

The University of New Mexico
Office of the Vice President for Research and Economic Development



ANNUAL REPORT fiscal year 2006



The University of New Mexico
Office of the Vice President for Research and Economic Development

ANNUAL REPORT fiscal year 2006

ANNUAL REPORT fiscal year 2006, is published by the
Office of the Vice President for Research and Economic Development, Research Development Services

The University of New Mexico
MSC05 3180
1717 Roma NE
Albuquerque, NM 87131

505/277-2256
research@unm.edu
<http://research.unm.edu>

Cover photo credits, from top down: 1-3. Matt Suhre, 4. Barry Shaver, 5. John Sumrow, and 6. Michael Mouchette.

MESSAGE

From the Vice President for Research and Economic Development



It is a pleasure for me to release this annual report, which summarizes the University of New Mexico's (UNM) sponsored activities for fiscal year 2006 (i.e., July 1, 2005 - June 30, 2006, FY06). The purpose of this report is to present statistics of FY06 sponsored research, public service and instruction efforts at the main campus, the Health Sciences Center (HSC), and the branch campuses.

UNM faculty have continued their commitment to excellence by seeking sponsored project support and producing scholarly and creative works. While the majority of research at UNM is faculty-based, there is a noticeable level of activity which involves non-faculty initiatives. The scholarly and creative works are listed in *Faculty Publications and Creative Works* and the details of contract and grant activities are compiled in the *Contract and Grant Awards Report*, both of

which are published annually by the Office of the Vice President for Research and Economic Development, Research Development Services.

The awards received for FY06 total \$298.6M, of which \$165.4M is attributed to the main campus, and \$133.2M is from the Health Sciences Center. These awards assist in providing resources that are necessary to improve the quality of research and teaching at UNM. They also enhance the opportunities for students to be trained in state-of-the-art laboratories in a variety of disciplines.

UNM centers continue to pursue cutting-edge research and promote interdisciplinary collaborations. They acquired \$18.3M in awards and were responsible for supporting numerous faculty, staff, and students from a broad spectrum of disciplines on campus.

Terminology pertinent to this report include the following: contract and grant (C&G) awards – new funds that were acquired during FY06; expenditures – expenses incurred with respect to C&G awards in effect during FY06; facilities and administrative costs (F&A) – overhead funds that were generated as a result of expenditures incurred during FY06.

Please join me in thanking our dedicated faculty, staff, and students involved in the research, public service, and instruction efforts at UNM. It is their successful endeavors that enhance UNM's visibility at the national and international levels, as well as contribute to the economic growth of New Mexico and the region. Thanks are also due to a number of individuals who have helped in preparing this report. In particular, I would like to acknowledge the efforts of Ann Powell, Valerie Roybal, and Denise Wallen of the Office of the Vice President for Research and Economic Development, Rena Vinyard and Stacy Catanach of the Health Sciences Center Financial Services Division, and Barbara West of the Contract and Grant Accounting Office.

As always, I welcome your comments and questions with respect to this annual report, and other issues related to research activities at UNM.

A handwritten signature in black ink that reads "Terry L. Yates". The signature is written in a cursive style with a large, sweeping "T" and "Y".

Terry L. Yates
Vice President for Research and Economic Development

CONTENTS

Summary	7
Statistics Summary: Contract and Grant Awards and Funding Sources FY06	8
Table 1a: Total C&G Awards (UNM)	
Table 1b: Source of C&G Awards (UNM)	
Table 1c: Source of C&G Awards (Main Campus)	
Table 1d: Source of C&G Awards (HSC)	
Statistics Summary: Funding Categories FY06	9
Table 2: Funding Category and Totals (Main Campus, HSC, UNM)	
Figure 1: Breakdown of Federal Funds	
National Rankings	10
UNM's Ranking for R&D Expenditures at Universities and Colleges	
UNM's Ranking for Federally-financed R&D Expenditures at Universities and Colleges	
UNM's Ranking for Non-federal R&D Expenditures at Universities and Colleges	
UNM's Ranking for Total R&D Expenditures at Public Universities and Colleges	
UNM's Ranking for R&D Expenditures at Universities and Colleges with a Medical School	
UNM's Ranking for Federal Obligations for Science and Engineering R&D to Universities and Colleges	
UNM's Ranking for Federal Obligations for Science and Engineering to Universities and Colleges	
Awards	11
Table 3: Award Dollars FY97 - FY06	
Table 4: Award Dollars by Source of Funds: Funds Distribution FY06	
Table 5: Awards by Campus Area FY06	
Figure 2: Contract and Grant Awards by Centers/Institutes II and III FY06	
Table 6: Funding Agencies Providing More Than \$2M in Support FY06	
Ten Year History	14
Figure 3: Total Contract and Grant Awards Ten Year History FY97 - FY06	
Figure 4: Total Contract and Grant Expenditures Ten Year History FY97-FY06	
Proposals	15
Table 7: Proposals by Campus Area: School, College and Division FY06	

Expenditures	16
Table 8: UNM Contract and Grant Expenditures FY06	
Figure 5: Total Expenditures by Centers/Institutes II and III FY06	
Facilities and Administrative (F&A) Costs	18
Table 9: F&A Costs Generated FY06	
Appendix	19
References	20

SUMMARY

Contract and grant (C&G) awards received by the University of New Mexico are from the federal government, state and local government, national laboratories, private and corporate foundations, industry, universities, and nonprofit organizations. A breakdown of FY06 (July 1, 2005 - June 30, 2006) awards, by category, is as follows:

	<u>FY05</u>	<u>FY06</u>
Research	\$165,535,927	\$157,978,282
Instruction & Training	24,075,890	22,971,126
Public Service & Other	52,149,047	63,883,930
Fellowships	555,912	1,454,377
Financial Aid	<u>53,128,654</u>	<u>52,298,862</u>
Total	\$295,445,430	\$298,586,577

The FY06 total for external sponsored support to the University of New Mexico is \$298.6 million. As in the past, the federal government remains the primary source of UNM sponsored projects and represents 59% of sponsored support at UNM. State funding represents 20% of sponsored support. Funding from the national laboratories represents 2% of total sponsored support. Foundation support contributes to 2% of sponsored funds. Industry accounted for 6% of total sponsored support. Other support, which includes funds from universities, nonprofit organizations, local schools, and foreign entities accounted for 11% of sponsored support.

The largest sponsor was the U.S. Department of Health and Human Services, followed by the State of New Mexico, the U.S. Department of Education, the National Science Foundation, and the U.S. Department of Defense. Foundations, industry, and local/state government continue to play an important ongoing role for UNM's sponsored activities.

The total number of funded contracts and grants in FY06 is 1,835. Of the colleges and schools, the School of Medicine had the largest amount of outside funding; the second was the College of Arts and Sciences, followed by the School of Engineering and the College of Education. Other significant support was distributed among the remaining colleges and schools, institutes, centers, and programs.

Tables 1a through 1d and Table 2 summarize statistics pertaining to funding sources with respect to C&G awards for the main campus as well as the Health Sciences Center (HSC).

STATISTICS SUMMARY

Contract and Grant Awards and Funding Sources FY06

Table 1a

<u>Total C&G Awards</u>	<u>Percentage of Total C&G Awards</u>
Total C&G Awards: UNM	\$298.6M
Total C&G Awards: Main Campus	\$165.4M (55%)
Total C&G Awards: HSC	\$133.2M (45%)

Table 1b

<u>Source of C&G Awards (UNM)</u>	<u>Percentage of Total C&G Awards</u>
	[Total: \$298.6M]
Foundations	2%
Federal	59%
Industry	6%
National Laboratories	2%
State of New Mexico	20%
Other	11%

Table 1c

<u>Source of C&G Awards (Main Campus)</u>	<u>Percentage of Total C&G Awards</u>
	[Total: \$165.4M]
Foundations	1%
Federal	60%
Industry	4%
National Laboratories	4%
State of New Mexico	22%
Other	9%

Table 1d

<u>Source of C&G Awards (HSC)</u>	<u>Percentage of Total C&G Awards</u>
	[Total: \$133.2M]
Foundations	2%
Federal	57%
Industry	9%
National Laboratories	<1%
State of New Mexico	18%
Other	14%

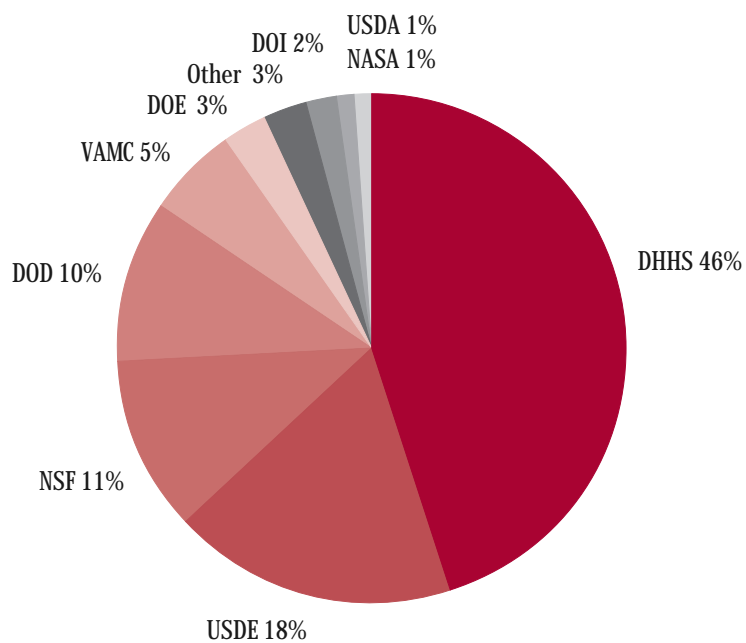
STATISTICS SUMMARY

Funding Categories FY06

Table 2

Funding Category	Main Campus [Total: \$165.4M]	HSC [Total: \$133.2M]	UNM [Total: \$298.6M]
Research	48%	59%	53%
Public Service	9%	36%	21%
Instruction	10%	4%	8%
Fellowships	<1%	<1%	<1%
Financial Aid	32%	<1%	18%

Figure 1: Breakdown of Federal Funds FY06



NATIONAL RANKINGS

The National Science Foundation (NSF) maintains data on research and development (R&D) expenditures and obligations in science and engineering for the nation's universities. R&D expenditures and obligations are from all sources of funding: federal, state, local, industrial, foundation, and miscellaneous. Below is UNM's rankings based on this NSF data.

UNM's Ranking for R&D Expenditures at Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY05	89

UNM's Ranking for Federally-financed R&D Expenditures at Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY05	71

UNM's Ranking for Non-federal R&D Expenditures at Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY05	100

UNM's Ranking for Total R&D Expenditures at Public Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY05	59

UNM's Ranking for R&D Expenditures at Universities and Colleges with a Medical School

<u>Year</u>	<u>Ranking</u>
FY05	65

UNM's Ranking for Federal Obligations for Science and Engineering R&D to Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY04	86

UNM's Ranking for Federal Obligations for Science and Engineering to Universities and Colleges

<u>Year</u>	<u>Ranking</u>
FY04	85

AWARDS

External sponsored support at the University of New Mexico has increased 87 percent over a ten-year period. In FY06 UNM received \$298.6M for 1,835 awards. The Health Sciences Center had the largest percentage of contract and grant awards, 45%, for a total \$133.2M. The College of Arts and Sciences accounted for 14% of the awards, for a total of \$41M, and the School of Engineering accounted for 6% of the awards, for a total of \$19.2M. Table 3 reflects the number of contract and grants awarded from FY97 through FY06.

Table 3: Award Dollars FY97 - FY06

<u>Year</u>	<u>Main</u>	<u>HSC</u>	<u>Total</u>
1997	109,623,005	50,062,341	159,685,346
1998	121,291,377	54,539,233	175,830,610
1999	148,630,252	69,997,296	218,627,548
2000	135,775,784	77,516,603	213,292,387
2001	147,240,410	88,490,573	235,730,983
2002	137,527,282	106,822,522	244,349,804
2003	139,266,229	116,461,558	255,727,787
2004	171,658,766	106,742,859	278,401,626
2005	167,602,213	127,843,217	295,445,430
2006	165,385,317	133,201,260	298,586,577

Table 4: Award Dollars by Source of Funds: Funds Distribution FY06

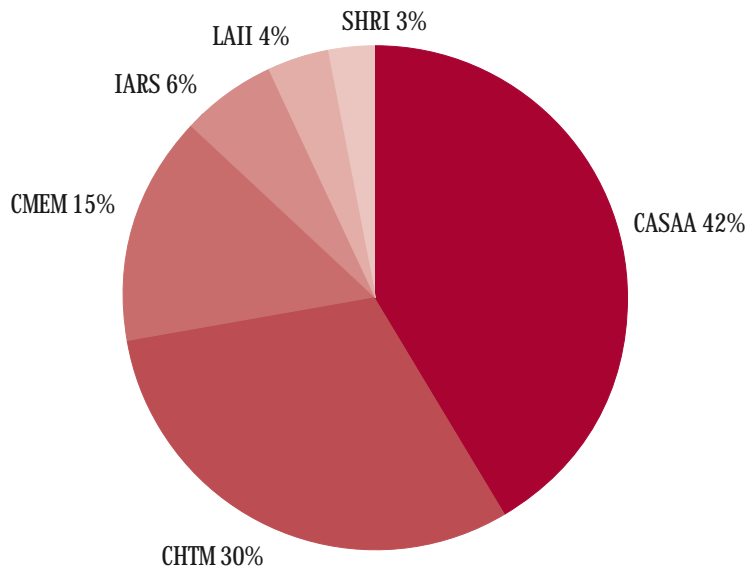
<u>Source</u>	<u>Fin. Aid</u>	<u>Main</u>	<u>HSC</u>	<u>Total</u>	<u>%</u>
Federal Agencies	\$27,408,723	\$72,577,698	\$75,298,964	\$175,285,385	59%
State of New Mexico	24,890,139	11,820,616	24,412,373	61,123,128	20%
National Laboratories	0	5,994,642	546,185	6,540,827	2%
Industry	0	7,291,363	11,808,368	19,099,731	6%
Foundations	0	2,069,436	2,603,512	4,672,948	2%
Other	<u>0</u>	<u>13,332,700</u>	<u>18,531,858</u>	<u>31,864,558</u>	<u>11%</u>
Total	\$52,298,862	\$113,086,455	\$133,201,260	\$298,586,577	100%

Table 5: Awards by Campus Area FY06

<u>Campus Area</u>	<u># of Awards</u>	<u>\$ Amount</u>	<u>%</u>
<i>Main Campus and Branch Campuses</i>			
Anderson Schools of Management	8	\$360,158	<1%
College of Arts and Sciences	430	41,052,962	14%
College of Education	45	6,120,280	2%
College of Fine Arts	2	55,000	<1%
Division of Continuing Education	6	303,597	<1%
School of Architecture and Planning	4	272,389	<1%
School of Engineering	183	19,166,688	6%
School of Law	32	3,487,597	1%
Financial Aid	6	52,298,862	18%
UNM Centers/Institutes (Category II) ^H	23	2,278,271	1%
UNM SRE Centers (Category III) ^L	120	16,051,073	5%
Vice President for Research & Economic Development	84	9,910,047	3%
Vice President for Student Affairs	20	2,496,488	1%
Other ^J	39	3,528,796	1%
Branch Campuses	86	8,003,109	3%
<i>Health Sciences Center</i>			
Vice President for HSC and Other ^N	6	6,250,463	2%
School of Medicine	633	108,884,139	36%
College of Nursing	6	810,362	<1%
College of Pharmacy	39	3,793,276	1%
Cancer Research and Treatment Center ^P	<u>63</u>	<u>13,463,020</u>	4%
Sub Total Main Campus and Branch Campuses	1088	165,385,317	55%
Sub Total Health Sciences Center	<u>747</u>	<u>133,201,260</u>	<u>45%</u>
Grand Total	1,835	\$298,586,577	100%

H, L, J, N, P See "References," page 20.

Figure 2: Contract and Grants Awards by Centers/Institutes II and III FY06



CASAA = Center on Alcoholism, Substance Abuse and Addictions; CHTM = Center for High Technology Materials; CMEM = Center for Micro-Engineered Materials; IARS = Institute for Applied Research Services; LAII = Latin American and Iberian Institute; SHRI = Southwest Hispanic Research Institute.

Table 6: Funding Agencies Providing More Than \$2M in Support FY06

<u>Agency</u>	<u>\$ Amount</u>
U.S. Department of Health and Human Services	\$84,024,369
State of New Mexico	61,123,128
U.S. Department of Education	33,892,214
National Science Foundation	20,231,070
U.S. Department of Defense	18,687,877
U.S. Department of Energy	4,801,978
Sandia National Laboratories	4,043,318
U.S. Department of Interior	3,234,849
Albuquerque Public Schools	3,098,739
National Aeronautics and Space Administration	2,581,428
Enserca Engineering	2,208,372
U.S. Department of Agriculture	2,148,789

TEN YEAR HISTORY

Figure 3: Total Contract and Grant Awards Ten Year History FY97 - FY06

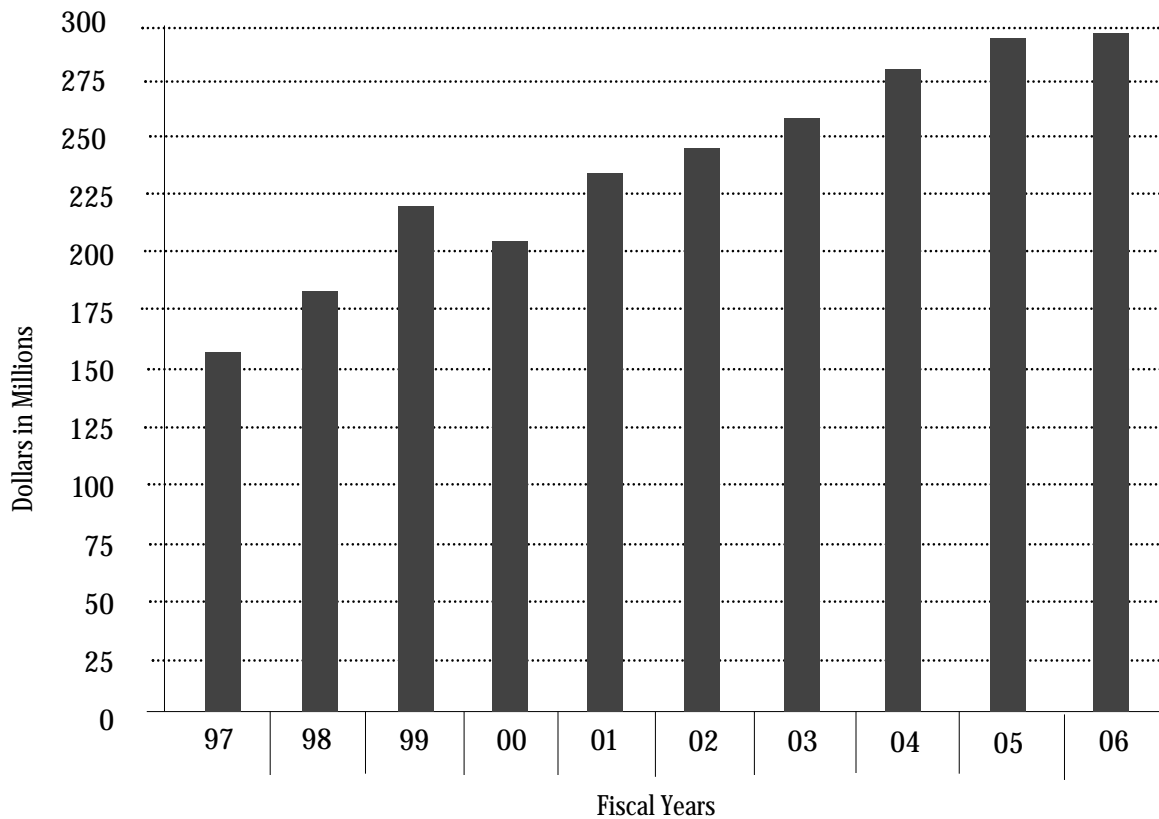
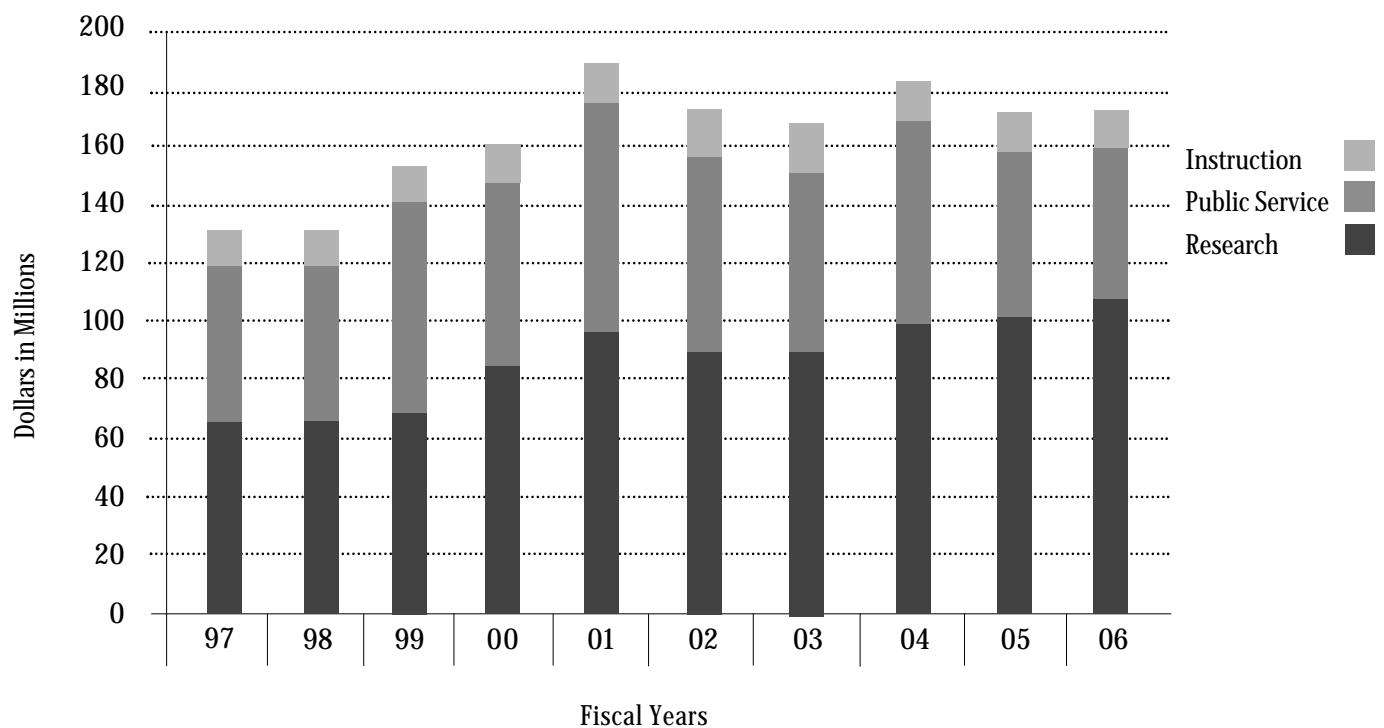


Figure 4: Total Contract and Grant Expenditures Ten Year History FY97 - FY06^G



^G Please see "References," page 32. Note: Financial aid, endowments, fellowships, and F&A are not included in this graph.

PROPOSALS

During FY06, 2,055 proposals were submitted by UNM faculty and staff.

Table 7: Proposals by Campus Area: School, College and Division FY06

<u>Campus Area</u>	<u>Number of Proposals</u>	<u>\$ Amount Requested</u>	<u>%</u>
<i>Main Campus and Branch Campuses</i>			
Anderson Schools of Management	10	\$643,949	<1%
College of Arts and Sciences	425	77,169,998	17%
College of Education	39	7,532,680	2%
College of Fine Arts	6	197,978	<1%
Division of Continuing Education	7	406,017	<1%
School of Architecture and Planning	5	276,493	<1%
School of Engineering	164	31,431,230	7%
School of Law	29	3,109,475	<1%
UNM Centers/Institutes (Category II) ^H	20	3,847,397	<1%
UNM SRE Centers (Category III) ^L	74	30,465,622	7%
Vice President for Research & Economic Development and Other ^J	104	30,758,396	7%
Branch Campuses	76	12,624,353	3%
<i>Health Sciences Center</i>			
Vice President for HSC and Other ^N	3	490,288	<1%
School of Medicine	988	234,148,325	52%
College of Nursing	15	5,313,275	1%
College of Pharmacy	78	13,709,019	3%
Cancer Research and Treatment Center ^P	12	267,616	<1%
Sub Total Main Campus and Branch Campuses	959	198,463,588	44%
Sub Total Health Sciences Center	<u>1,096</u>	<u>253,928,523</u>	<u>56%</u>
Total	2,055	\$452,392,111	100%

H, L, J, N, P See "References," page 20.

EXPENDITURES

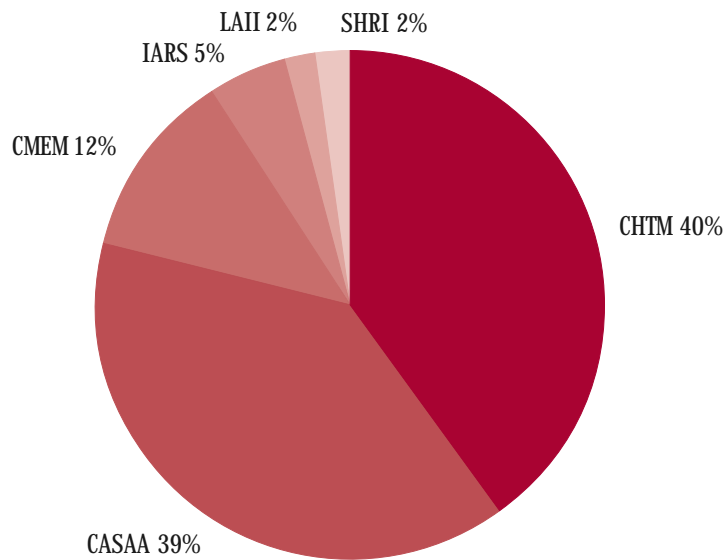
During FY06, expenditures at UNM were \$224M^G, of which \$139.7M were due to the main campus and \$84.3M were due to HSC. This number represents expenses actually incurred for items such as salaries, fringe benefits, materials, services, equipment, and travel (excluding F&A costs).

Table 8: UNM Contract and Grant Expenditures FY06

<u>Campus Area</u>	<u>Expenditures</u>	<u>%</u>
<i>Main Campus and Branch Campuses</i>		
Anderson Schools of Management	\$103,335	<1%
College of Arts and Sciences	28,080,459	13%
College of Education	6,010,596	3%
College of Fine Arts	147,189	<1%
Division of Continuing Education	235,376	<1%
Extended University	398,834	<1%
School of Architecture and Planning	195,553	<1%
School of Engineering	12,596,812	6%
School of Law	2,566,223	1%
UNM Centers/Institutes (Category II)		
Latin American and Iberian Institute	480,943	<1%
Southwest Hispanic Research Institute	259,938	<1%
UNM Strategic Research Emphasis Centers (Category III)		
Center on Alcoholism, Substance Abuse and Addictions	6,748,457	3%
Center for High Technology Materials	6,001,477	3%
Center for Micro-Engineered Materials	1,892,955	1%
Financial Aid	49,334,550	22%
Vice President for Research and Economic Development	11,627,857	5%
Vice President for Student Affairs	2,348,333	1%
Other ^J	4,656,572	2%
Branch Campuses		
Gallup	1,935,058	1%
Los Alamos	446,051	<1%
Taos Education Center	932,260	<1%
Valencia	2,688,678	1%
Health Sciences Center		
Vice President for HSC and Other ^N	5,339,257	2%
School of Medicine	65,257,351	29%
College of Nursing	986,299	<1%
College of Pharmacy	2,886,056	1%
Cancer Research and Treatment Center ^P	9,821,254	4%
Sub Total Main Campus and Branch Campuses	139,687,506	63%
Sub Total Health Sciences Center	84,290,217	37%
Total	\$223,977,723	100%

G, J, N, P See "References," page 32.

Figure 5: Total Expenditures by Centers/Institutes II and III FY06



CASAA = Center on Alcoholism, Substance Abuse and Addictions; CHTM = Center for High Technology Materials; CMEM = Center for Micro-Engineered Materials; IARS = Institute for Applied Research Services; LAII = Latin American and Iberian Institute; SHRI = Southwest Hispanic Research Institute.

FACILITIES AND ADMINISTRATIVE COSTS

Facilities and Administrative Costs (F&A, formerly known as indirect costs or IDC) are overhead funds that are generated while expenditures were incurred during FY06. The following table details the F&A generated by the various colleges, schools and divisions, centers and institutes, and branch campuses.

Table 9: F&A Generated FY06

<u>Campus Area</u>	<u>F&A</u>	<u>%</u>
<i>Main Campus and Branch Campuses</i>		
Anderson Schools of Management	\$18,637	<1%
College of Arts and Sciences	8,101,052	23%
College of Education	390,976	1%
College of Fine Arts	33,211	<1%
Division of Continuing Education	23,524	<1%
Extended University	19,414	<1%
School of Architecture and Planning	36,429	<1%
School of Engineering	3,560,784	10%
School of Law	389,868	1%
UNM Centers/Institutes (Category II)		
Latin American and Iberian Institute	20,038	<1%
Southwest Hispanic Research Institute	52,023	<1%
UNM Strategic Research Emphasis Centers (Category III)		
Center on Alcoholism, Substance Abuse and Addictions	1,213,757	3%
Center for High Technology Materials	2,026,693	6%
Center for Micro-Engineered Materials	444,619	1%
Vice President for Research & Economic Development and Other ^J	1,269,555	4%
Branch Campuses		
Gallup	96,521	<1%
Los Alamos	18,662	<1%
Taos	33,188	<1%
Valencia	79,246	<1%
Health Sciences Center		
Vice President for HSC and Other ^N	90,672	<1%
School of Medicine	13,590,018	38%
College of Nursing	226,988	<1%
College of Pharmacy	521,847	1%
Cancer Research and Treatment Center ^P	<u>3,126,574</u>	9%
Sub Total Main Campus and Branch Campuses	17,828,197	51%
Sub Total Health Sciences Center	<u>17,556,099</u>	<u>49%</u>
Total	35,384,296	100%

^{J, N, P} Please see "References," page 20.

APPENDIX

The Office of the Vice President for Research and Economic Development

The Office of the Vice President for Research and Economic Development's Sponsored Projects Services (SPS) reviews all proposals from the main campus and branch campuses prior to their submission to funding agencies. The SPS staff works closely with principal investigators to ensure an accurate proposal, with all requisite forms, budgets, and certifications, as well as timely turnaround. After this internal review, each proposal is signed by the designated University administrator on behalf of the Vice President for Research and Economic Development.

Proposals and awards for the Health Sciences Center (HSC) are handled through the HSC Financial Services Division. The Health Sciences Center includes the School of Medicine, College of Nursing, College of Pharmacy, and other programs.

The Office of the Vice President for Research and Economic Development's Research Development Services (RDS) is committed to supporting the research service needs of the University of New Mexico. RDS offers workshops, seminars and training for faculty, staff, and students in support of the University's research mission. RDS is responsible for managing and maintaining the main campus research information services, which includes the publication of *Awards Annual Report*, the *Contract and Grant Awards Report*, *Faculty Publications and Creative Works*, *Quantum* magazine, and the *Guide for Principal Investigators*.

RDS is also responsible for supporting electronic research administration at UNM by maintaining and developing several databases that are accessible from the OVPRED web site including the *SMARTS|GENIUS Researcher Profiling and Funding Matching System* and the *Midas Databases of Funding Sources*. *SMARTS|GENIUS* allows UNM faculty to record their research profile and receive funding information automatically via email. The UNM research community can access *Midas* to search a number of public and private databases to look for funding sources. Additional information, such as funding resources, news and events, limited competitions, and policies and procedures, is available at the OVPRED web site <http://research.unm.edu>.

Additionally, RDS is responsible for coordinating large and complex proposal efforts and advising multi-disciplinary teams in their proposal development activities. RDS works enable and support collaboration between researchers from different disciplines and fields. To assist multidisciplinary groups develop competitive proposals we engage in the following: investigate potential funding sources; assess project readiness and competitiveness in line with funding agency guidelines; liaison with funding agencies; assist or participate in targeted proposal development efforts; review proposal drafts; assist in the formation of multi-institutional and inter-institutional partnerships; and organize and lead proposal reviews.

REFERENCES

Key to Symbols

G \$173.9M: approximately 64%, 28%, 8% attributed to research, public service, and instruction respectively; see Figure 3.

H UNM Centers/Institutes (Category II) includes: Institute for Applied Research Services (which includes Bureau of Business and Economic Research and Division of Government Research), Latin American and Iberian Institute, Ibero-American Science & Technology Education Consortium, Spanish Colonial Research Center, and Southwest Hispanic Research Center.

L UNM Strategic Research Emphasis Centers (Category III) includes: Center on Alcoholism, Substance Abuse and Addictions; Center for High Technology Materials; Center for Micro-Engineered Materials; and Center for High Performance Computing.

J Other includes: College of Pharmacy; School of Medicine; School of Public Administration; University College; Vice President for Institutional Advancement; Vice President for Academic Affairs.

N Vice President for HSC and Other includes: General Clinical Research Center, Health Sciences Center Library and Informatics Center; and Undergraduate Medical Education.

P Cancer Research and Treatment Center includes: New Mexico Tumor Registry.