Overview and Summary of Recent Initiatives

State technology strategy is steered by the **Wyoming Business Council,** the board that operates state economic-development programs and sponsors several initiatives at the University of Wyoming. Since the last BIO report, Wyoming created a $550 million **Higher Education Endowment** (Chapter 190 of 2005 Session Laws, Senate File 122), to be financed by federal mineral royalties. Of the total, about $70 million will be available for Eminent-Scholar endowments in multiple fields including the biosciences.

Building Bioscience R&D Capacity

Faculty development programs

Income from the Higher Education Endowment Fund will be used to endow faculty chairs for recruitment or retention of Eminent Scholars and teachers at both the university and community colleges (one-third of the total). The selection of eligible academic disciplines will rely on a survey of the state's needs currently under way, but the law specifies several examples including the health sciences.

Research programs

In 2005, the University of Wyoming received its largest-ever single research grant, a 5-year, $13 million award to the College of Health Sciences from the **Institutional Development Award (IDeA)** program at the National Institutes of Health. The program is aimed at building interdisciplinary research capacity in women's health and reproductive biology; integrative physiology, including neuroscience; and rural public health outcomes. The university's $7.2 million EPSCoR award from the National Science Foundation (NSF) will partly fund an ecological geneticist and a **Nucleic Acid Exploration Core Facility.**

Encouraging Academic/Industrial Interaction

The University of Wyoming is a founding member of the **Wyoming Technology Organization,** a multisector technology council.

Moving Technology into the Marketplace

Supporting bioscience entrepreneurs and emerging companies

The Business Council supports the **Research Products Center (RPC),** the university's technology transfer and commercialization office. The RPC also provides technical support to non-university entrepreneurs.

In collaboration with the University of Wyoming, the Business Council operates an **SBIR Phase 0** program that offers grants of $5,000 to companies making Phase I proposals.

The Business Council sponsors **Venture West,** a nonprofit entrepreneurs' forum open to multiple sectors including the biosciences.

Addressing Talent Needs

The IDeA award includes funds for outreach from the University of Wyoming to the state's seven community colleges to promote careers in the biomedical sciences. The award also supports remote access to the university's microscopy core facility.

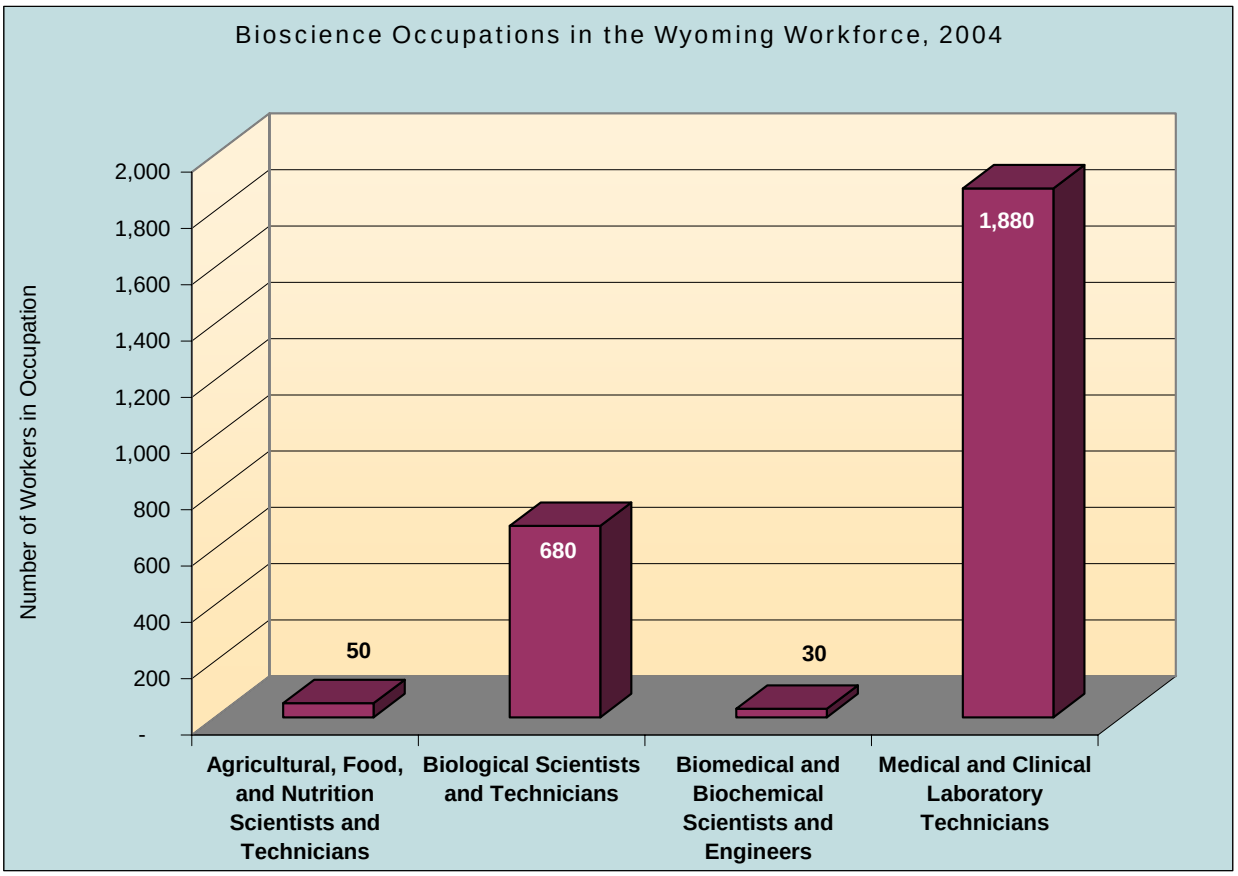
The NSF EPSCoR award will assist in development of K-12 laboratory curricula, aimed at increasing the number of science students matriculating at the university.

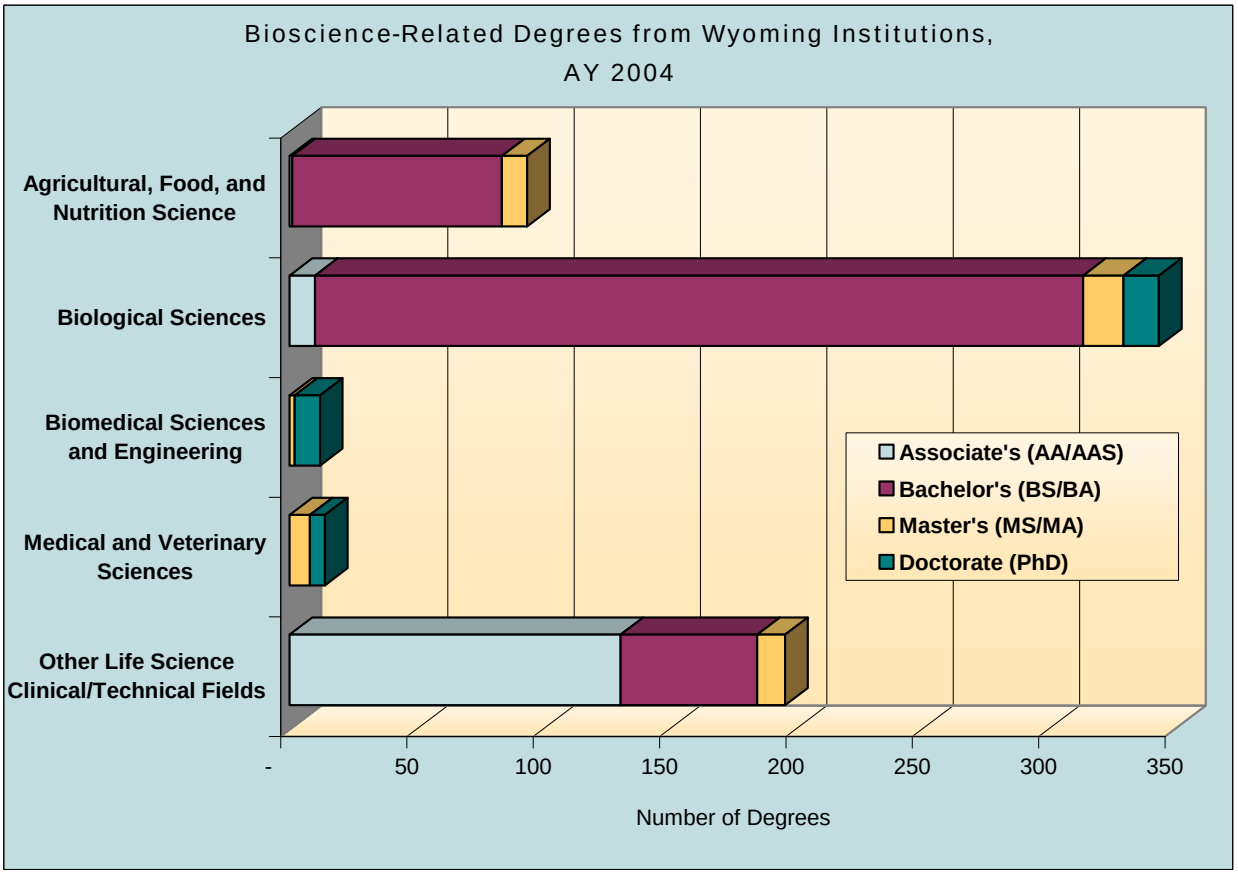
Contact

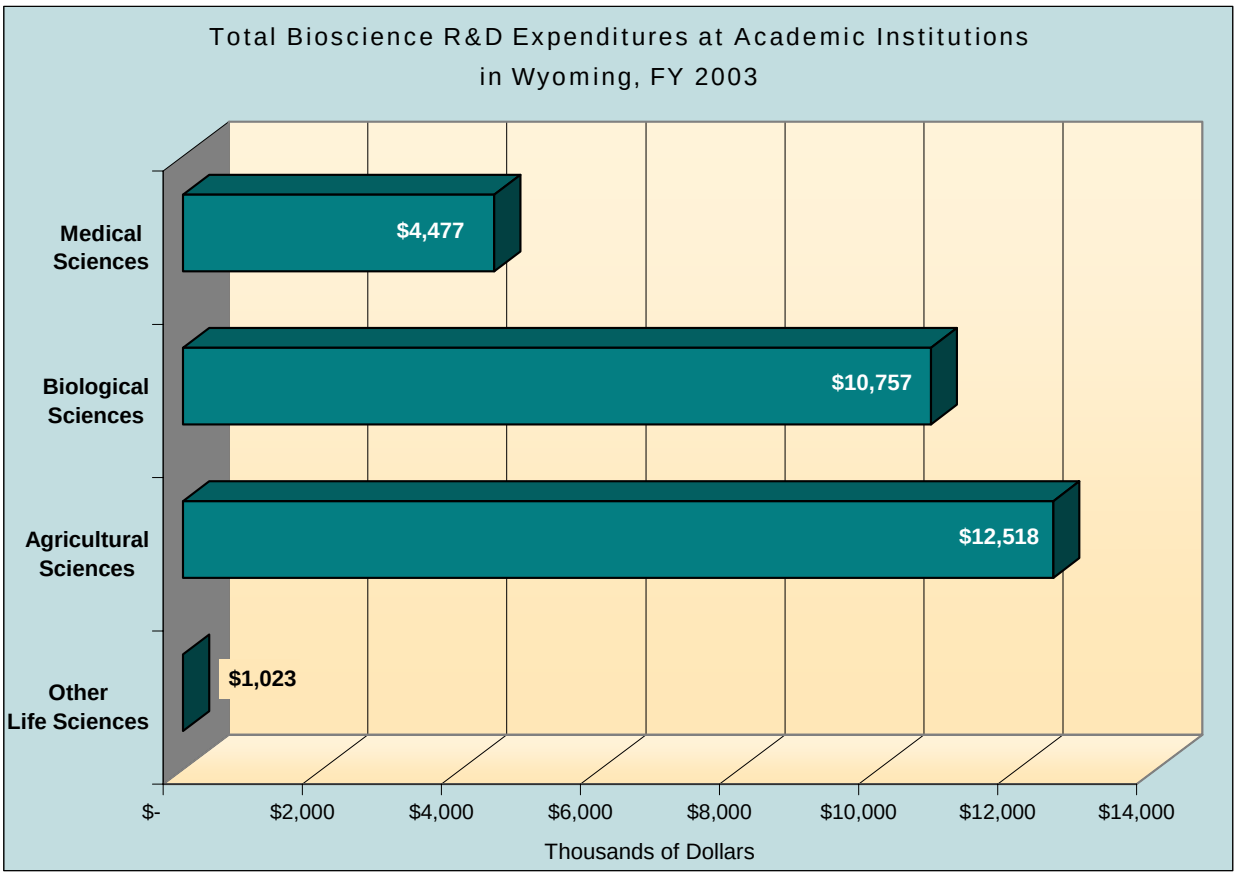
Mr. Tucker Fagan
CEO, Wyoming Business Council
214 West 15th Street
Cheyenne, WY 82002
(307) 777-2800
tfagan1@state.wy.us

Industry Subsector	Wyoming	United States
Agricultural Feedstock & Chemicals		
Establishments 2004	6	2,111
2001-2004 Establishment % Change	-4.1%	0.4%
Employment 2004	406	104,893
2001-2004 Employment % Change	-14.2%	-6.9%
Share of U.S. Employment	0.4%	100.0%
Location Quotient	2.25	n.a.
Average Annual Wage 2004	$65,954	$63,383
Direct-Effect Employment Multiplier	7.37	10.91
Total Employment Impact	2,991	1,212,094
Drugs & Pharmaceuticals		
Establishments 2004	7	2,589
2001-2004 Establishment % Change	-12.5%	-0.6%
Employment 2004	74	313,207
2001-2004 Employment % Change	37.0%	2.7%
Share of U.S. Employment	0.0%	100.0%
Location Quotient	0.14	n.a.
Average Annual Wage 2004	$41,521	$79,303
Direct-Effect Employment Multiplier	2.44	9.51
Total Employment Impact	180	2,731,321
Medical Devices & Equipment		
Establishments 2004	21	15,190
2001-2004 Establishment % Change	-14.5%	0.2%
Employment 2004	62	411,460
2001-2004 Employment % Change	-51.6%	-3.6%
Share of U.S. Employment	0.0%	100.0%
Location Quotient	0.09	n.a.
Average Annual Wage 2004	$23,326	$56,449
Direct-Effect Employment Multiplier	2.12	4.56
Total Employment Impact	131	1,817,705
Research, Testing, & Medical Laboratories		
Establishments 2004	38	20,565
2001-2004 Establishment % Change	-6.8%	19.4%
Employment 2004	375	413,550
2001-2004 Employment % Change	30.7%	8.2%
Share of U.S. Employment	0.1%	100.0%
Location Quotient	0.53	n.a.
Average Annual Wage 2004	$63,432	$65,414
Direct-Effect Employment Multiplier	1.87	3.15
Total Employment Impact	703	1,272,936
TOTAL PRIVATE SECTOR		
Establishments 2004	20,933	8,156,137
2001-2004 Establishment % Change	5.0%	4.8%
Employment 2004	187,735	109,249,195
2001-2004 Employment % Change	3.6%	-0.7%
Share of U.S. Employment	0.2%	100.0%
Location Quotient	n.a.	n.a.
Average Annual Wage 2004	$30,660	$39,003

Source: Battelle calculations -- based on Bureau of Labor Statistics QCEW data from the Minnesota Implan Group, RIMS II Employment Multipliers from the Bureau of Economic Analysis, and the Census Bureau's Economic Census.
Note: n.a. = metric is not applicable.


Bioscience Occupations in the Wyoming Workforce, 2004
Number of Workers in Occupation
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
-
50
680
30
1,880
Agricultural, Food, and Nutrition Scientists and Technicians
Biological Scientists and Technicians
Biomedical and Biochemical Scientists and Engineers
Medical and Clinical Laboratory Technicians


Bioscience-Related Degrees from Wyoming Institutions, AY 2004
Agricultural, Food, and Nutrition Science
Biological Sciences
Biomedical Sciences and Engineering
Medical and Veterinary Sciences
Other Life Science Clinical/Technical Fields
Associate's (AA/AAS)
Bachelor's (BS/BA)
Master's (MS/MA)
Doctorate (PhD)
-
50
100
150
200
250
300
350
Number of Degrees



	Wyoming	United States	Rank
University R&D Expenditures, FY 2003			
Total ($ thousands)	$60,054	$40,104,621	51
Life Science R&D ($ thousands)	$27,752	$24,062,088	49
Percent of Total R&D	46.2%	60.0%	
Life Sciences Per Capita	$55.37	$82.74	
Change in Life Sciences FY 1999–2003	29.1%	52.7%	
NIH Support to Institutions, FY 2004			
Total ($ thousands)	$8,126	$22,556,459	52
Per Capita Expenditures	$16.21	$77.56	
Change in Expenditures FY 2000–2004	71.1%	53.2%	
Higher Education Degrees in Bioscience Fields, AY 2004	283	111,329	51
Bioscience Occupations in the Workforce, 2004	770	616,140	50