new *Denver Business Journal Book of Lists*, there were 18 telecommunications companies headquartered here in 2000. Today, there are 9. Now interestingly enough, those 9 are doing 6.3% more revenue ($26.2 billion) than the 19 did ($24.6 billion); however, they are doing it with 24% fewer employees (16,500 vs. 22,500).

I personally believe we will continue to see turmoil in this industry and much of it really has to do with flaws in the bankruptcy process and the vicious cycle it has created.

Chapter 11 bankruptcy protection has provided some companies with a potential new lease on life. However, we're finding that instead of redefining their companies, many of these companies are continuing with the same irrational behavior and/or poor operating plans that drove them into bankruptcy in the first place. We are seeing irrational pricing to get revenue, any revenue in the door, irrational hiring practices, a willingness to pay almost any price for talent, and irrational business decisions. This obviously affects the competitive environment. We're really seeing this occur quite dramatically in the long-haul telecom market, where many companies build fiber across the country and where hyper-competition is dramatic.

We at TWTC are a little more fortunate because we built fiber networks where others weren't, and we focused on solving the "last-mile" problem and built the fiber locally into business buildings to displace local phone companies like Qwest. And due to the difficulty associated with this kind of construction and the large capital investment, we have not seen many companies successfully do the same.

Nonetheless, we still have our share of irrational competitors still in or recently out of Chapter 11. But one of our key differentiators, which most of them don't have, is our own local fiber networks. You have to differentiate yourself to win in this environment.

Telecom is going through a second renaissance, but this time it is grounded in economics and real-world applications. Companies that will be successful are those really adding value versus arbitrage, commoditization, or reselling other's services. The real survivors will have to execute on sound business fundamentals—the keys to success in any business.

But interestingly enough, we're still seeing investors, especially venture firms, willing to invest in these fundamentally flawed companies because they have grossly underestimated the complexity of the issues in these companies and of telecom, nor do they understand the true viability of their business plans. As long as investors continue to rehabilitate these bankrupt assets with flawed business plans and systemic operating issues with new funding, we will continue to see the vicious cycle of hyper-competition and bankruptcies.

I'm not saying that there aren't some bankrupt companies worth saving, but assets alone do not make a successful telecom company. Good assets, combined with the right strategy, products, management, talents, focus, financing, discipline and, oh, a fundamentally sound business plan…that's a successful formula, and maybe they have a fighting chance.

We've probably all heard the jokes about companies going Chapter 22 or 18, which is two Chapter 11s or an 11 followed by a 7. It's really a bad joke, and unfortunately, a reality that will come to fruition for many of those companies.

The bottom line is that many companies just are not worth saving, and need to die. Sometimes the weak ones have to die for the herd to get stronger.

Encouraging Signs

Let me now focus on some really encouraging signs that are out there. Although we've been through a bit of a nuclear winter, I think that there are some promising signs of spring.

As I said earlier, Denver still has a number of companies focused on telecom operating here. There are network service companies like Time Warner Telecom, Level 3, and Qwest. All are significant employers in the state. Time Warner Telecom employs close to 1,000 people in Denver. There are equipment companies like Lucent and Avaya still operating large facilities in Colorado. There are service companies like TeleTech, Intrado, and Raindance operating here. There are equipment companies innovating new solutions for telecom like Voyant, which is a company that makes next-generation conferencing equipment.

Another sign of spring is in the customer environment. I'm going to talk a little bit about some things that are almost naturally occurring right now, that are spurring, or will spur, growth in telecom. First, according to analysts that track these things, there is projected to be an uptick in IT spending of about 5 to 8% in 2004. It makes sense. And we are seeing this ourselves. We're coming out of several years of incredible constrained capital spending. Many upgrades to the equipment we use to run our businesses were last upgraded to get ready for the "Y2K" potential problem (1999).

But remember, that was three or four years ago when all of those upgrades were done, and we all know that this equipment has finite life. Dell, HP, and others count on it! I think the practice is called "planned obsolescence"! Equipment like PCs and routers and LAN infrastructure are starting to require significant upgrades to meet the growing applications environment, or they are in fact reaching the end of their life.

There are other influences driving customers demand for telecommunication services. Businesses are facing increasing regulation that compels them to change their operating procedures and implement fundamental change in their operating networks.

Think about the impact Sarbanes-Oxley has had on businesses. I seem to remember that Congress said something about how Sarbanes-Oxley was not supposed to add significant financial burden on business…that couldn't be further from the truth. Many companies say these regulations have added millions of new costs to their business. Most public companies have had to implement new processes and systems to better manage the auditing of their publicly disclosed information. These additional requirements have added software and network upgrade requirements, and thus more bandwidth.

This is great news for software providers, equipment providers, and for us service providers.

And speaking of new federal requirements,

CONTINUED ON PAGE 10

CONTINUED FROM PAGE 9

think about the impact that HIPAA has had on the health-care community. They've had to add layers of network and security in addition to developing radical processes to better manage patient information. This has been a Herculean task. We at TWTC have a particular strength in the vertical market of healthcare, and I can tell you that when you combine the new HIPPA requirements with their need to have access to radiological images across town, or their need to connect doctors from their remote offices to hospitals or data centers, they have a large and growing need for telecommunications services.

Businesses are also turning their attention to business continuity or disaster recovery implementations. They are putting into place plans that provide for ongoing operations in the event of a disaster. And they're leveraging new technologies and telecommunications services as part of these plans. By looking at the various people, processes, and systems that need to be available in the event of a disaster, businesses can plan to maintain critical functions to keep the business operational. Telecommunications services and technology can play a key role in these plans and have evolved to support applications like off-site data storage. Voice service can also be redirected/rerouted to a number of sites so that the business can continue to serve its customers.

Since we have local fiber networks in 44 markets across the country, we have confronted many of these disasters real time, like 9/11, the East Coast blackout, the Memphis tornado, the California fires, ice storms, lightning strikes… you name it.

A secure telecom infrastructure is key to making sure businesses and emergency services can operate during these disasters.

On top of all of this is the homeland security and financial security requirements. All of these things drive telecom use. And you can't talk about growth in telecom without talking about how the Internet drives telecom, like broadband, for example, which is a solution for that demand. But what is it that drives the Internet? It's content and applications. All of these things, and many more, will continue to drive the need for more bandwidth.

All of this is very good news for companies with sound business plans. When companies undergo a change in their equipment, or a contract for service runs out, customers will take that time to evaluate their options and try to get more bang for the buck. This gives us an opportunity to compete for the business with better services that deliver more bandwidth and capabilities all at a lower price. (Equipment providers can sell more equipment.)

New Technologies

We've had several years to continue to focus on delivering a better set of technologies that deliver improved service at a lower total operating cost. While customers have streamlined their networks and cut back on operating expenses, they still have a growing need for more data bandwidth.

Think about it. Have any of you sent less e-mail than you did a couple of years ago? My guess would be that not only are you sending more, but you're also attaching bigger files and presentations that require more bandwidth. Do you spend less time on the Internet, doing whatever you do on the Net? Whether it's reading the *Wall Street Journal*, researching information for your latest project, or checking prices on the items your kids have on their Christmas lists, my guess would be that you are actually spending more time on the Web and doing more with pictures and graphics. The result is the need for more bandwidth.

Over the past couple of years, companies like Time Warner Telecom have been actively upgrading their networks, working with vendors to deliver advanced data networking solutions and creating operating efficiencies that will help customers build out more robust networks.

If you're familiar with Moore's law, it seems to apply directly to the telecom industry. Gordon Moore was a founder of Intel, and he developed a hypothesis that basically states that the computing power available in chipsets roughly doubles every 12 to 18 months. So not only do you get a doubling effect of capacity, but it gets cheaper through manufacturing scale. So it is with telecom. With some of the advances in optical technologies and the deployment of fiber optic systems, we're in a better position today to bring a customer a network that delivers more bandwidth at a lower price than what the customer is paying for today.

Technology advances are enabling new services and applications everyday. Some of these advances are incredibly disruptive. In other words, they fundamentally change the processes companies use to run their businesses and they change the way companies deliver services.

The promise of new technologies can have a dramatic impact on our business and the way our customers do business. Many of the things that a business had to plan to do on its own are now becoming network-based offerings so that the business is freed up to focus on its customers and what it does best. There are three key areas that our industry is focusing on that can truly change the way customers are doing business today. Metro Ethernet, VoIP, and wireless are technologies with incredible impact to help business change their processes and the way they run their businesses.

Metro Ethernet: Delivering More Bandwidth for Less Money

Metro Ethernet is a good example of where we as a service provider can deliver more bandwidth for less money than a customer might be spending on an older data network like frame relay or asynchronous transfer mode (ATM). Ethernet connections in the local area network are pervasive. They've been around for over 20 years. Ethernet is a technology that is highly scalable—all the way to 10 gig. It's also a technology that people are familiar with. Virtually every large business has deployed Ethernet networks in their buildings or campuses, and most small and medium-size businesses deploy Ethernet when they put a network in place. Given how available it is, Ethernet networks are the foundation for new services and converged networks.

When you wanted to connect remote offices in the past, you had to have a dedicated private line connection, or you used equipment—routers—to convert your Ethernet local area network to frame relay or ATM. Any of those networks—private line, frame relay, or ATM—requires a forklift upgrade process when you needed more bandwidth. Sometimes you had to change the network when you wanted to upgrade. For example, if you wanted more than 45 megabits of network bandwidth, your frame relay network had to be changed to either private line or ATM.

Metro Ethernet changes all that. Metro Ethernet is scalable from 10 megabits to 1 gigabit. It plugs right into the network you already have at the office! You most likely already have available Ethernet ports sitting on your routers. And it can carry several types of traffic.

Metro Ethernet is quickly becoming the preferred way to connect to the Internet. So, when you build a metro Ethernet network for your data connectivity between sites, you simply add Internet connectivity right over the same network. And you'll be able to add more services over that converged network over time. VoIP is one such service. The result is that you can build out a faster, more robust data network that carries multiple services and will save your business money.

Voice-Over Internet Protocol: A Tremendous Value Proposition

Now, VoIP. I'm sure you've all been reading about it in the paper. Now don't forget what I said about hype. We think it's a great product, but it is one of a portfolio of products that together will make us successful—not just this one.

VoIP brings many benefits to the business customer and has a tremendous value proposition. Lots of people think about VoIP as an experimental technology that has terrible quality of service. They think that in order to do VoIP you have to be a techno-geek to program the network, the computer, and the phone. Nothing could be further from the truth. In fact, I know this is not true, because even I can do it!

Implementation of the technology is a key trend we're seeing in the business, and for good reason. You don't need to be a programmer to use a phone. VoIP phones look much like any other type of phone on a desk in a business. But VoIP gives a business compelling value. With VoIP you only have to have one cable to the desktop. VoIP has the same quality of service—or better—than what you get with a traditional network and you use it the same way.

VoIP can save a customer significant money in the operating cost of the phone system. Today, when you move people around in the office, it requires significant planning and often at least one or two calls to your phone provider. With VoIP, when the user moves their things down the hall, they pick up their phone and plug it in at the new office—and it works! No coordination with your phone company or private branch exchange (PBX) vendor required! That can be down the hall, across town, or across the country. Customers typically spend $100 to $200 every time they move their phones in the office. With VoIP those costs are virtually eliminated.

Let me give you an example of how powerful this technology can be. If you run a call center, VoIP is enabling your call center agents to work from anywhere in the world. We're seeing examples of implementations like what Jet Blue has done. They have a call center for reservations, and they've done it without having to build a building or collocate people in the same town. Jet Blue has implemented a virtual call-center solution that uses VoIP and allows people to work out of their homes. The call agents are supervised by managers in their offices. The central computer system is in New York. Supervisors can monitor calls, record calls, and do all the things they would normally do if they were collocated in the office. But the employees are distributed and working mostly out of their homes. The system is efficient. The employees like the flexibility. They'd rather work out of their homes than in a "sweatshop" environment. And it saves money because Jet Blue doesn't have to build buildings.

VoIP is also hitting the residence. There are a few start-up companies doing VoIP these days and delivering consumers a compelling offer. For as little as $25 to $30 per month, you can have phone service, with features like conference calling, caller ID, and voice mail, delivered over your broadband connection at home. For a few dollars more, you can get unlimited nationwide long distance. You can pick your phone number from a wide variety of cities around the country. Imagine having a New York City telephone number that

IMPLEMENTATION OF THE TECHNOLOGY IS A KEY TREND WE'RE SEEING IN THE BUSINESS, AND FOR GOOD REASON. YOU DON'T NEED TO BE A PROGRAMMER TO USE A PHONE.

rings on your desk here in Denver. The package is easy to install, and you get everything on one bill.

Now, take all of that and think about how VoIP can facilitate a disaster recovery or business continuity program for your business. Unfortunately, disasters can and do happen. With a bit of planning and leveraging the technology, VoIP can help keep your business up and running even though the office may be closed.

To highlight the power of VoIP for a disaster recovery application, let me tell you a story. Time Warner Telecom has offices downtown Manhattan. We also have offices across the river in New Jersey. Our sales office in Manhattan implemented a VoIP PBX in late 2000. We put it in to serve our business needs, but also to better understand how VoIP PBXs get implemented and used in a business environment.

When the terrorists attacked lower Manhattan on 9/11, our office was directly impacted. Not that our building was hit, but it was part of the area that was sectioned off and our employees could not go in or out. The folks that were in the office at the time picked up several of the VoIP phones, packed them up, and brought them to our New Jersey office and plugged them in there. We were immediately back in business. The phones worked, calls were routed automatically, and we were able to run our business.

You're going to see a lot about VoIP in the coming months. You'll see service providers like us, the regional bell's interexchange carriers (IXCs), and cable companies developing and launching services.

All this adds up to giving the consumer choice in their services. Competition can make everyone better if they choose to respond to it.

Wireless Networks and Services: At Home and at Work

Finally, wireless networks and services are some things you'll want to keep your eye on.

When you think about wireless data networks, you probably think about WiFi hotspots in places like Starbucks. But they're spreading into places like McDonald's. Consumers are installing them in droves into their homes. Now that people have two and three computers in their home, they're installing WiFi networks to share files and resources like printers and high-speed Internet access. You can even connect the kid's Playstation or X-Box to the wireless network so they can play games against kids across the country or around the world. It's easy to install and set up a wireless network in your home.

With companies like Intel and Cisco putting so much resource behind WiFi, it can't help but become widely adopted. If you don't have WiFi capabilities in the computer you're using now, it's highly likely that you will in your next one. Intel believes that by 2005—just a year or so away—90% of PCs shipped will have wireless capabilities.

WiFi is also making its way into the business. Customers are even using wireless networks for VoIP applications. While wireless networks tend to be focused on deployment within the building, we're going to see advances that make it possible to go from building to building, which is the area we are interested in. WiMax is an evolving standard that delivers high-speed data networking—potentially more than 200 megabits per second—through the air. Imagine the possibilities.

As I said, we're seeing signs of spring out of this nuclear winter telecom has faced over the past few years.

New Possibilities: The Promise of Radical Change

When I think about the impact and possibilities that these new technologies deliver, along with the current customer environment, I get incredibly excited about the telecom industry. It still is one of the very few industries that can deliver on the promise of radical change. It helps create efficiencies for business. Its services can help businesses grow. It can help our nation's economy grow. Though it has been incredibly tough, and I have the battle scars to prove it, it's absolutely the most exciting industry to be a part of.

I believe the future is bright. Telecommunications is the lifeblood of our economy. It is not a destination, but a transition that continually improves the ability to connect people and places better than ever. There are those who watch what happens, those who wonder what happens, and those who make things happen. We in telecom are making things happen.

Thank you, and I wish you and your family the very best this holiday season has to offer.

Editor's Note: *These remarks reflect the personal views of Ms. Herda and not necessarily those of Time Warner Telecom Inc. and should not be relied upon for the purpose of making investment decisions.*

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IN THIS ISSUE: HIGHLIGHTS FROM THE 2004 COLORADO BUSINESS ECONOMIC OUTLOOK FORUM

The articles in this issue of the *Colorado Business Review* present highlights of the 39th annual Colorado Business Economic Outlook Forum, including the full text of the keynote address and sector-specific forecasts for 2004.

The forum, hosted by the Leeds School of Business at the University of Colorado at Boulder, was held on December 15, 2003, at the Marriott City Center Hotel in downtown Denver. More than 700 business and government professionals attended the one-day event, which began with a fast-moving forecast of the state's economic sectors, followed by a Q&A session featuring some of the state's top economists. Larissa Herda, President, Chairman, and Chief Executive Officer of Time Warner Telecom, discussed the future of the telecom industry in the keynote address. The program concluded with a series of industry break-out sessions on the following topics:

- Tourism: Where Do We Go From Here?
- Population, Labor Force, and Personal Income in 2004
- High Tech, Low Luck? Has Outsourcing Ended the Way of High-Tech Prosperity?
- Tax Reform in Colorado
- Planes, Trains, and Automobiles

For further details, visit <http://leeds.colorado.edu/brd/beof.cfm>.