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ANNUAL ECONOMIC DEVELOPMENT AND TECHNOLOGY TRANSFER REPORT

Actions Requested:

1. Receive the report.
2. Direct that this report and copies of complete institutional reports be forwarded to the Secretary of the Senate, the Chief Clerk of the House of Representatives, and the Legislative Services Agency by January 15, 2006.

Executive Summary:

The Regent universities promote the economy of Iowa primarily by providing higher education to the people of the state. They also strengthen the Iowa economy by conducting academic research—most notably when it results in intellectual property and applications in the marketplace—and by providing expertise and assistance directly to Iowa's people, industry, and communities. The Regent universities thus support the economy of Iowa primarily through the pursuit of their core missions, and their economic contributions to the state are fundamentally linked to their overall academic excellence.

Numerous organizational units at the Regent universities are engaged with Iowa's people, industry, and communities for the promotion of Iowa's economic development. Key economic development efforts include: research, intellectual property development, and technology transfer; business incubation and acceleration; direct technical assistance to local and regional economic development groups; technical assistance and counseling for businesses; market research for Iowa companies; and attracting and retaining industry in Iowa.

Background:

Each Regent university submitted a comprehensive report on economic development and technology transfer to the Board Office. These include a comprehensive listing of each institution's economic development projects in Iowa, including project descriptions; the Iowa cities where the project occurs; and, where possible, the names of businesses or other entities served. Complete institutional reports are on file in the Board Office and will be forwarded to the legislature as part of the annual report. The narrative components of institutional reports are also included in the Regents Exhibit Book. A very brief summary of institutional reports follows.

Research and Technology Transfer

The main purpose of the research undertaken by the Regent universities is to contribute to science and human understanding. Nevertheless, the universities' research efforts, the external support these attract, the creation of intellectual property, and the transfer of new technologies for broader application make vital contributions to the economy of the state.

According to a U.S. Commerce Department Bureau of Economic Analysis multiplier, the \$459 million in external support for research at the Regent universities supported 16,500 jobs in FY 2005¹. Aggregate FY 2005 revenue to Iowa companies as a result of Regents university licensed technologies (i.e., sales reported by Iowa companies of products and services based on licensed inventions) was \$27.2 million.

Table 1 (on page 3 of this memo) presents data on indicators related to intellectual property, technology transfer, and external support for FY 2003 through FY 2005.

¹ "These job figures include both full- and part-time jobs. They also include jobs supported directly on campuses and jobs supported indirectly outside campuses as institutional expenditures ripple through local and state economies." Source: AAU memorandum, Employment Impacts of Academic R&D, August 19, 2003.

Research Parks and Business Incubation

Regent universities support business and job creation in part through business and technology incubation. The universities' incubators provide new companies with guidance through the start-up process, connections to universities' expertise, affordable space, reception services, office equipment, conference rooms, and other amenities at reasonable rates. Some examples of the universities' contributions in this area include the following:

- UNI provides seven incubator suites for entrepreneurs at the UNI Regional Business Center in downtown Waterloo and UNI's MyEntreNet program provides virtual incubator services to eight rural Iowa counties. Together with UNI's student business incubator, these programs have assisted in the launch of 70 new or expanded ventures, which in turn have created more than 200 jobs.
- Six new companies and affiliates joined the ISU Research Park in FY05, bringing the historical total to 145 companies. Currently, there are 44 companies located in the park, employing over 600 people. A recent study of the ISU Research Park indicated that tenants generate \$134 million in industrial output. The ISU Research Park tenants generated an estimated \$3.7 million in state tax income in FY05.
- The 38 active Iowa companies affiliated with the University of Iowa's Technology Innovation Center and Oakdale Research Park, together with the university's anchor laboratories at Oakdale, employ 1,454 Iowans from 67 home towns in 22 Iowa counties. These entities thus draw upon a regional labor shed encompassing one-fifth of the State.

Other Technical Assistance

In addition to the support provided by the research parks, numerous other Regent university programs and projects provide technical assistance to businesses, entrepreneurs and Iowa communities. Examples of the universities' contributions in this area include the following:

- UNI outreach programs in business and community development (including those provided by the Institute for Decision Making, the John Pappajohn Entrepreneurial Center, the Iowa Waste Reduction Center, and the Iowa Center for Immigrant Leadership and Integration) have served nearly 3,550 Iowa businesses and entrepreneurs and 468 community clients, involving 36,000 Iowans in all 99 counties.
- ISU's Institute for Physical Research and Technology (IPRT), Center for Industrial Research and Service (CIRAS), Small Business Development Center (SBDC), and Iowa Manufacturing Extension Partnership (IMEP) work with companies to improve production and management. The annual overall economic impact of IPRT Company Assistance programs is estimated at \$19.6 million, leveraged from a state investment of just \$850,000. Companies that worked with CIRAS and IMEP reported 1,057 jobs were added or retained as a result of the assistance they received.
- SUI's John Pappajohn Entrepreneurial Center (JPEC) served 2,107 students in entrepreneurial courses during FY 05. Since JPEC opened the Bedell Entrepreneurship Learning Laboratory in May 2004, 22 student teams have incubated their businesses at the 10,000 square-foot lab. The SUI Small Business Development Center provided more than 4,130 hours of assistance to 363 Iowa small businesses in FY 05.

Economic Development Appropriations FY 2001 – FY 2006

This year, as in prior years, the state has made direct appropriations to each of the Regent universities in partial support of specific enterprises associated with the promotion of economic development. These enterprises, it should be emphasized, constitute only a small part of the wide range of Regent university projects and services that promote economic development in Iowa. Table 2 (on page 4 of this memo) provides an overview of state appropriations and allocations for these projects for fiscal years 2001-2006. During this period, total annual appropriations for Regent economic development programs declined from \$7.63 million to \$2.97 million.

Table 1: Intellectual Property, Technology Transfer, and External Support FY 2003 – FY 2005

Indicators	FY 2003				FY 2004				FY 2005			
	ISU	SUI	UNI	Regents Total	ISU	SUI	UNI	Regents Total	ISU	SUI	UNI	Regents Total
1. Number of disclosures of intellectual property	134	75	1	210	110	86	3	199	142	83	4	229
2. Number of patent applications filed	37	101	2	140	52	118	3	173	54	115	3	172
3. Number of patents issued	27	39	2	68	27	46	2	75	15	34	2	51
4. Number of license and option agreements executed on institutional intellectual property	187	42	2	231	166	47	1	214	218	35	1	254
5. Number of license and option agreements yielding income	437	177	6	620	362	164	5	531	317	176	9	502
6. Royalties/license fee income (\$ million)	6.82	8.76	0.03	15.61	2.80	10.73	0.03	13.56	4.90	18.05	0.06	23.01
7. Revenue to Iowa companies as a result of licensed technologies ² (\$ million)	14.80	1.51	0.89	17.20	18.00	0.74	2.66	21.40	22.00	1.08	4.16	27.24
8. Total sponsored funding (\$ million)	230.40	352.32	23.85	606.57	274.22	333.30	32.58	640.10	286.90	359.60	33.07	679.57
9. Sponsored funding for research (\$ million)	148.00	279.32	1.75	429.07	163.08	267.55	2.43	433.06	179.80	276.78	2.47	459.05
10. Corporate-sponsored funding for research and economic development ³ (\$ million)	26.40	33.27	3.21	62.89	25.25	30.38	1.76	57.39	28.50	31.23	1.92	61.65
11. Iowa special appropriations for economic development (\$ million)	2.42	0.25	0.37	3.05	2.37	0.25	0.36	2.98	2.37	0.25	0.36	2.98

² Aggregate sales reported by Iowa companies of products and services based on licensed inventions.

³ Excludes corporate philanthropy.

Table 2: Economic Development Appropriations FY 2001 - FY 2006

	FY 2001 Final Appropriations	FY 2002 Final Appropriations	FY 2003 Final Appropriations	FY 2004 Final Appropriations	FY 2005 Final Appropriations	FY 2006 Appropriations
University of Iowa						
Center for Advanced Drug Development	275,811	250,774	113,172	110,626	110,343	110,343
Oakdale Research Park/Innovation Center	<u>341,021</u>	<u>310,590</u>	<u>140,166</u>	<u>137,012</u>	<u>136,662</u>	<u>136,662</u>
Total Economic Development	616,832	561,364	253,338	247,638	247,005	247,005
Iowa State University						
Institute for Physical Research & Technology	4,474,108	4,057,557	1,790,657	1,669,627	1,665,325	1,665,325
Small Business Development Centers	1,220,417	1,096,416	474,097	551,375	550,000	550,000
Research Park/ISIS	<u>385,271</u>	<u>351,130</u>	<u>159,407</u>	<u>148,615</u>	<u>148,232</u>	<u>148,232</u>
Total Economic Development	6,079,796	5,505,103	2,424,161	2,369,617	2,363,557	2,363,557
University of Northern Iowa						
Metal Casting Center	176,861	162,996	70,406	68,822	68,646	68,646
Institute for Decision Making	<u>757,098</u>	<u>692,625</u>	<u>300,149</u>	<u>293,395</u>	<u>292,645</u>	<u>292,645</u>
Total Economic Development	933,959	855,621	370,555	362,217	361,291	361,291
TOTAL	7,630,587	6,922,088	3,048,054	2,979,472	2,971,853	2,971,853

Numbers in shaded areas represent allocations and not appropriated amounts.