

**THE LOS ALAMOS ECONOMY:**

**A Vision for Sustainable Prosperity**

*A report by Los Alamos Commerce & Development Corporation*

**February 16, 2003**





## Acknowledgements

For their assistance and participation, LACDC would like to specifically thank:

### LACDC Board of Directors

Jeff Miller, President	Jeannette Wallace	Hugo Hinojosa
Denise Smith, Vice Pres.	Gordon Spingler	Greg Partamian
David Megalli, Sec.	Chris Dissinger	Martha Waters
Bill Enloe, Treas.	Carolyn Mangeng	John Davies
Bill Wadt		

### Downtown Steering Committee

Jeff Miller	Jim Anderson	Betty Romero
Denise Smith	Laura Crotzer	Johnny Martinez
Erich Evered	Blaine Asay	Fran Berting
Bill Enloe	Roger Waterman	Morrie Pongratz
Fred Brueggeman	Kelly Carpenter	Nona Bowman

### Los Alamos Chamber of Commerce Leadership Council

Martha Waters, Chair	Georgina Buschman	JJ Maier
David Megalli, Chair-elect	Ina Acomb	
Marilyn Warren, Sec.	Jill Cook	
Hugo Hinojosa, Treas.	Erich Evered	

### Los Alamos County Council and Staff, Fred Brueggeman

### Vision 2020 Los Alamos

Special thanks to Morrie Pongratz for the analysis comparing LANL operating cost to taxable gross receipts and for his continuing economic data collection, analysis, and sharing

## **CONTENTS**

Introduction

Chapter One: Los Alamos' Economy: Observations & Overview

Chapter Two: Maintaining A Strong Economy

Chapter Three: Preserving Quality of Life and Enhancing Quality of Place

Chapter Four: Investing in Essential Infrastructure

Chapter Five: Regional Engagement for Mutual Benefit

Conclusion

References

## INTRODUCTION

Technological innovation is changing the way Americans live, work and carry out business. The resulting "new economy," also identified as the information, digital or knowledge economy, is characterized by highly skilled workers, network relationships, and rapid communications. The economy of today is based more on information sharing and service providing than it has ever been. Just 20 percent of the U.S. workforce now makes tangible products, as opposed to the 80 percent responsible for generating, moving and processing information and providing services.

In many ways, Los Alamos is well positioned to benefit from this dynamic new economy, where success is founded on ideas, information and innovation. Our history is rooted in successful technological development on a grand scale. The Los Alamos "brand" is instantly recognizable to scientists and technologists world-wide. The residents of our area include a very high concentration of highly educated and skilled scientists and technology workers. The interdisciplinary nature of the work at LANL means that we have talent on hand in a broad variety of scientific disciplines working on a broad set of interests. LANL is a world-class R&D institution that has the potential to garner the attention of "new economy" business and industry leaders worldwide. Many aspects of the quality of life we enjoy here also provide us with strengths to build on.

However, we do face significant challenges to taking advantage of the strengths that we possess. Areas we need to address include engaging UC, LANL, and political leadership on behalf of diversifying LANL research funding sources and proactive pursuit of technology commercialization for local and regional benefit, improving "quality of place" to enable success in future recruitment efforts of all employers, improving business infrastructure, and engaging with regional interests in areas of mutual need and benefit. Successfully addressing the challenges will require a concerted effort by both our public and private sectors.

This report was created to suggest ways to sustain and build upon Los Alamos' economic strengths. Throughout 2002, extensive research and analysis was conducted upon which to build this report, including many meetings and forums of business and community leaders and participation in Los Alamos County's Comprehensive Plan visioning and focus group processes. This research led to the emergence of four overarching goals for our community's economic future. First, the community must work to enhance its economic position through broadening the base of funding for our base economic activities. Second, the community must retain its excellent quality of life while improving our quality of place. Third, we must seek to understand the implications of infrastructure limitations and needs. Last, we must be more effective at engaging regional action on issues of collective importance. Each of these areas is reviewed and a series of recommendations for action are presented in this report.

Los Alamos is making progress in setting the stage for an environment in which businesses can flourish and individuals and families can thrive. Broad citizen involvement has produced a plan for a revitalized downtown that will enhance quality of place, and has also produced a statement of the vision for the future of the community as a whole. A collaboration of the school system and the Housing Partnership is producing new housing with an “affordable” component. The Wideband Community Network initiative has developed ideas for how to meet future needs for broadband telecommunication in the community. A first building at Los Alamos Research Park is completed and houses several technology development businesses that seek to grow in the community.

The future can bring improved financial success and enhanced quality of life to Los Alamos residents. Ensuring sustained prosperity, however, will take considerable planning and cooperation between the community's public and private sectors. It will also require a commitment to investing in well-considered incentives, community infrastructure, and mutually important regional initiatives. By taking a holistic approach to planning, Los Alamos will ensure a prosperous future; one in which all its residents are afforded the opportunity to succeed.

## **Chapter One: Los Alamos' Economy: Observations & Overview**

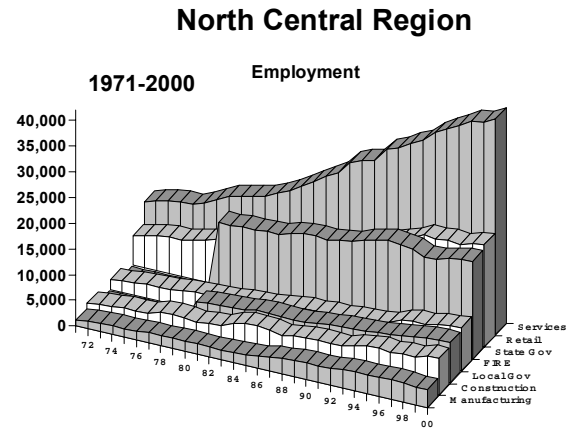
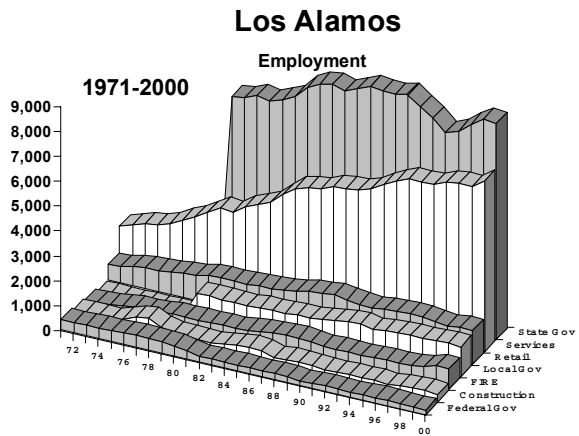
A practical plan for the future begins with an understanding of the past and a solid appraisal of the present. There are a number of important observations with regard to Los Alamos economy:

- The Lab is nearly all of our local economy (in percentage of \$ terms) and nearly 40% of the regional economy
- Economic development means bringing more \$ into the community from other places – this is called “primary economic activity”; LANL brings \$ from elsewhere thus is primary economic activity
- Diversity of sources of funding coming into the community means that we don't have all our eggs in one basket; this can be accomplished by importing or generating new private sector “primary” businesses or by diversifying the sources of funding for existing primary economic activities (i.e. the Lab); the narrower LANL's mission (thus base of funding sources), the more eggs we have in one basket
- Our workforce is regional – nearly half of Los Alamos' workforce lives elsewhere in the region
- Recruitment/retention of qualified workforce is a key issue for LANL & the community.
- Creating jobs that earn less than the average income reduces the average income (reducing average standard of living); in the big picture, creation of jobs in tourism, retail, and lower paying service businesses should generally be done for quality of life and tax base reasons – not for economic development
- Demand for commercial space in Los Alamos exceeds supply; occupancy rates for commercial space remain high; lack of developable land for commercial uses sustains this market imbalance; lease rates reflect this supply/demand imbalance
- Taxable services, retail, and construction are the primary means of generating revenues for County government (through Gross Receipts taxes); a relatively small amount of economic activity and property in the County contributes to the tax base
- The retail market is regional, although there are considerable unmet needs in Los Alamos; retail expenditure “leakage” (nearly 60%) is much more severe than need be; the key issue is lack of developable space
- Retail activity “reacts” to primary economic activity; it recirculates \$ brought here by primary economic activities and adds to quality of life for residents
- The key problem for local retailers is not “high lease rates” as some people have guessed; neither is it having office space located downtown (offices help by generating shopper traffic); the problem is sales per lease rate – key factors are level of shopper traffic, merchandise offering,

breadth of shopping opportunity, customer service/value perception, and space supply/demand imbalance previously described

- Two key LACDC initiatives are the Research Park and the Downtown Plan. The RP is aimed at diversification of funding feeding our economy (both private sector & LANL) and the Downtown Plan is aimed at addressing the imbalance in supply/demand of space for commercial uses & housing by changing the rules governing use and development there. Both of these will enhance what the community has to offer when seeking to recruit/retain workforce.

Review of several key factors relevant to understanding our economy provides a frame of reference for the suggestions that will follow:

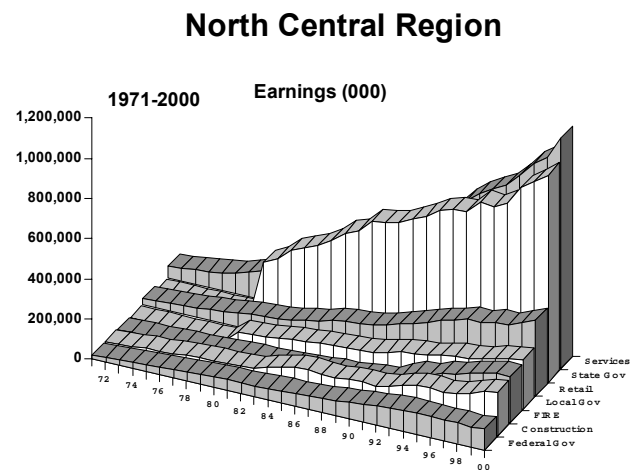
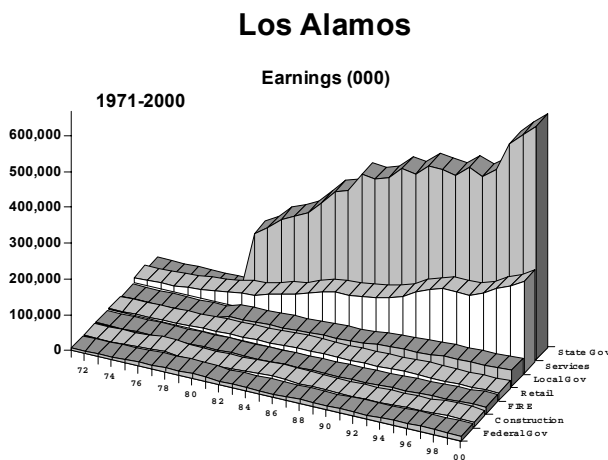


Notes:

“State Gov” = state government employees – UC employees fall under this classification

“NF-Prop” = Non-farm sole proprietors

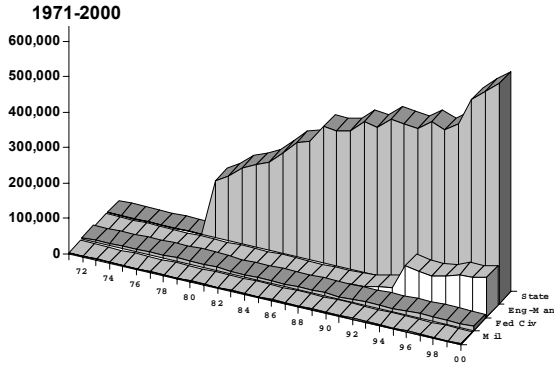
“FIRE” = Finance, Insurance, Real Estate



Primary industries are those that import money to the local economy. This imported money circulates and flows from person to person, business to business, until it is fully consumed and leaves our local economy. The success of most service and retail business and a vast majority of the jobs in a local area are dependent upon this flow. Primary earnings come from these industries. Nationally, the most important primary industry in a majority of the local economies is manufacturing.

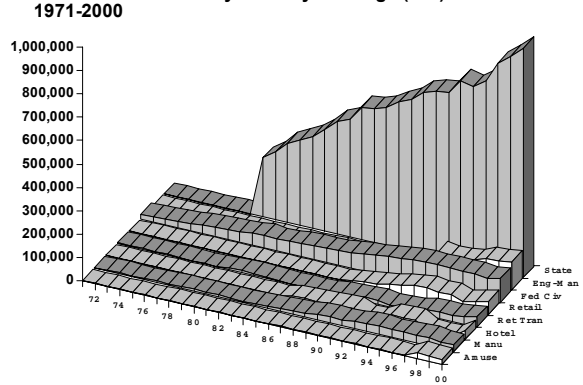
### Los Alamos

Primary Industry Earnings (000)



### North Central Region

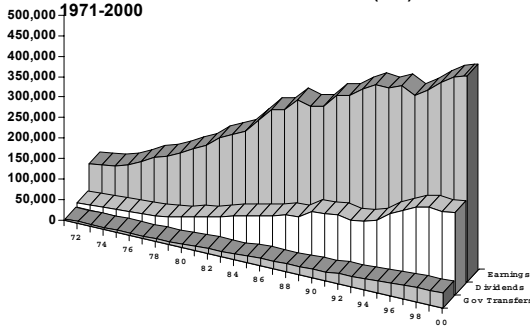
Primary Industry Earnings (000)



### Sources of income

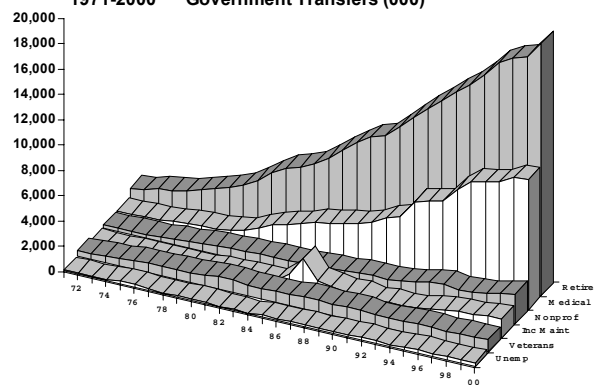
### Los Alamos

Total Personal Income (000)



### Los Alamos

Government Transfers (000)



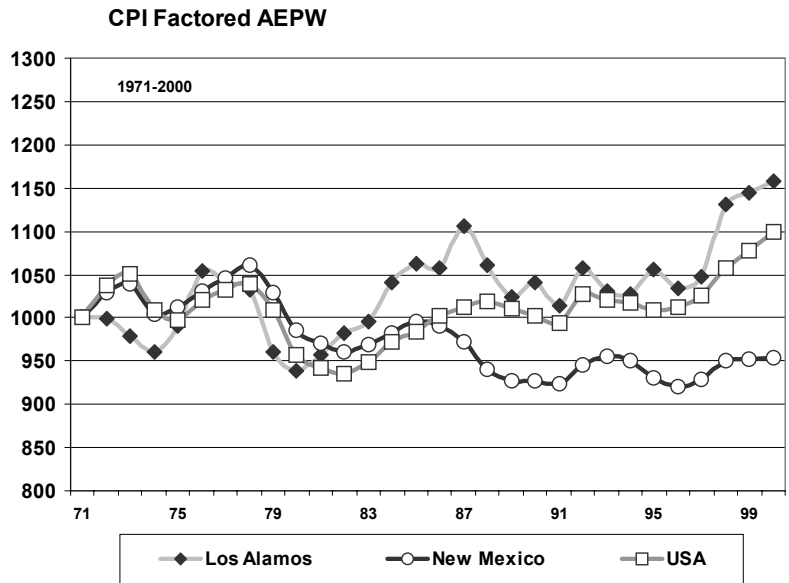
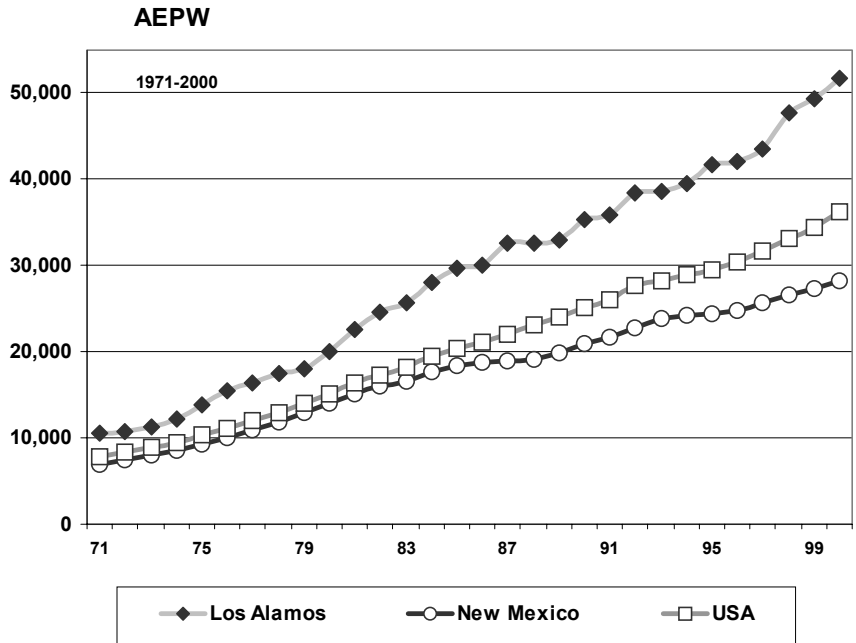
**Notes:**

*Earned income is the amount of money garnered by an individual through active work during the course of the year. It includes personal wages, salaries, and profits by proprietors.*

*Div = Passive income includes money earned from investments, rentals, bank interest, and private retirement plans.*

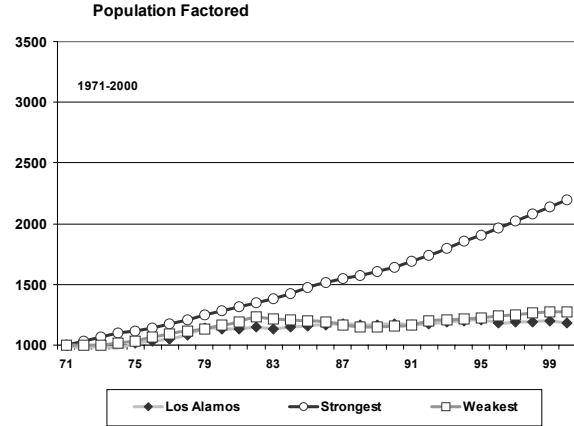
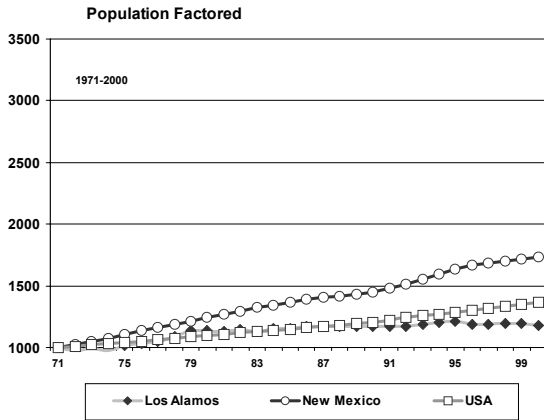
*Trans = payments to individuals residing in the area from the various federal, state, and local government "entitlement" programs.*

The following analysis examines the level of the economy as it pertains to growth in “quality and quantity” relating to the people living and working in the area. Los Alamos County is statistically compared to New Mexico, the nation, and/or the ten strongest and weakest metropolitan area economies in the country. (AEPW = Annual Earnings per Worker)

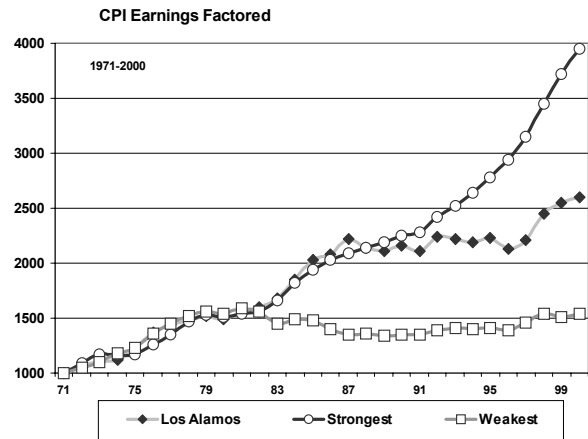
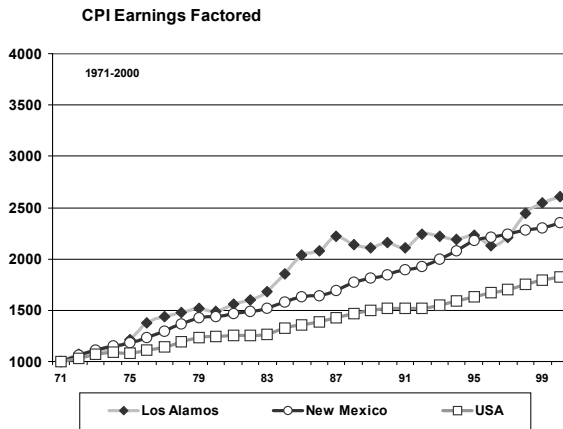


It is a characteristic of strong economies to grow in population, but not all areas that have grown significantly in population have strong economies. However, it is a characteristic of the weakest economies to have extremely slow population

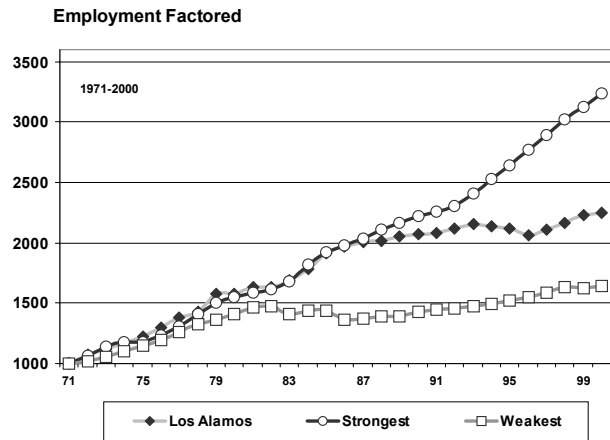
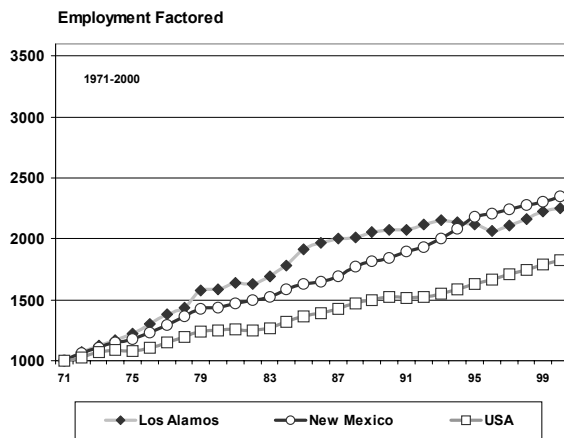
growth or actual population decline. Growth in population however is a natural occurrence in strong economies. As a result of quality employment opportunities, fewer young people leave the area to seek a career, choosing to remain “at home” to start their families. Additionally, there is immigration of others to the strong areas, typically from weak economies, because of the economic opportunities.



One of the best ways to measure the growth in the quantity of the economy is to examine the total Earnings in the area. “Earnings” is the volume of money being moved throughout the economy via the various industries through wages and the earnings of small business proprietors. The relative growth of Earnings demonstrates the increase in the quantity of the economy. Note how the strongest economies have had a smooth consistent growth in the quantity of their Earnings while the weakest areas have basically had no relative growth for the last fifteen years.

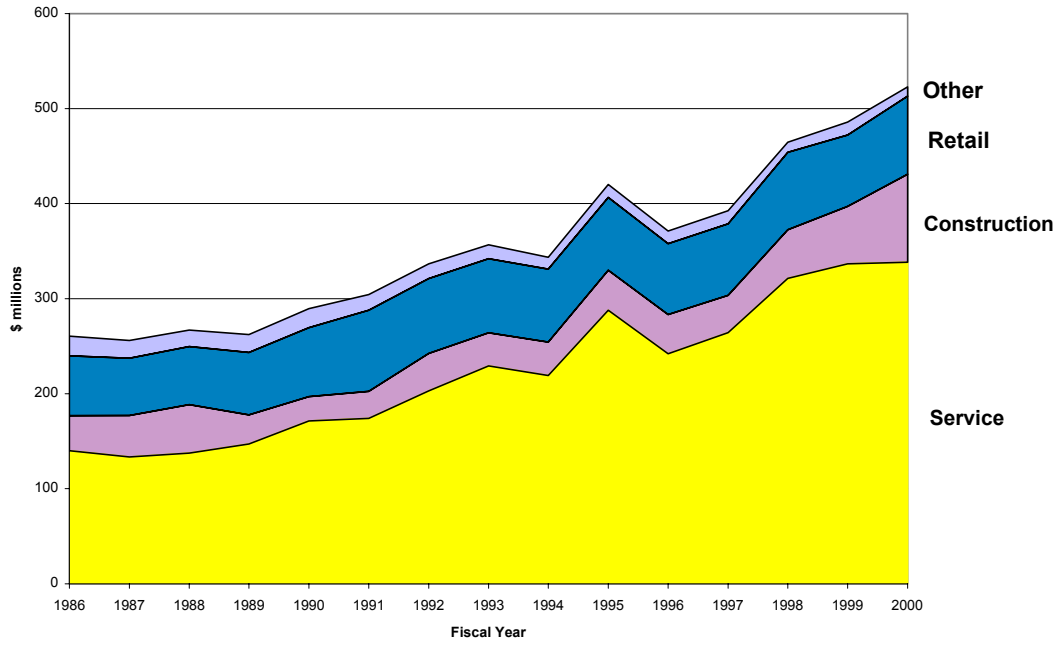


A second, corresponding way to measure the growth in the quantity of the economy is to examine the total Employment in the area. Employment is the number of people moving the money throughout the economy via the various industries. As with Earnings, the growth of Employment demonstrates the increase in the quantity of the economy. Note how the strongest economies have had a smooth consistent growth in the quantity of their employment. The weakest areas have had some increase in the number of jobs over the last fifteen years, but the increase is extremely low.

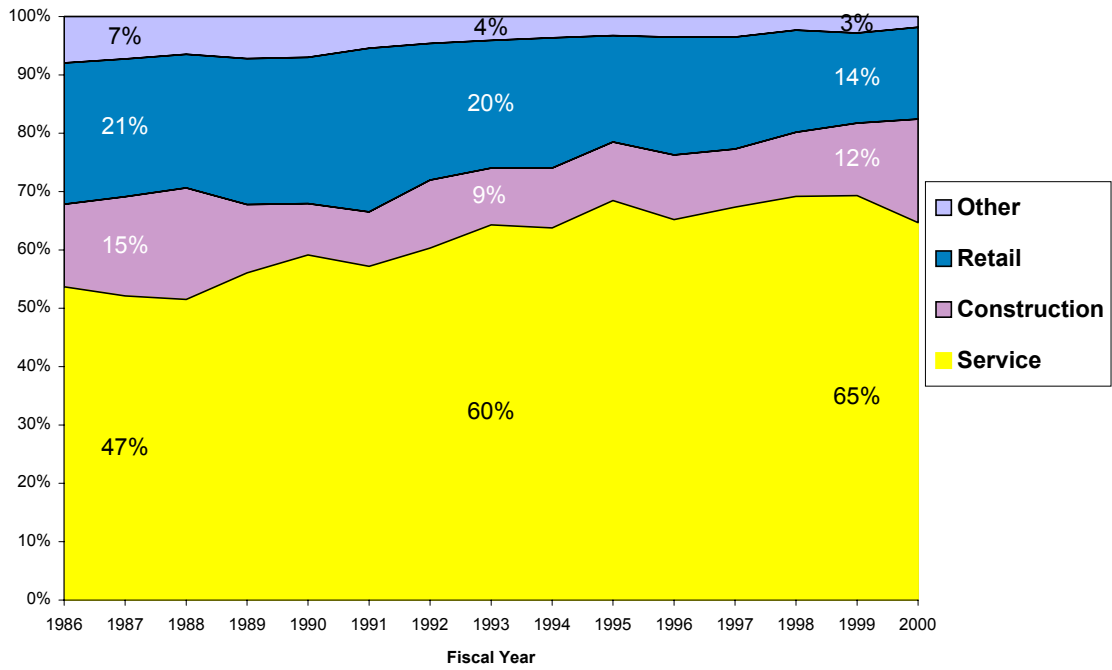


Gross receipts taxes provide one of the major sources of funding for the State and County governments. It is not a direct measure of economic activity however because many activities in the Los Alamos environment are not subject to taxes. Ironically, primary economic activity is much less likely to generate gross receipts taxes because it is often exempt. LANL does not pay any taxes on any of its gross receipts because of the University of California's tax-exempt status. Likewise, sales of goods to LANL are not subject to gross receipts taxes because of the University of California's tax-exempt status. Receipts for services performed by contractors for LANL are subject to gross receipts tax and comprise the most significant source of GR tax paid in the County. Local market businesses selling goods and services to others do generate gross receipts taxes, but the existence of the demand that supports these businesses is attributable to primary economic activity. The following charts show trends in the growth of taxable gross receipts.

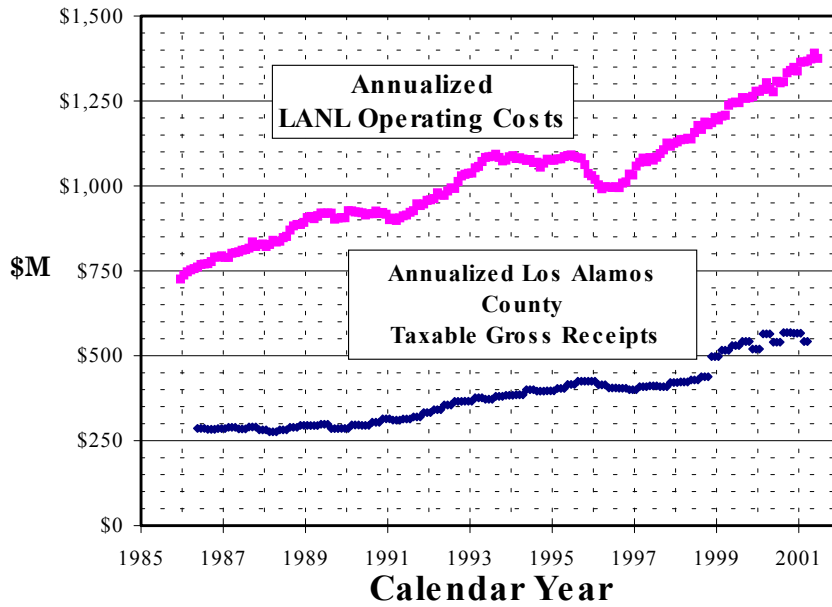
Los Alamos County Gross Receipts Subject to GR Tax



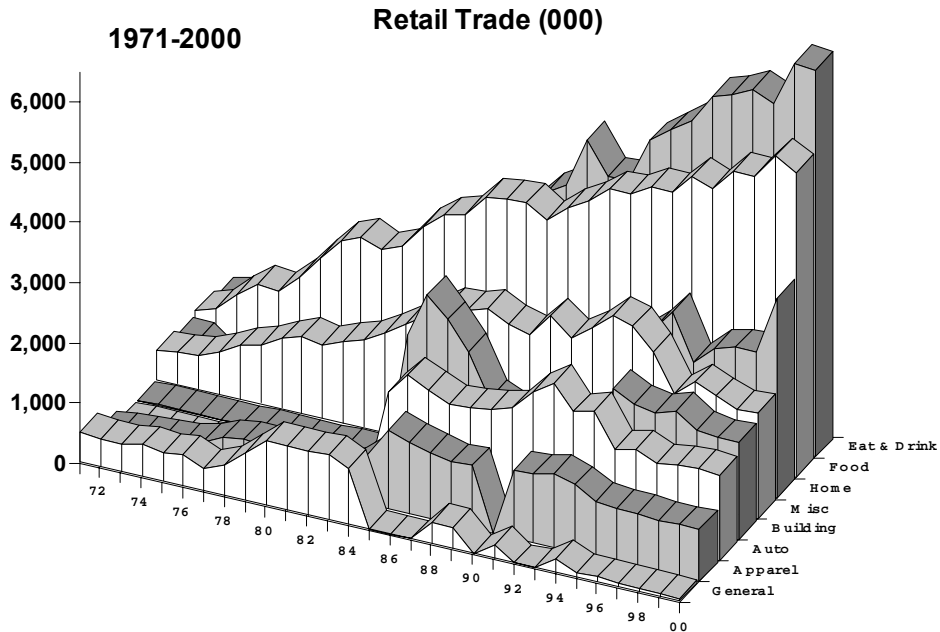
Los Alamos County Taxable Gross Receipts Percent by Major Category



### LANL Operating Costs and Los Alamos County GRT Base



### Los Alamos



Strengths, weaknesses, opportunities, and threats (SWOT) as seen by community leaders and stakeholders provide another useful perspective for understanding our situation:

<u><b>Strengths</b></u>	<u><b>Weaknesses</b></u>
<ul style="list-style-type: none"> <li>• Perceived attractiveness of quality of life</li> <li>• Setting (natural, historic)</li> <li>• Outdoor recreation setting</li> <li>• Size of community</li> <li>• Effective, high performing school system</li> <li>• Accessibility of leadership</li> <li>• Strong “brand” identification</li> <li>• Effective “hook” to bring people / ideas to Los Alamos (physical &amp; software)</li> <li>• Financial strength of Lab and County</li> <li>• Locally owned financial institution</li> <li>• Research Park formed and in place; land available</li> <li>• Highly skilled, educated workforce</li> <li>• LACDC in place &amp; producing results</li> </ul>	<ul style="list-style-type: none"> <li>• Size of community</li> <li>• Lack of acceptance into the broader NM community</li> <li>• Cultivation of future workforce (not a youth-friendly community)</li> <li>• Retail leakage – imploding; businesses folding or going off the hill</li> <li>• Unattractive commercial area; perceived low “shopping/dining quality of life”</li> <li>• Availability/quality/value of commercial space</li> <li>• Availability/quality/value of housing</li> <li>• Lack of sufficient retail infrastructure</li> <li>• Credibility of local government decision processes</li> <li>• Community education/knowledge on economic issues</li> <li>• Lack of integration with region</li> <li>• Apartheid: Lab vs. commercial</li> <li>• Geographical location (remote)</li> <li>• Shortage of workers</li> <li>• High cost of business</li> <li>• Aging infrastructure (schools, utilities) – reliability issues</li> <li>• Weak engagement by major community player (LANL/DOE) in the community</li> <li>• Short term lease terms for LANL space (need long term commitments through GSA)</li> </ul>

<u><b>Opportunities</b></u>	<u><b>Threats</b></u>
<ul style="list-style-type: none"> <li>• LANL hiring and growth</li> <li>• LA Institute (life for LANL researchers &amp; scientists outside the Lab)</li> <li>• Downtown Redevelopment <ul style="list-style-type: none"> <li>○ Successfully implement the details and spirit of MainStreet plan</li> <li>○ LANL Downtown (MainStreet)</li> <li>○ Movie theater</li> <li>○ Youth attractions (keep \$\$ here)</li> </ul> </li> <li>• Higher Education Center</li> <li>• Converting federal assets to commercial activity</li> <li>• High-end tourism (Valles Caldera; “Gateway City”)</li> <li>• Regional cohesion opportunities / synergies (infrastructure)</li> <li>• Workforce development/availability <ul style="list-style-type: none"> <li>○ Regional transportation</li> </ul> </li> <li>• Effective engagement of LANL leadership (no more “hole in the donut”) <ul style="list-style-type: none"> <li>○ Dealing with LANL parking, circulation problems</li> <li>○ Increased tech transfer/collaboration with locally-based companies &amp; organizations</li> <li>○ Research Park (expansion)</li> <li>○ Downtown Plan engagement</li> <li>○ Engage and educate LANL / DOE management re: what is good for the community</li> <li>○ Affect LANL policy toward the community (purchasing within Los Alamos)</li> </ul> </li> <li>• Wide band telecommunications that pays for itself in the long-run</li> <li>• Land transfer (from DOE)</li> <li>• Political Action: local, state, federal</li> <li>• Address employee recruitment / retention issue</li> <li>• Use of County Self Sufficiency Fund for economic development</li> <li>• Improve housing stock</li> </ul>	<ul style="list-style-type: none"> <li>• LANL/DOE <ul style="list-style-type: none"> <li>○ Instability of DOE policy</li> <li>○ Lack of involvement of UC</li> <li>○ LANL decision making that disregards community impact</li> <li>○ LANL internalizing because they have \$\$\$ and security issues</li> <li>○ Lab budget cycles</li> <li>○ Commercialization of technology (inability of Lab management)</li> <li>○ Lab security measures (closed community)</li> </ul> </li> <li>• Regional <ul style="list-style-type: none"> <li>○ Isolation within the larger NM community</li> <li>○ State legislature actions</li> <li>○ Keeping up with competing communities; attracting business</li> </ul> </li> <li>• Perceptual <ul style="list-style-type: none"> <li>○ Entitlement mentality re: federal government</li> <li>○ Terrorist threat could make LA look unattractive</li> <li>○ Fear of change / satisfaction with status quo</li> </ul> </li> <li>• Economic climate</li> <li>• Lack of workforce</li> <li>• Political climate</li> <li>• Congressional actions restricting tech transfer</li> <li>• School \$\$\$</li> <li>• Failure to engage political action at local, state, federal levels</li> <li>• Downtown property owners cooperation with plan</li> <li>• Lack of economic diversification</li> <li>• Another fire</li> <li>• Failing businesses</li> <li>• Aging population / young people relocating</li> </ul>

## **Chapter Two**

### **Maintaining a Strong Economy**

Two issues to consider when evaluating the strength of an economy are the *volume* of the flow of dollars into the community from other places and the *diversity of funding sources* contributing to the volume. Key opportunities for the Los Alamos community to increase volume include increasing the flow of funding into the Laboratory, increasing the number of businesses that sell their products/services to customers outside of the community, and developing high-end tourism business. Expanding the breadth of the community's economic funding base without slowing or degrading the progress of our economic core will strengthen our economy. To the extent that increased funding for Laboratory activities comes from streams other than weapons and other traditional core programs, LANL funding can contribute to diversification of the economy. *Diversification is a function of the source of the funding, not the recipient business or organization.*

As a community, we benefit from the dollars flowing into the community through those dollars being converted into spending power and/or wealth for individuals, by their being deployed by government or community agencies to improve our collective quality of life and quality of place, or by their being invested in improving our capacity to sustain ourselves in the future. Money flows to individuals through employment, to state and local government through taxes, to community agencies through contributions of resources, and to local market businesses through purchases of goods and services. From an economic developer's standpoint, the number of jobs created is not so important (we have no unemployment to speak of) but rather the quality of the jobs that are created and retained. An indicator of the quality of jobs is their level of compensation relative to the existing average – jobs that compensate at lower than average levels pull down the average. *To the extent that we promote creation of jobs at lower than average pay levels we, on average, decrease the economic standard of living.*

### **High Tech, Research, and Development**

Historically, technological growth and innovation have been the key drivers of the Los Alamos economy. This is due to the Research and Development (R&D) funded at LANL as well as, to a much smaller extent, in the private sector. R&D is essential to sustaining technological innovation, and has accounted for up to half of U.S. economic growth during the past five decades, according to the U.S. Office of Technology Policy. Further economic development from high tech, research, and development activities builds upon a key strength of the community and offers our best opportunity for continuing economic sustainability.

Approximately \$1.75 billion of federal R&D funds were spent in Los Alamos in Federal FY03. Sources include:

- National Nuclear Security Agency (NNSA) 71%
- U.S. Department of Energy (other than NNSA) 18%
- Work for Others 11%

“Work for Others” includes R&D dollars from business and industry funded research.

A large part of this funding is aimed at weapons and national security activities that provide some, although limited, applicability for technology transfer given secrecy and security issues. The balance is directed primarily toward "basic research," research that is critical to expanding knowledge and understanding fundamental science phenomena and other activities that are the genesis of tech commercialization potential. If 20% of the dollars go to activities that can feed subsequent commercialization, that would represent \$350 million of research funding, comparable to all but the largest university research budgets.

Los Alamos strengths for generating high tech, research, and development activity make this a natural target area for business development. We already possess a robust R&D cluster to build upon and there is a small, growing set of technology businesses outside of the Lab. The increasing presence of these kinds of businesses improves the ability to recruit high quality staff for both LANL and the other tech businesses. To the extent that LANL is effective in connecting technology transfer and industrial collaboration efforts with any interest in regional business development, our prospects for economic development through retaining, recruiting, or developing technology and R&D business are much improved. Jobs created and retained in high tech, research, and development activities tend to be compensated at relatively high levels.

Los Alamos research is heavily weighted toward early stage activity that has not yet established a sufficient business case to enable attraction of venture capital. Key concerns for such early stage ventures are raising the capital to support maturing the technology and developing/attracting the business talent needed to carry the venture forward.

Los Alamos generates its share of entrepreneurial interest. The UNM-LA Small Business Development Center counseled 143 clients in 2002. These clients formed nearly \$2.5M in capital for expanding their business and twenty-seven of them started new businesses during the year. The UNM-LA SBDC delivered 21 business workshops to 144 attendees. LACDC's Small Business Center has generated more than thirty business start-ups that have grown out of its facility or were sold to larger concerns. Start-up technology businesses such as Amtech, CASA, and HYTEC have used these services to support their start-up, growth, and success. Each of these businesses has generated their own spin-off activities in the broader region, Albuquerque, and beyond. The Small Business Center and UNM-LA Small Business Development Centers, while capable resources, are very small in scale and as a result are limited in their reach. Key

issues facing entrepreneurial businesses include the availability of capital, business development support, and cost of doing business in Los Alamos.

It should not be forgotten that some of our best economic development opportunities might be through diversification of R&D activities *conducted by LANL*. For instance, as this paper is being written there is consideration being given to establishing a National Fuel Cell Research Center. Los Alamos is one location being considered for this center. Location of such an activity in Los Alamos would bring dollars to the community from a funding source (DOE Renewable Energy Programs) that, although still government money, is funded by a different funding stream than LANL's traditional core funding (NNSA Weapons Programs). The funding is not dependent on nor is it highly correlated with LANL's weapons program funding. The purpose of this center would be to work on industry collaborations to move the state of the art of fuel cell technology forward toward commercial applications. Beyond the dollars coming to the community funding LANL work in the Center, there would be the potential of attracting corporate collaborator presence in Los Alamos and fostering entrepreneurial spin-offs. To the extent LANL funding streams are diversified, it is positive for the sustainability of our local economy.

The Los Alamos Research Park provides a place for technology development and R&D activities to locate outside of LANL's property, but still in close proximity to LANL. The first building is complete and it houses 83,000 square feet of laboratories, computing facilities, meeting space, office space, and the Synergy Center (incubator/small office space). Construction activities at the building have generated more than \$1 million in Gross Receipts Tax and 80 construction jobs. The property is generating \$82,000 in local property and utility taxes annually. There are ten companies located in the first building so far and more than 105 people are employed there. The Los Alamos Research Park is master-planned to provide for up to five times the existing space at build out.

Technology, research, and development activities build upon each other, and create demand for business and personal services from a much broader range of local market businesses. These businesses need insurance, banking services, computing services, utility services, supplies, printing services, janitorial, maintenance services, catering for meetings, business lunches and dinners, hotel rooms for visitors, travel agents, ..... Their employees need homes, doctors, dentists, glasses, contacts, medicines, medical services, food, clothing, ski passes, sporting goods, dinners out, travel agents, fitness clubs, ice cream, pizza, entertainment, hair cuts, dry cleaning, appliances, gifts, flowers, books, music, veterinarians, video rentals, gasoline, auto services, auto parts, plumbers, electricians, remodelers, landscapers, bank accounts, financial services, insurance, ..... Using a conservative multiplier of .5 to estimate indirect and induced jobs supported by Research Park activities, the Park is already supporting more than 150 jobs.

## **“High End” Tourism**

Mass-market tourism is characterized by trying to provide an experience to as many tourists who will come as possible and by delivering the experience through economies of scale. Mass-market tourism typically requires a labor force willing to work for relatively low wages. “High-end” tourism is characterized by the idea of providing an experience that tourists gladly pay relatively more for. Because the experience costs more, there are fewer tourists who are likely to come. Because the tourists are spending more, the jobs that support delivery of the experience can be more highly compensated. High-end tourism offers potential for taking advantage of our local strengths while recognizing limitations and community concerns.

A tertiary benefit of high-end tourism would be to help support amenities that would also benefit technology business activity and the quality of place for all local residents. There are potentially valuable opportunities available ...

- “Science City” could be developed to emphasize extended stay, educational itineraries for visitors
- Resort quality lodging and amenities could take advantage of itineraries focused on mixing outdoor activities in the Los Alamos area with cultural and historic activities in the larger region

## **Controlling Business Costs**

New Mexico in general, and Los Alamos as well are perceived by business as having a relatively high cost of business. Contributing factors include:

- Scarce land results in high real estate costs
- High housing costs result in higher staff and recruitment costs
- Remote location results in lost time when traveling and higher travel costs to many destinations
- Complexity of tax rules result in perceived unfavorable/higher cost tax environment
- Lack of support goods and service availability locally result in higher cost of business

Efforts to address issues driving high cost of business or to otherwise mitigate the high cost of business in Los Alamos will contribute to the potential for economic development success.

## **Business Networking and Assistance**

Business leaders understand that efficient, accessible and responsive government is an economic asset. During focus groups held by LACDC, participants often noted the ease with which they could contact and speak directly with leaders in national, state, and local government as a strength to build upon. This strong communication contributes to responsive and responsible public policies that benefit the business environment.

Business networking, both formal and informal, has been identified as a leading source of competitive advantage in many high-tech areas. An effective system of business and trade groups enables firms to learn from each other, to collaborate on common problems and to interact with all levels of government. These organizations vary in location, membership and scope; examples of such activities are the Chamber of Commerce, Industry Forum @ Los Alamos Research Park, Coronado Ventures Forum, New Mexico Biotech/Biomedical Association, and New Mexico Info Tech and Software Association.

Los Alamos entrepreneurs tend to be “science savvy” but “business inexperienced.” Firms getting started in the community need space to start out. Financing is often difficult for start-up firms. A variety of assistance is vital for the development of entrepreneurial activity in Los Alamos. UNM-LA provides business education courses. The University of New Mexico Small Business Development Center (SBDC) provides no cost, confidential business counseling and low cost business training. LACDC provides full service, small spaces at the Small Business Center and the Synergy Center @ Los Alamos Research Park. The Los Alamos County Small Business Financing Program provides a creative financing alternative to high potential technology firms.

Government can support businesses by participating and sponsoring making available the resources and opportunities necessary for competing and prospering.

## **Recommendations**

- The community should focus on technology development, technology consulting and high-end tourism (scenic beauty) as strategies for economic development;
- Develop a long-term strategy for promoting LANL investment in and commitment to technology commercialization and industrial collaboration;
- Support and augment continued funding of the UNM-LA Small Business Development Center to assist small businesses of all types to help them expand their market opportunities, obtain capital and benefit from technology transfer;
- The County government and the Laboratory should promote the purchase of local goods and services to fulfill their needs;

- Support establishment of Los Alamos Institute as a place for funded research by LANL staff outside of the administration of LANL;
- Encourage the Laboratory to diversify its work and funding sources;
- The Los Alamos County government should continue to make funding available for business expansion activities under its Small Business Financing Program;
- Los Alamos County government and LACDC should collaborate to provide public education (community and region) regarding economic development.

## **Chapter 3**

### **PRESERVING QUALITY OF LIFE AND ENHANCING QUALITY OF PLACE**

Much of what contributes to quality of life is *quality of place*. A research project conducted for the Mellon Foundation, *Competing in the Age of Talent: Quality of Place and the New Economy*, contends that regions are economically successful today largely based on their ability to quickly mobilize skilled workers and needed resources. The report states, "the nexus of competitive advantage has thus shifted to those regions that can generate, retain and attract the best talent."

Natural, recreational, cultural and lifestyle amenities are vital in attracting skilled workers and supporting leading edge high-technology activities in the community. Because job opportunities for highly educated and skilled people are excellent in many parts of the country, workers are able to weigh economic and social opportunities in making decisions about where to live and work. Los Alamos is a community that combines a beautiful natural setting with social and cultural opportunities, an excellent public school system, and strong job prospects in emerging technology fields. However, housing selection and value, availability of basic goods to satisfy everyday needs and shopping interests, and selection of entertainment and dining opportunities leave much to be desired. In these regards, "quality of place" must be improved in order to expect to recruit and retain the best and brightest to sustain our community.

Downtown revitalization provides a key opportunity for improving quality of place that will complement quality of life in our community. Making improvement is more than just a nice thing to do; it is vital to the future sustainability of our community's economy. The downtown plan approved by Los Alamos County in April 2002 is aimed at improving the retail mix, housing availability and diversity, entertainment options, and the vibrancy of our community core.

#### **Managing Growth**

The community is determined that a successful balance must be maintained between growth and the protection of natural and cultural resources. The downtown plan addresses this concern by encouraging intensified use of land in the downtown as an alternative to sprawling development into undeveloped areas. As lands are transferred from the Department of Energy, the community will need to carefully consider their designation for future use in consideration of this balance.

#### **Recommendations**

- Encourage private investment in downtown revitalization through public participation in infrastructure (including public facilities and parking);

- Facilitate timely decision making by County government in matters of land use, infrastructure investment, and permitting;
- Support the continuing effort and role of the Downtown Steering Committee in pursuing implementation of the Downtown Plan;
- Engage LACDC, the Housing Partnership, and the Open Space committee in a joint effort to evaluate and recommend future compatible uses for DOE transfer lands.

## Chapter Four INVESTING IN ESSENTIAL INFRASTRUCTURE

Maintaining and improving Los Alamos' infrastructure is fundamental to our sustained economic prosperity. A solid infrastructure enables residents to go to and from work, allows businesses to operate, communicate, and move goods and services to markets throughout the world and supports the travel and tourism industry.

Essential infrastructure systems, including reliable electrical capacity, drinking water and waste disposal capacity, telecommunications, and transportation systems are often taken for granted - until they can't meet demand. Substantial planning and lead-time is needed to maintain an infrastructure that can accommodate growth while maintaining the community's quality of life and place.

- **Parking** – construction activities at LANL have created considerable parking issues that have disrupted the mobility of people during the working hours; realizing the goals of the downtown plan will require the County government to undertake development of parking as public infrastructure.
- **Electrical Capacity** – adequate capacity and reliability are critical to supporting existing and developing new economic activities.
- **Telecommunications & Internet Access** -- a strong communications infrastructure is crucial to our aspirations of increasing our high tech business base. A particular issue has been the reliability of our linkage to the outside world. Currently, there is only one path of physical connectivity for commercial traffic from Los Alamos to the national backbone.
- **Transportation/Transit** – transportation and transit systems need to support the mobility of the regional workforce needed to fill jobs in Los Alamos.
- **Airport** – to the extent that existing air service is perceived by business and economic interests as making Los Alamos a less remote location for business, the airport will be an asset to the economy of the community.
- **Water Supply, Source Water Protection, and Wastewater Management** -- Maintaining adequate water supply is crucial to sustaining growth into the future. Water supply infrastructure includes surface water and groundwater sources; distribution systems, including pipes and storage tanks; water treatment plants; and measures to protect watershed lands, including buffers, to ensure water quality.
- **Solid Waste Management** – Effective management of waste is important to sustaining economic capacity.
- **Air Quality** --Clean, healthy air contributes to the overall quality of life, and to the community's appeal as a place to live, work, and visit.

Significantly, Los Alamos' R&D capacity and technology know-how may be able to be linked to providing for infrastructure development. For instance, use of biomass fuel generation technology may be relevant to solid waste management, fuel cell technology may have implications for improving electrical power system reliability, and water & air purification technologies may be able to be applied to our air and water resources.

## **Recommendations**

- Goals should be established and pursued for improving electrical reliability to commercial properties;
- Review pedestrian, transit, street, and highway plans to promote the development of a seamless multi-modal transportation system that accommodates the needs of citizens, businesses and travelers;
- Seek a redundant path of telecom connectivity from Los Alamos to national network backbones;
- Implement WCN concepts and plans to the extent that revenues generated from the resulting system can pay for it;
- Evaluate the potential for applying Los Alamos technology strengths to infrastructure issues;

## **Chapter Five**

### **REGIONAL ENGAGEMENT FOR MUTUAL BENEFIT**

Los Alamos has long valued a local approach to decision making. Volunteer boards at public meetings consider municipal permitting and zoning questions and citizens who are directly impacted by the results of the decisions have a voice in what happens in their communities. Increasingly, the impacts of local projects spill across political boundaries, requiring regional communication and dialogue among all affected parties. One of the goals identified in this year's community visioning recognizes this concern, "We will reach out to neighboring communities, act cooperatively with them, and foster cross-cultural relationships."

To a great extent our community's economic success has been rooted in its highly skilled workforce. The rapid transformation of the United State's economic base from a traditional economy to a high-technology durable goods and professional services economy has increased the need for better-educated workers. While LANL has generally been successful in hiring high-tech workers from other states, recruitment efforts are becoming more difficult and costs are increasing as skilled labor markets tighten nationally. To the extent that LANL and other local firms are unable to fill their skilled labor requirements or are placed at a labor cost disadvantage relative to firms in other places, their ability to compete and sustain economic growth into the future will be limited.

The Los Alamos workforce is drawn from throughout the region. Los Alamos has been a long-term job generator for the Northern NM region. To sustain our regional economy, the regional community must seek to:

- Understand and respond to the current and future workforce needs of employers,
- Enable mobility of workers to be able to get to and from their jobs reliably,
- Address needs for childcare to ensure that workers can be confident that their children are well cared for while they work. One of the biggest challenges facing all working parents is obtaining safe and affordable childcare. Businesses feel the crunch in childcare availability when their employees miss work or are forced to leave their jobs because they cannot find care for their children. The availability, affordability, and quality of childcare clearly impact the long-term economic health of the region. Businesses have a double stake in the child care issue--both in terms of the pressures it places on their current workforce and also in terms of the implications poor quality child care now has for their future workforce,
- Provide a system of education that creates well-prepared citizens and a highly skilled workforce. In an economy based on technology and innovation, it is critical for the educational organizations to respond to workers' and employers' need for ongoing education and

job training opportunities. Maintaining a focus on lifelong learning is essential in an economy that demands high-skilled workers in rapidly changing industries,

- Address the difficulties of citizens in accessing healthcare. One might say that our economic health depends upon the health of our citizens. Los Alamos Laboratory benefits are excellent and provide for a high rate of their employees being insured. However, the high cost of insurance has made it prohibitive for many of Northern New Mexico's small employers to offer coverage to employees, or for individuals to purchase it individually. Additionally, projected increases in health insurance costs in the future will make it difficult for many employers to maintain their benefit programs,
- Address the needs for “affordable” housing. Entry-level LANL workers as well as workers in lower paying service and retail positions are having difficult times finding affordable housing. Rental rates and purchase prices for existing housing exceed national averages in the Santa Fe MSA and in Los Alamos. The quality of the housing stock is often questioned relative to the cost.

Given the differing needs of the communities in the region, a different economic approach must be taken in each. Regardless of conflicts of histories and interests, there are substantial areas of confluence of interest upon which to base improvements.

## **Recommendations**

- The efforts and resources of businesses, labor, government, educational institutions, Pueblos, and others should be aligned to:
  - Meet the current and future needs for educated, multi-skilled workers to support a competitive advantage for employers, and growth opportunities for workers and communities within Northern NM. Maximize the extent to which the existing (and future) labor force is ready and able to fulfill opportunities in the regional job market;
  - Create a sensible regional transportation approach;
  - Pursue strategies with federal, state, and local entities to increase availability of affordable housing;
  - Ensure that residents throughout the region are able to access quality health care and social services conveniently and efficiently;
  - Understand water resources as a regional issue and encourage engaging the citizens of the region to support sustainable levels of water use;
  - Improve the development of broadband telecommunication throughout the region to support educational and economic activity;
- Facilitate development of interregional cultural and athletic events and venues;

- Facilitate exchange of local news and discussion of issues between communities in the region;

## CONCLUSION

Los Alamos is a community that has an opportunity to proactively build a sound economic future for our community and region. Our alternative is to let the chips fall where they may and leave our children's and grandchildren's future to chance. To be successful, we must establish and build upon a collaborative approach to economic growth and development. Using the resources of government, businesses and communities, we must plan now to maintain our strong economic position, retain our excellent quality of life, improve our quality of place, and expand economic opportunity to residents.

The recommendations of this report can serve as a guide to government, business and community leaders as they work to expand economic opportunity, protect and improve our unique quality of life, and continue our economic success. The LACDC is a linchpin, connecting and assembling a community, business, government, and nonprofit leaders to work toward implementation of the recommendations.

## REFERENCES

Association of Chamber of Commerce Research Association (ACCRA) Cost of Living Survey, 2002.

Bureau of Economic Analysis, Regional Economic Information System, 1997 data

Corporation for Enterprise Development, 1999 Development Report Card for the States

“The Economy of Los Alamos and North Central New Mexico”, a study by Policom Corporation commissioned by LACDC in February, 2003.

Los Alamos County Comprehensive Plan (Draft), 2003.

NM State Department of Revenue Reports.

North Central New Mexico Economic Development District, Comprehensive Economic Development Strategies – 2002-2003

Rankings based on U.S. Bureau of Labor Statistics, 1999 annual average employment by industry estimates for the 50 states.

The State New Economy Index: Benchmarking Economic Transformation in the States, Progressive Policy Institute, July 1999.

State and Metropolitan Area Data Book: 1997-98, Fifth Edition, U.S. Bureau of the Census, Washington, D.C., 1998.

U.S. Census Bureau Data

U.S. Bureau of Labor Statistics Data

“Visitor Market Analysis: The Los Alamos New Mexico Market,” a study by the Los Alamos Meeting and Visitor Bureau, June 2000.

# LOS ALAMOS COMMERCE AND DEVELOPMENT CORPORATION

## **Mission**

The LACDC delivers:

- actionable information,
- customer service,
- initiative

to:

- business people,
- government,
- visitors,
- and local residents

in order to:

- help businesses start, grow, and succeed;
- promote a vibrant, sustainable, local economy; and
- promote the community of Los Alamos.

## **Key Business Units**

Chamber of Commerce  
Main Street Program  
Meeting & Visitor Bureau  
Research Park  
Small Business Center  
Small Business Development Center