



economic contributions

of The University of Colorado **Denver | Anschutz Medical Campus**



University of Colorado
Denver | Anschutz Medical Campus

FY 2010 | APRIL 2011

Prepared by the University of Colorado Denver Offices
of Administration and Finance and Sammons/Dutton LLC



Fueling Colorado's Growth

The University of Colorado Denver plays an un-paralleled role in the ongoing revitalization of Colorado's economy. Comprised of two campuses, the Denver Campus and the Anschutz Medical Campus, the institution's impact goes far beyond the economic impact. These two campuses, both with distinct missions, collaborate to:

- > prepare students to succeed in their careers and become lifelong learners
- > promote discovery and innovation with interdisciplinary research and cutting-edge technologies
- > engage communities and schools with public service, professional development, and advocacy initiatives
- > provide vital and state-of-the-art health care while developing new therapies, medical technologies, and preventative care strategies

The University of Colorado Denver supports the state by advancing the economy, culture, and overall health of Colorado.



University of Colorado
Denver | Anschutz Medical Campus

University Contributions

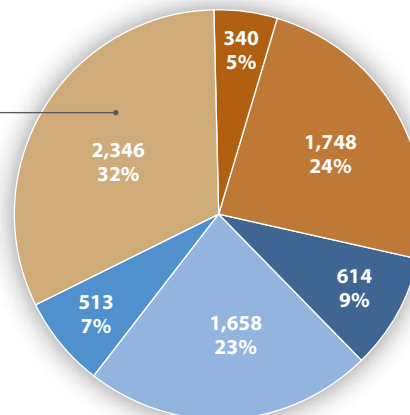
The contributions of the University of Colorado Denver are built on its comprehensive undergraduate, graduate and professional academic programs, a research enterprise providing cutting-edge discovery and innovation, and clinical health endeavors serving over 1,000,000 patients a year. Some highlights of University contributions include:

- > Offering 132 collaborative degree programs in 13 schools and colleges that prepare graduates to meet tomorrow’s challenges, with more post baccalaureate degrees awarded than any other public research institution of higher education in Colorado (see chart)
- > More than \$421 million in sponsored research awards, breaking ground in a number of areas, from advancing cancer treatments to creating more sustainable urban infrastructures and better public schools
- > More than 90 centers and institutes extending instruction and research to the community, ranging in issues from business development, education and public policy, and medical research and service across the state
- > Campus development of over \$1 billion and nearly 3 million square feet in the last 12 years that has helped attract the attention of emerging industries calling the region “next up on the Biotech landscape”¹
- > A comprehensive range of services to reach Colorado’s underserved populations such as a set of pipeline programs for first-generation college-bound students and rural health education services extending care to Colorado’s neediest communities



Post Baccalaureate Degrees Awarded by Colorado Public Research Institutions, FY 2010

- University of Colorado Denver
- Colorado School of Mines
- Colorado State University
- University of Northern Colorado
- University of Colorado Boulder
- University of Colorado Colorado Springs



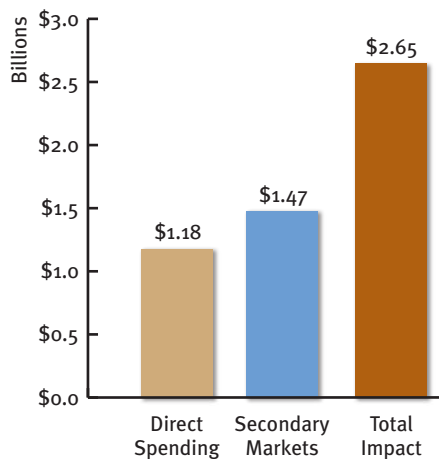
¹Genome Technology, Best Biotech Places & Emerging Clusters, June 2008.



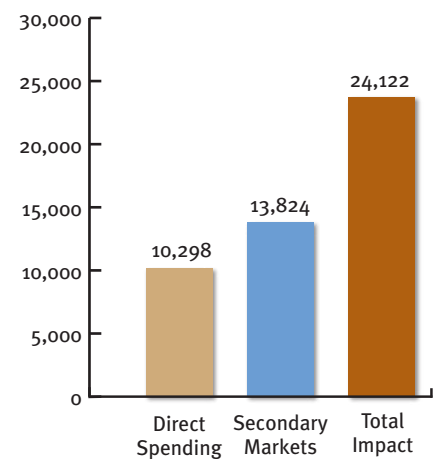
The university educates and inspires thousands to become innovators, teachers, health care providers, community leaders, and decision-makers. The university also supports the state economy through job creation and spending on goods and services. The direct spending circulates through the state economy creating thousands more in jobs, payroll, and economic activity. Construction projects, though one-time in nature, have a significant impact on job creation and spending activity. FY 2010 economic impact highlights include:

- > A contribution of \$2.65 billion to the state's economy from direct spending on payroll, goods and services, and indirect impacts in secondary markets; every \$1 spent by the university created another \$1.25 in additional economic activity in the state
- > Direct employment of 10,300 jobs including faculty, residents, staff, and student workers on both campuses, plus an indirect support of another 13,800 jobs in the state, for a total employment impact of over 24,000 jobs in Colorado
- > Payroll spending of \$850 million and another \$580 million in wages and salaries from secondary markets, producing a state personal income impact of up to \$1.43 billion to Colorado
- > Due to the concentration of direct jobs in health care and higher education, the average income for jobs supported was over \$59,000
- > Nearly \$60 million in sales and income tax revenue contributed to the state of Colorado

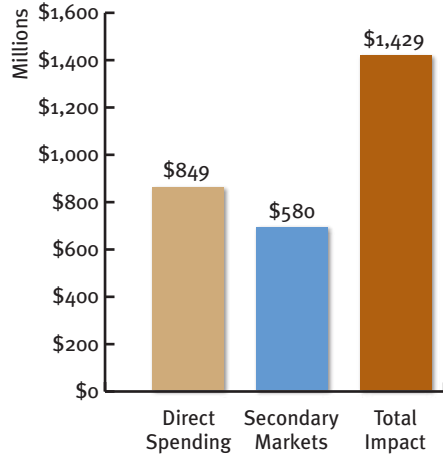
Total Economic Impact by the University



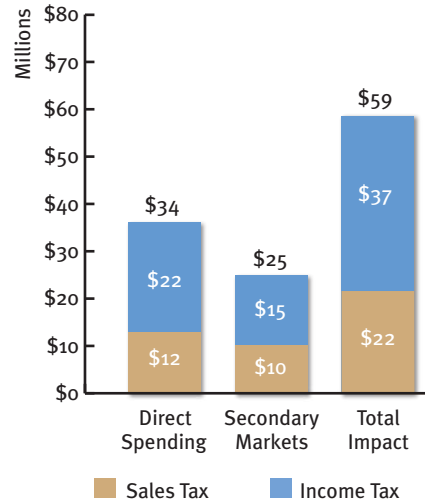
State Jobs Created by the University



State Personal Income Generated by the University



Tax Revenue Generated by the University



The university educates and inspires thousands to become innovators, teachers, health care providers, community leaders, and decision-makers.





University Revenue

Compared to Colorado businesses, University of Colorado Denver revenue would easily place the university in the top 15 among publicly traded companies based on 2009 sales. Note that this is based on companies that have headquarters, not just a presence, in Colorado.

University of Colorado Denver Revenue Comparison to Colorado Public Companies²

2010 Rank	Name	2009 Sales (000)	Industry
10	Emergency Medical Services	2,569,685	Medical services
11	Echostar Corp.	1,903,559	Satellite television equipment
12	Chipotle Mexican Grill Inc.	1,518,417	Restaurants
13	Woodward Governor Co.	1,430,125	Industrial electrical equipment
	University of Colorado Denver	1,241,278	
14	ProLogis	1,223,082	Real estate trust
15	TW Telecom Inc.	1,211,390	Telecommunications
16	Apartment Investment & Mgmt. Co.	1,195,763	Real estate trust
17	Teletch Holdings Inc	1,167,915	Business process outsourcing

²ColoradoBiz Magazine. Top 100 Colorado-based public companies, June 2010. <http://www.cobizmag.com/lists/>

This employment ranks the university among the **top 5** among private employers with headquarters in Colorado.

University Jobs

The university not only plays an important role in educating the state workforce, but also provides the state with thousands of direct and indirect jobs. As of June 2010, the university employed 10,298 individuals including faculty, staff and research assistants, medical residents, and student workers. This employment ranks the university among the top five among private employers with headquarters in Colorado.

University of Colorado Denver Employment Comparison of Employees in Colorado³

2010 Rank	Company	Employees	Industry
3	Centura Health	13,000	Health care
4	Safeway	10,680	Supermarkets
	University of Colorado Denver	10,298	
5	HCA-HealthOne	9,600	Health Care
6	Qwest	8,300	Telecommunications
7	Lockheed Martin	7,700	Aerospace & Defense
8	Target	6,250	Retail

As of June 2010, the university employed **10,298 individuals including faculty, staff and research assistants, medical residents, and student workers.**

creating jobs



³ Colorado Economic Development Data Book, 2010-11. Colorado Office of Economic Development and International Trade.

economic impact

As the only public academic health center in the state, the new Anschutz Medical Campus allows for improved collaboration between the medical campus and affiliate hospitals

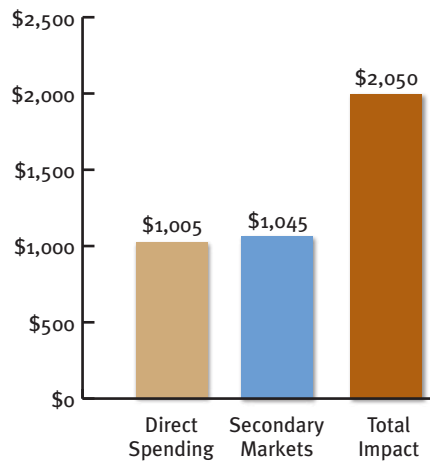


Anschutz Medical Campus

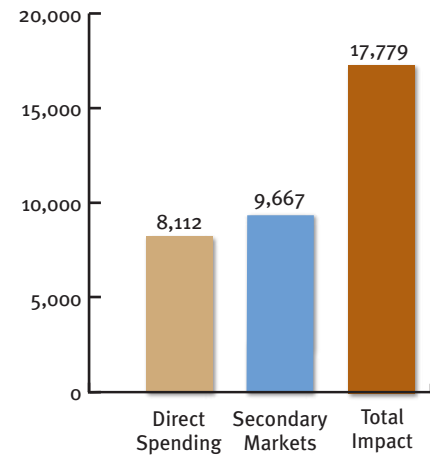
As the only public academic health center in the state, the new Anschutz Medical Campus allows for improved collaboration between the medical campus and affiliate hospitals. For the fiscal year ending June 30, 2010, the following are highlights of the economic contributions of the Anschutz Medical Campus and affiliated University Physicians Incorporated:

- > Total state economic impact of \$2.05 billion through direct campus expenditures
- > Direct campus employment of 8,112 for a total employment impact of nearly 17,800 jobs in Colorado
- > More than \$46 million in individual income tax and sales tax revenue to the state from campus payroll and spending

Statewide Economic Impact of the Anschutz Medical Campus



Jobs Created by the Anschutz Medical Campus



Economic Impact with Campus Partners

The Anschutz Medical Campus offers a unique opportunity to improve the instructional mission and delivery of health care by locating the campus adjacent to the University of Colorado Hospital and The Children's Hospital—the School of Medicine's primary adult and pediatric clinical partners. The combined economic impact of the Anschutz Medical Campus, the University of Colorado Hospital, and The Children's Hospital is estimated as follows:

- > Direct expenses of nearly \$2.25 billion for a total economic impact of \$4.6 billion to the state
- > Direct employment of 16,515 for a total impact of 36,168 jobs in the state
- > Direct payroll of more than \$1.3 billion for a total state personal income impact of more than \$2.1 billion



Centers and Institutes

The **Colorado Clinical and Translational Sciences Institute**, housed on the University of Colorado Anschutz Medical Campus, is a collaborative enterprise between the University of Colorado Denver, the University of Colorado Boulder, six affiliated hospitals and health care organizations, the private sector and multiple community organizations with a goal to accelerate the translation of research discoveries into improved patient care and public health.

- > Facilitates community-based participatory research to educate and connect investigators and communities, develop programs to improve relationships and build trust between academicians and communities, and make funds available for community engagement and research.
- > A Summer Undergraduate Minority Mentoring program brings together underrepresented scholars to participate in targeted career development sessions, a one-day translational research fair, and a "Leaders Lunch" series highlighting the accomplishments of diverse university faculty.

The University of Colorado **Cancer Center** is the only National Cancer Institute-designated comprehensive cancer center in the region:

- > A collaborative of six programs, 17 shared core resources, and more than 400 members from three state universities and five institutions
- > Center members include some of the nation's foremost experts in lung cancer, melanoma, prostate cancer, breast cancer, blood cancers, colorectal and gastrointestinal cancers, ovarian cancer, and childhood cancers
- > Operates the region's largest clinical trials program to get the latest discoveries into the hands of medical providers



Contribution to the State Health Care Workforce

At a time when the state is facing dramatic shortages in healthcare professionals, the need for support of these academic programs has reached a critical level.



- > There is an estimated 24 percent increase in the demand for healthcare practitioners in the next 10 years. Compounded by replacing an aging workforce, this translates to a need of over 3,000 healthcare providers each year in the state⁴
- > Incorporating the historical growth rates of supply and demand for health care professionals in Colorado, a recent study estimated an additional 2,200 primary care providers will be needed beyond the anticipated supply by 2025⁵
- > Anschutz Medical Campus graduates are responsible for meeting state health care professions workforce needs, as more than half of campus alumni reside in Colorado and 40 percent live in the Denver metro area

Centers and Institutes

The **Rocky Mountain Prevention Research Center** is one of 37 Prevention Research Centers in the United States funded by the Centers for Disease Control and Prevention.

- > An interdependent network of community, academic, and public health partners to conduct prevention research and promote the wide use of practices proven to promote good health.
- > Has brought attention to childhood obesity rates in the San Luis Valley—where 43 percent of middle school students are obese or overweight—through health-promotion studies.

The **Barbara Davis Center for Childhood Diabetes** is one of the largest programs specializing in type 1 diabetes research and care, for both children and adults, in the world.

- > Provides state-of-the-art clinical diabetes care to 80 percent of the children with diabetes in Colorado and 2,000 adults within the Rocky Mountain Region.
- > Provides diabetes-specific diagnostic services to national and international clinical studies and trials, evaluates new therapeutic agents and devices for patient care, and has patented and licensed new diagnostics.

The **National Resource Center for Health and Safety in Child Care and Education** contributes to the improvement of the quality of care for children in early care and education programs.

- > Provides up-to-date resources and technical assistance to families, child care providers, health professionals, policy makers, state and local health departments, and child care regulatory agencies.
- > Developed a training program for child care providers that prepares them to include children with special needs in child care and preschool programs.



Rural Health Care

Students at the Anschutz Medical Campus collaborate with Area Health Education Centers to improve health care in needy communities and to expose students to the community impact of rural health care. While students learn the skills required to become practicing clinicians, they serve the health care needs of patients in more than 50 counties in Colorado and last year participated in the care of more than 40,000 patients. The Colorado Area Health Education Centers strengthen academic-community linkages in the effort to:

- > Increase the potential for minority or disadvantaged students in elementary and secondary schools from rural and medically underserved areas to pursue career pathways in the health professions
- > Increase the potential for health professions students enrolled in degree programs in medicine, dentistry, nursing, pharmacy and allied health to practice in rural and urban medically underserved areas upon graduation
- > Increase access to evidenced-based health information and accredited, high-quality continuing education programs for health professionals serving in rural and urban medically underserved areas
- > Increase access to health education for community residents in rural and urban medically underserved areas in Colorado

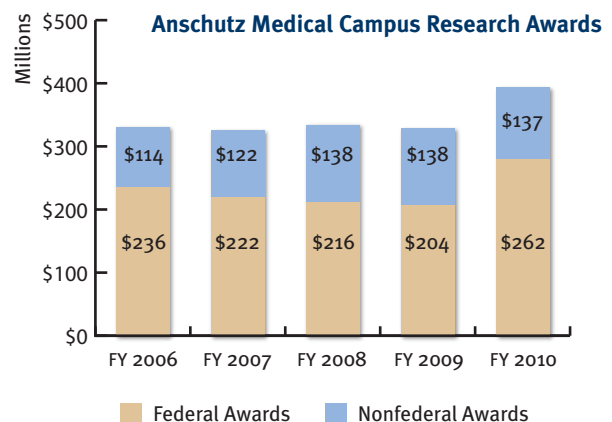
The Research Enterprise

Research and discovery create a value that goes beyond economic multipliers. They develop improvements in medical devices, pharmaceuticals, diagnostics, treatment of debilitating conditions, and cures for disease. FY 2010 marked a banner year for intellectual property and technology transfer:

- > 118 patent applications filed, five patents granted
- > 31 license/option transactions executed
- > More than 120 inventions disclosed
- > Five start-up companies formed

The research enterprise at the Anschutz Medical Campus has a significant impact on the state, bringing in millions of dollars in revenue and benefits from associated medical innovation and discovery:

- > Nearly \$400 million in total research awards in FY 2010, including \$215 million awarded by the National Institutes of Health
- > Nearly \$1.8 billion in research awards to Colorado in the last 5 years
- > The Fitzsimons Life Science District north of the medical campus has successfully attracted 35 biotechnology companies to the area⁶



⁴ Colorado Department of Labor and Employment, Labor Market Information, 2009-2019 Employment Projections

⁵ Colorado Health Institute. Based on 2005 ratios of primary care providers, including physicians, physician assistants, and advanced practice nurses, to population.

⁶ Fitzsimons Redevelopment Authority, December 2010.

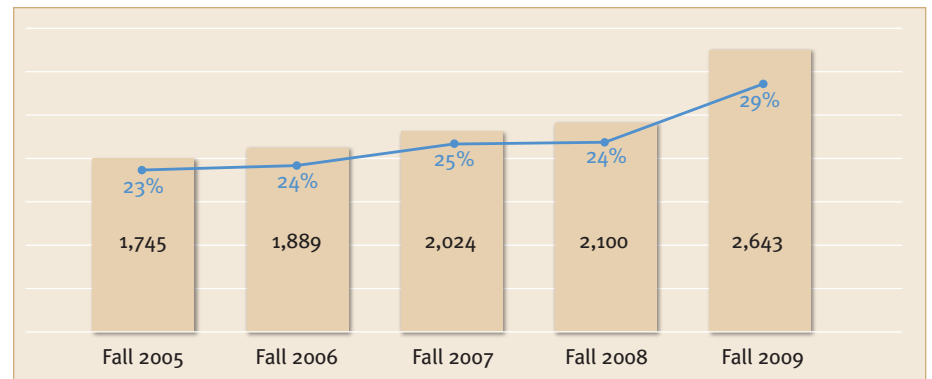


Denver Campus

The convenient downtown location of the Denver Campus provides students with access to business, nonprofit organizations, government offices, and cultural venues. The Denver Campus meets critical needs of the state:

- > One of the state's most diverse campuses, with 24 percent of enrolled students reporting belonging to an ethnic minority
- > Enrolls a significant number of working adults as indicated by part-time enrollment—28 percent of undergraduate students and 64 percent of graduate students attend part-time
- > 29 percent of all undergraduate students are Pell Grant recipients

Denver Campus Pell Recipients

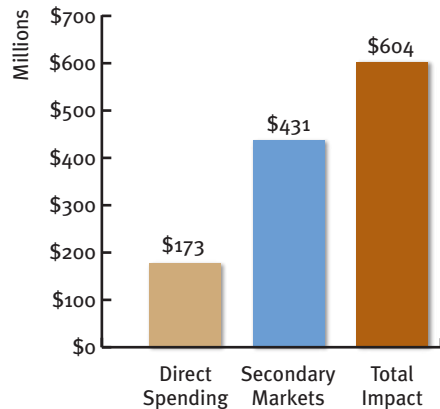


■ Number of Pell Recipients ● Percent of Undergraduate Student Fall Headcount

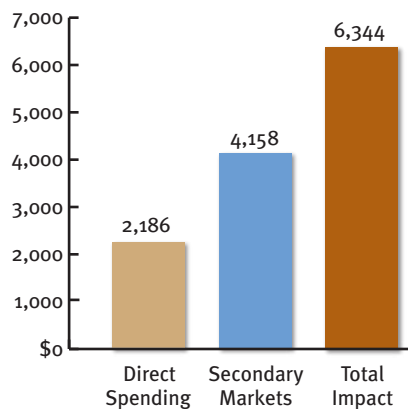
For FY 2010, the economic contributions of the Denver Campus include:

- > Total state economic impact of \$604 million through direct campus expenditures
- > Direct campus employment of 2,186 for a total employment impact of more than 6,300 jobs in Colorado
- > Nearly \$13 million in individual income tax and sales tax revenue to the state from campus payroll and spending

Statewide Economic Impact of the Denver Campus



Jobs Created by the Denver Campus



Contribution to the State Workforce

Denver Campus graduates are responsible for meeting a significant portion of the state's workforce needs:

- > Employment projections suggest nearly 5,600 job openings each year in occupations aligned with campus degree programs
- > Denver Campus graduates are responsible for meeting occupation needs, as nearly three-quarters of campus alumni reside in Colorado
- > The Denver Campus enrolls more graduate students and confers more master's degrees than any other public research institution of higher education in the state

Denver Campus graduates contribute significantly more to the Colorado economy because of the higher average salaries of degree earners. In 2009, the average annual earnings of a worker with a master's degree exceeded \$65,000, 62 percent higher than the average worker. As earnings increase with educational attainment, unemployment rate decreases—for example, those with a master's degree have an unemployment rate that is approximately half the rate of all workers. (see Figure next page).

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high earnings





Table 7. Unemployment Rate and Annual Earnings

Unemployment rate		Median annual earnings	
7.9%	Average, all workers	\$40,248	
14.6%	Less than high school	\$23,608	
9.7%	High school graduate	\$32,552	
8.6%	Some college, no degree	\$36,348	
6.8%	Associate degree	\$39,572	
5.2%	Bachelor's degree	\$53,300	
3.9%	Master's degree	\$65,364	
2.3%	Professional degree	\$79,506	
2.5%	Doctoral degree	\$79,664	

Source: US Bureau of Labor Statistics

College Pipeline Programs

The Denver Campus offers several pre-collegiate initiatives to prepare first-generation college-bound students for higher education. The goals of these programs are to provide educational access, early outreach, academic guidance and retention, and ultimately, graduation from an institution of higher education. Below are a few examples:

- > **Pre-collegiate programs for middle school and high school** students, with a particular high school program focused on health careers preparation. These programs are designed to adequately prepare first-generation college-bound students to enroll in a college preparatory curriculum, successfully complete their secondary school career in a timely fashion, and possess the necessary skills to successfully enter and graduate from a college or university of their choice.
- > The **CU Succeed Silver and Gold programs** are partnerships between the Denver Campus and Colorado high schools. The programs provide high school juniors and seniors the opportunity to enhance their academic skills while experiencing the rigor of college coursework at their high school campuses. The programs offer Denver Campus lower-division courses that students may take for dual credit during regularly scheduled periods throughout the school day.
- > The **Denver Transfer Initiative** is a cooperative project between the Community College of Denver and the Denver Campus to increase the graduation rate and completion of baccalaureate degrees for traditionally underserved populations, specifically first-generation, low-income and Hispanic/Latino heritage. The project is designed to provide assistance and support to students throughout their coursework and educational career while attending their first two years at the community college, through the transfer process, and completing their last two years of coursework at the University of Colorado Denver.

Centers and Institutes

The **Bard Center** at the Business School contributes to the growth and robustness of Colorado's economy by supporting new ventures and small business expansion:

- > Hosts an annual Business Plan Competition to encourage the creation of new businesses that benefit Colorado
- > More than 400 graduate students enrolled in courses focused on entrepreneurship
- > Six companies started by alumni presently operating in the on-site incubator

The **National Center for Media Forensics** in the College of Arts and Media investigates the application of scientific methods to aid the criminal and civil justice systems in the areas of audio, video, and computer evidence data gathering and authentication:

- > Dedicated to fostering innovation in media forensics research and education through the creation of new knowledge, applications, methodologies, and services
- > Focused on designing and adapting cutting-edge techniques and technologies that can strengthen forensic science in the United States and abroad
- > Annually hosts several forensic media workshops for local, state, and federal law enforcement

The **National Veterans' Training Institute** provides employment training for individuals who assist the nation's veterans and transitioning service members in finding jobs and careers.

- > 27 courses focused on intensive employment services for disabled and hard-to place veterans
- > Trained approximately 2,000 service providers annually, including 1,200 who come to the center and 800 throughout the U.S. and abroad

The **Positive Early Learning Experiences Center** in the School of Education and Human Development has been recognized nationally for its impact on families and children. The center:

- > investigates, refines, and disseminates inclusive models and curricula for educating preschool children with autism alongside their peers. This model of early intervention, known as LEAP Preschool, is the only approach demonstrated to impact all of the characteristics of autism
- > provides technical assistance to local school districts, Head Start programs, and mental health agencies on key features of behavioral teacher and parent training that can prevent the occurrence of challenging behavior



Economic Contributions The University of Colorado **Denver** | **Anschutz Medical Campus**

