



Research Assessment Program
Fiscal Years 2009 and 2010

October 2010



Texas Higher Education Coordinating Board

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Mission of the Coordinating Board

The Texas Higher Education Coordinating Board's mission is to work with the Legislature, Governor, governing boards, higher education institutions and other entities to help Texas meet the goals of the state's higher education plan, *Closing the Gaps by 2015*, and thereby provide the people of Texas the widest access to higher education of the highest quality in the most efficient manner.

Philosophy of the Coordinating Board

The Texas Higher Education Coordinating Board will promote access to quality higher education across the state with the conviction that access without quality is mediocrity and that quality without access is unacceptable. The Board will be open, ethical, responsive, and committed to public service. The Board will approach its work with a sense of purpose and responsibility to the people of Texas and is committed to the best use of public monies. The Coordinating Board will engage in actions that add value to Texas and to higher education. The agency will avoid efforts that do not add value or that are duplicated by other entities.

This document is available on the Texas Higher Education Coordinating Board Website: <http://www.thecb.state.tx.us>. For more information, contact:

Stacey Silverman, Ph.D.

Texas Higher Education Coordinating Board

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Table of Contents

Background	1
Review Process	2
Coordinating Board Recommendation	2
Consultants' Reviews	3
Texas State University – San Marcos Edwards Aquifer Research and Data Center	3
The University of Texas at Austin Bureau of Business Research	6
The University of Texas Southwestern Medical Center Center for Obesity, Diabetes and Metabolism Research	9
Appendices	
A – Texas Education Code, Chapter 144 – Research Assessment Program	A-1
B – Letters to and from the Legislative Budget Board	B-1
C – 2012 Research Assessment Program – External Review Teams	C-1
D – 2012 Research Assessment Program – Institution and Program Contacts	D-1
E – 2012 Research Assessment Program – Self-Study Form	E-1
F – 2012 Research Assessment Program – Evaluation Form	F-1

Background

The 70th Texas Legislature in 1987 established the Research Assessment Program (RAP) to evaluate special item funding for research projects at Texas higher education institutions. Chapter 144 of the Texas Education Code mandates a review by the Texas Higher Education Coordinating Board (Coordinating Board) of separately budgeted research programs at Texas institutions of higher education (see Appendix A). The Coordinating Board submits a proposed schedule of research special items to the Legislative Budget Board (LBB), LBB approves the programs for review, and the Coordinating Board reports its findings to that body (see Appendix B).

The Coordinating Board is responsible for administering the RAP evaluations of selected research projects. Following the reviews, the Coordinating Board provides the report to the LBB. The report includes recommendations regarding the continuation of special item support of the reviewed projects.

For the 2012-2013 biennium, the Coordinating Board, in consultation with the Advisory Committee on Research Programs (ACORP), proposed to review three special items at three institutions. Two projects were located at general academic institutions, while the third supports a research venture at a health-related institution. In recognition of the state's current fiscal constraints, the three RAP reviews were conducted using out-of-state expert consultants via desk and phone review, rather than conducting site visits.

The three selected special item research efforts total \$6.7 million annually in special item general revenue funding. The following projects were selected and reviewed:

	FY 2012	FY 2013
Texas State University – San Marcos		
Edwards Aquifer Research and Data Center	\$154,090	\$154,090
The University of Texas at Austin		
Bureau of Business Research	\$174,365	\$174,365
The University of Texas Southwestern Medical Center		
Center for Obesity, Diabetes and Metabolism Research	\$6,412,492	\$6,412,492
Annual Total	\$6,740,947	\$6,740,947

Review Process

The three selected institutions prepared a self-study for the program assessment. The self-studies were prepared based on a form, which is included as Appendix E. The self-studies for all projects are available upon request to the Coordinating Board's Division of Workforce, Academic Affairs and Research.

Following submission of the institutions' self-studies, the Coordinating Board staff selected review teams of two out-of-state experts per project. Members of the review teams were identified as leaders in their field. The institutions provided input by submitting possible experts. The list of review team members is provided in Appendix C.

The review teams studied the self-studies and then held teleconference review sessions during which the program representatives provided additional information and responded to reviewers' questions. The reviews were completed in early October 2012.

Following the desk and teleconference review, the review teams prepared written consensus evaluations of the programs and provided recommendations related to the program continuation. The program assessments addressed four criteria as specified in the statute:

- 1) intrinsic merit;
- 2) research performance;
- 3) development of knowledge and instruction in advanced and emerging technologies; and
- 4) economic development.

Reviewers based their evaluations on a scale that allowed for five rankings:

- excellent;
- very good;
- satisfactory;
- fair;
- poor.

Each project and the review teams' reviews are presented in the report. The evaluation form used by the review teams to assess each program is included as Appendix F.

The institutions had an opportunity to review and respond to the RAP evaluations of their projects. A list of institutional and program contacts is provided in Appendix D.

Coordinating Board Recommendation

In accordance with Texas Education Code, Chapter 144, the Coordinating Board reports on the RAP assessment and makes recommendations concerning reauthorization, revision, or discontinuation of each research program to the LBB.

No assessment component of any reviewed program received an evaluation score less than "satisfactory." The Coordinating Board, based on the external expert RAP review, recommends reauthorization and continuation in funding of all three projects reviewed for FY 2012-2013.

Consultants' Reviews

Texas State University – San Marcos Edwards Aquifer Research and Data Center

Funded Since Fiscal Year 1980

2012/2013 State Appropriation: \$308,180

Program Abstract

The mission of the Edwards Aquifer Research and Data Center is to provide a public service in the study, understanding, and use of this very important natural resource. To achieve this mission the Edwards Aquifer Research Center is committed to the following four areas of public service and research.

- a) Data Center: Serve as a state and national data center to collect, maintain, and make available information on the Edwards Aquifer;
- b) Education Center: Improve the public understanding of the Edwards Aquifer through the development and the dissemination of educational materials; and through the development and implementation of educational programs;
- c) Technical Service Center: Provide technical services to various governmental agencies and the public;
- d) Research Center: Conduct, or assist in the basic research on the Edwards Aquifer in the areas of:
 - a. Water quality monitoring by chemical and biological methods.
 - b. Biology, chemistry, and hydrology of the aquifer system.
 - c. Modeling optimal use of water.
 - d. Recharge sources.

By providing programs that increase the understanding of the Aquifer resource the public will be better able to make informed decisions about future economic development.

Review Team: Robert Hershler, Ph.D.
Curator and Research Zoologist
Smithsonian Institution

Dan Larsen, Ph.D.
Professor and Interim Associate Director
The University of Memphis

Intrinsic Merit: Very Good

The Edwards Aquifer Research and Data Center (EARDC) at Texas State University was established by the State of Texas in 1980. Throughout its more than 30 year history, the EARDC has provided vital services to the State in the form of biological and hydrological studies. The center has also demonstrated a strong commitment to educating the public on topics relating to water supply and water quality and has filled a need by training numerous students that subsequently entered the water resources field. The EARDC is a very strong regional program that has flourished under the dedicated and devoted efforts of its Director, Dr. Glenn Longley. The center has employed outstanding personnel and its water quality laboratory is top notch. The capabilities of the EARDC are evidenced by their outstanding series of technical reports focused on the aquifer and its management, and its frequent consultation by external agencies and organizations. The EARDC has been very successful over the years in obtaining external funding to support its mission. The breadth of research conducted by the EARDC during its tenure has been impressive, but has narrowed somewhat in recent years (now focusing mostly on water quality assessment) owing to internal constraints and available funding opportunities. Although the intrinsic merit of the EARDC is very good, a somewhat broader scope of research would benefit the program.

Research performance: Satisfactory

The EARDC's research output has consisted of technical reports produced under contract and journal publications, some of which are the products of Texas State student research. The productivity of the program in terms of technical reports is excellent, testifying both to the high quality of the scientific staff and the frequency with which the center has received external funding for contract projects. The frequency of scientific journal publication is much less and could be improved upon, especially through greater involvement of Texas State students and faculty with this important program. For example, although the EARDC played a pivotal role in the initial discovery and taxonomic description of many of the unique subterranean organisms that live in the Edwards Aquifer, it has been less focused on biological studies of this fascinating fauna in recent years. There are many compelling research questions pertaining to this biota that could form suitable student theses. Furthermore, given that the karstic Edwards Aquifer is highly utilized, studies of its hydrology may provide insight into the behavior and vulnerability of such systems under anthropogenic stress.

Knowledge and Instruction in Advanced and Emerging Technologies: Very Good

The EARDC has amassed a substantial database of chemical and biologic information on the environmental conditions in the Edwards Aquifer and has made this resource available to the public through contract reports and educational documents. The EARDC staff is conducting cutting edge research using technologies to effectively sample biomass from wells to better understand the biological community of the karst aquifer. In addition, the EARDC's recent sampling and analysis of pharmaceutical and personal care products dissolved in the groundwater follows an international trend of inquiries into the presence of these compounds in municipal water sources. The educational programs at the EARDC engage a broad range of

students from middle school through graduate students at Texas State. The summer camps bring secondary school children in for two days to a week and introduce them to the studies conducted at the EARDC as well as to fun water activities. The center takes an active role in placing students at Texas State as interns at government and regional agencies. Currently, only two graduate students are actively working at the EARDC, suggesting that it is an underutilized research and training asset at the University.

Economic Development: Very Good

The EARDC contributes to the state and local economic development primarily as a resource for providing unbiased information and research on the water resources of the Edwards Aquifer, but also in workforce development through its internship programs and graduate student training. The EARDC obtains most of its operational funding through research contracts with a variety of state, regional, and local agencies. The EARDC's certified drinking water laboratory is a trusted source of information, as indicated by renewed contracts and well established working relationships with the U.S. Fish and Wildlife Service (USFWS), Texas Commission on Environmental Quality (TCEQ), regional water districts, and the City of San Marcos. The EARDC provides essential information that is required to intelligently guide growth in an environmentally sensitive region, especially regarding recharge to the Edwards Aquifer. The EARDC's active role in providing interns to Texas Parks and Wildlife Division (TPWD), USFWS, TCEQ, and other agencies is essential to developing a workforce with the needed training and expertise to guide future use of the Edwards Aquifer resources and economic development.

Recommendations

Overall, the EARDC is operating very well and serving the south-central Texas community admirably, especially through its education, research contracts, and laboratory activities. Two areas of development, however, need improvement: 1) better linkage with science departments at Texas State, regarding both faculty and students, and 2) increased research productivity in terms of journal publication. As the only Ph.D. staff member, Dr. Longley shoulders the bulk of the professional publication activities, which limits the productivity of the EARDC. More research involvement by other faculty in science programs at Texas State could help increase collaboration and engage more students, both at the undergraduate and graduate levels. Currently, one collaborative project with Texas State research faculty is underway; however, the EARDC could likely handle several such research projects at any given time. The obvious output from these efforts is more graduate student involvement at the center and more publications. To accomplish more collaboration, an effort needs to be made by staff at the EARDC and the academic programs at Texas State University to better engage faculty with the center's activities.

The University of Texas at Austin

Bureau of Business Research

Funded Since Fiscal Year 1926

2012/2013 State Appropriation: \$348,730

Program Abstract

The Bureau's mission is to provide Texas business people and policymakers with applied economic research and data products to strengthen the state's business environment and make individual companies and industries more competitive. Since its founding in 1926, the Bureau has developed a reputation for objective analysis of economic issues and trends through publications, independent reports, and sponsored research. Over the past 86 years, as the Texas economy transitioned from an agricultural base to become an energy giant and evolve into a highly diversified global leader in technology and telecommunications, bureau staff members have always identified trends and policy issues and facilitated business networks that enhance and strengthen the State's economic assets. The Bureau supports both the educational and research missions of the University by training undergraduate and graduate students in research methods and applied economic research. Moreover, the Bureau brings The University of Texas at Austin closer to the business community by collaborating with faculty members on sponsored research projects. Working on research projects with Bureau staff allows students to apply theory learned in the classroom on current economic problems using actual data about contemporary, real-world business issues. Ultimately, research projects identify strategies to improve business and industry efficiency and performance and maintain a business climate in which industries can compete and grow.

Review Team: Samuel N. Addy, Ph.D.
Associate Dean for Research and Outreach
The University of Alabama

Jerry N. Conover, Ph.D.
Director
Indiana University

Intrinsic Merit: Very Good

The mission of the Bureau of Business Research (BBR) at The University of Texas at Austin (UT Austin) is to provide Texas businesspeople and policymakers with applied economic research and data products to strengthen the state's business environment and make individual companies and industries more competitive. To achieve its goals and objectives, the BBR currently focuses principally on the three main engines of economic growth for Texas: high technology, entrepreneurship and innovation, and international trade. The BBR produces high-quality, independent, scholarly research and data and also uses its visibility to facilitate business links, some of which are international.

The mission of the BBR is quite appropriate and as meaningful today as it was when the bureau was founded in 1926. While the bureau's fundamental goals are persistent, its specific focus and strategies for achieving the goals should be flexible to adapt as the economic structure of Texas changes. The bureau is fulfilling its objectives and its focus has evolved appropriately in response to trends in the Texas economy.

With its modest-sized but highly qualified staff, the BBR is responsive to clients' needs and it produces insights and data crucial for both private and public policy uses. The bureau has a strong reputation for objective high quality work regionally, nationally, and to some extent internationally.

The State of Texas gets a good return on its investment in the BBR. The bureau leverages special-item funds well, generating up to three dollars of revenue from all sources for every special-item dollar invested. By providing free web content and positively impacting policy and business competitiveness, its full contribution to the state is far beyond just the leveraging of special item funding. For its size and structure, the BBR is definitely a prudent investment for the state.

However, we believe that the BBR's contribution to the state's economy could be further enhanced with a combination of an increase in special-item funding and private industry sponsorship of the BBR's activities to fund additional positions (e.g., a statistician), and the bureau should pursue such sponsorships. Significant reductions in state funding during the past biennium have impacted the bureau's ability to staff work that could generate new outside revenues. Further funding reductions would threaten the bureau's ability to continue the valuable contributions it makes to the state economy directly and indirectly.

Research performance: Very Good

Through its products, service, and publications, the BBR has made substantial contributions to new knowledge, often introducing innovative approaches to analysis that serve as models for other researchers. Bureau personnel participate actively in national and international professional association meetings, and their presentations and publications are of high quality.

The BBR disseminates its research findings and data through various means including its website, refereed and non-refereed journals, and technical reports. The bureau effectively leverages the special-item funds it receives from the state, helping enable far more research than these funds alone can support; this is far better than many bureaus of its size in other states.

By studying trends and conducting surveys, the BBR stays abreast of what research topics are most relevant to its constituents. However, discontinuation of the Texas Business Review as a result of funding cuts limits the bureau's ability to stay fully current on clients' needs. The BBR

should seek alternative ways to gather input on the information needs of stakeholders that it used to track via subscriber surveys.

The bureau should also explore additional types of sponsored research projects it could pursue that are consistent with its competencies. Examples of research areas that are bringing sponsored projects to other research centers are studies of the alignment of workforce capabilities with employer needs, analysis for industry trade associations, economic impact analyses for major investment projects, and the like.

Knowledge and Instruction in Advanced and Emerging Technologies: Not Applicable

Given the BBR's mission and goals focused on applied economic analysis, we believe it is inappropriate to evaluate it for knowledge and instruction in advanced and emerging technologies, as this is not the bureau's role. It is important to note, however, that the BBR engages students and faculty in its research and publication activities, often teaching student research assistants the latest in economic and statistical analysis and software. Bureau staff have also taught classes and guest-lectured in different UT-Austin departments. With respect to this criterion, we would rate the BBR **Very Good**.

Economic Development: Excellent

All of the BBR's activities are important for, and clearly contribute to, the economic development of the state, both directly and indirectly. The bureau provides insight and data, often free of charge, that influence and enhance both public policy and private industry decision making. The BBR monitors the pulse of the Texas economy, a service that's relied on by important Texas stakeholders, and its potential to contribute even more to the state's economic development is great.

Addition of at least one support staff position and a statistician would elevate the BBR's output and enable it to take on funded sponsored research work that it currently has to decline due to staffing constraints. Additional funds would be needed to realize the BBR's additional potential for the good of the state. A combination of public and private funding is ideal since the BBR's activities serve both sectors of the economy. On the public side, an increase in special-item funds could be considered. On the private end, the BBR should seek sponsorships and more funded studies.

Recommendations

The BBR has shown adaptability in the face of shrinking revenue. To reach its potential as a major economic information resource for Texas and beyond, it needs expanded capacity to take on the kinds of work that bring in major grants and contracts. A modest increase in investment by the state in the bureau could be leveraged into substantially greater output of valuable intelligence to meet the needs of Texas leaders.

**The University of Texas Southwestern Medical Center
Center for Obesity, Diabetes and Metabolism Research**

Funded Since Fiscal Year 2008

2012/2013 State Appropriation: \$12,824,984

Program Abstract

UT Southwestern's Center for Obesity, Diabetes and Metabolism Research is uniquely positioned to tackle the national crisis that continues to cost Texas more than \$10 million annually and \$120 billion nationwide. The trends are frightening, with the percent of overweight Texans increasing from 43 to 63 percent in just 15 years. What was once unheard of – Type II diabetes in children – is now common, and obesity dramatically increases not only the risk of diabetes but also heart disease, kidney failure, stroke, high blood pressure, and respiratory problems. The mission of the Center is to gain a vital understanding of the root causes – genetic, molecular, and behavioral – of obesity and its related diseases in order to stem the current catastrophic increase in prevalence. For decades, UT Southwestern had world-renowned expertise in obesity and cholesterol metabolism. State support has allowed UT Southwestern to amass an interdisciplinary team with unparalleled expertise to attack this epidemic from all aspects, including fundamental biochemistry, advanced MRI studies, nutrition, population studies, and genetics. Center faculty now includes three Howard Hughes investigators, seven National Academy and seven Institute of Medicine members, and three Nobel laureates. There are more National Academy members in the Center than exist at any other medical institution in Texas. With seminal discoveries since the Center's inception in 2007 already in clinical trials, the Center is poised to continue to contribute substantially to the State's stated goal of increasing research preeminence and holds tremendous promise to impact healthcare and healthcare costs throughout Texas.

Review Team:

Sam Klein, M.D.

William H. Danforth Professor of Medicine and Nutritional Science
Washington University

Marc Reitman, M.D., Ph.D.

Senior Investigator and Branch Chief
National Institutes of Health

Intrinsic Merit: Excellent

The goal of the UT Southwestern Center for Obesity, Diabetes and Metabolism Research is to gain an understanding of the root causes - genetic, molecular and behavioral - of obesity and its related diseases in order to help address this important public health problem. The obesity epidemic is a major concern for Texas because of its high prevalence, causal relationship with serious health problems (diabetes, hypertension, cardiovascular disease, and some cancers) and the increased health care costs of treating obesity co-morbidities. Only by understanding the biologic/physiologic underpinnings of obesity can progress be made in stemming the

epidemic. The State funds have been used to recruit international superstar scientists to UT Southwestern (Elmqvist and Scherer), to facilitate interdisciplinary interactions and entice investigators to the field (such as via seminar series), and to nurture core facilities, enabling technically difficult experiments to be performed more readily and thus fostering and improving the quality/impact of scientific advances. The caliber of the leadership and outside and internal review advisory groups is also first rate.

In terms of quality of the work (intrinsic importance and impact of the science), faculty caliber and productivity, breadth of approaches, innovation, facilities, and overall performance, the Center is easily one of the top obesity/diabetes/metabolism research centers in the world. Considered in toto, none is better.

Given the importance of the obesity epidemic to Texas, the investment in the UT Southwestern Center for Obesity, Diabetes and Metabolism Research is a wise use of state funds. Another reason why this is great for Texas is that the Center has become a magnet for talent and excellence, attracting large amounts of Federal and private funds and generally ensuring a productive future.

Research performance: Excellent

The level of productivity is staggeringly impressive. The 'Self-Study' provided by the Center lists 707 peer-reviewed scientific publications, 42 patents filed, and 46 Ph.D. thesis dissertations. Many publications are in the best journals, including Science, New England Journal of Medicine, Nature, Nature Medicine, Nature Genetics, and Cell Metabolism. Particular areas where Center investigators have made major contributions to advancing science include the genetic etiology of hepatic steatosis, hypothalamic control of energy homeostasis, biosynthesis of a hormone that regulates energy intake, and the role of another hormone (FGF21) in diabetes.

Another metric of research performance is how the State funds are leveraged. Approximately 10-fold more funds from non-Texas state sources have been awarded, with the vast majority being from Federal (NIH) grants. NIH funding requires a high scientific standard and should be considered a validation of the research performance of the UTSW Center for Obesity, Diabetes and Metabolism Research.

A third measure of research performance is the recognition accorded to the Center faculty. There are three Nobel laureates, three Howard Hughes Investigators, seven National Academy of Science, and seven Institute of Medicine members. These numbers are outstanding by state, national, and international criteria.

Knowledge and Instruction in Advanced and Emerging Technologies: Excellent

The UT Southwestern Center for Obesity, Diabetes and Metabolism Research provides outstanding opportunities for developing new knowledge and instruction in advanced and emerging technologies. The Center is completely integrated within the UT Southwestern Medical

School, and has demonstrated that it is a world leader in generating new knowledge in obesity, diabetes and heart disease. Studies conducted by Center investigators have made important advances and identified new potential therapeutic targets for hypercholesterolemia (PCSK9), hypertriglyceridemia (ANGPTL 3 and 4), obesity (GOAT), hepatic steatosis (PNPLA3), type 2 diabetes (FGF21), and type 1 diabetes (Leptin).

Economic Development: Excellent

The UT Southwestern Center for Obesity, Diabetes and Metabolism Research makes a considerable contribution to the economic development in Texas. The money spent by the state on this program has been used to bring in approximately 10 times that amount from extramural funding. This funding is spent in Texas on personnel salaries, research supplies, and to maintaining UT Southwestern's administrative and physical infrastructure. Moreover, the data generated these extramural grants will be used to secure even more grants in the future, thereby continuing this return on investment and stimulating economic growth.

The objective of this Center in understanding the genetic, molecular, and behavioral underpinnings of obesity and diabetes also has the potential for enormous impact on the long-term economic development of Texas for several reasons: 1) the potential commercial value of identifying novel biomarkers and developing effective approaches for prevention and therapy of obesity and its co-morbidities; 2) the potential reduction in the health care costs required to address the health problems caused by obesity and its related complications; and 3) the potential reduction in the economic burden placed on employers because of the increased health care costs and decreased productivity associated with obese and obesity-related diseases.

The discoveries made by Center investigators have already demonstrated considerable potential for commercialization. For example: 1) discovery of brain pathways involved in regulating food intake set the stage for the approval of a new anti-obesity drug (Belviq; Arena Pharmaceuticals); 2) discovery and characterization of a new protein (PCSK-9) that regulates blood cholesterol levels has led to phase I, II and III pharmaceutical trials with anti-PCSK9 agents to treat hypercholesterolemia; 3) discovery that the hormone leptin can improve glucose control in mice with Type 1 diabetes has led to studies to try this as a new approach for treating patients who have Type 1 diabetes; and 4) collaboration with Center investigators has led to the development of a new biotech company in Dallas, LoneStar Heart, Inc, which is developing new therapies to preserve and restore adequate heart function in patients with Advanced Heart Failure.

Recommendations

The UT Southwestern Center for Obesity, Diabetes and Metabolism Research is a stellar program that truly deserves continued and full support.

Appendix A

TEXAS EDUCATION CODE

CHAPTER 144. RESEARCH ASSESSMENT PROGRAM

Sec. 144.001. DEFINITIONS.

In this chapter:

- (1) "Assessment program" means the research assessment program established under this chapter.
- (2) "Coordinating board" has the meaning assigned by Section 141.001 of this code.
- (3) "Research program" means research conducted by separate research divisions, including research bureaus or institutes and separately budgeted or financed research investigations, that is subject to evaluation and review under this chapter, but does not include departmental research not separately budgeted or financed or contract research and services.
- (4) "Institution of higher education" has the meaning assigned by Section 61.003(8) of this code.

Added by Acts 1987, 70th Leg., ch. 823, Sec. 3.08, eff. June 20, 1987.

Sec. 144.002. ESTABLISHMENT; PURPOSE.

The research assessment program is established to provide for biennial review and evaluation by the coordinating board of all research programs in all public institutions of higher education.

Added by Acts 1987, 70th Leg., ch. 823, Sec. 3.08, eff. June 20, 1987.

Sec. 144.003. GUIDELINES AND PROCEDURES.

- (a) The coordinating board shall appoint an advisory committee consisting of representatives of higher education and private enterprise and other experts in relevant research areas to review and evaluate the research programs.
- (b) The coordinating board with the advice of the advisory committee shall develop guidelines and procedures to evaluate the research programs for intrinsic merit, research performance, and the potential contribution of the research to the development of knowledge and instruction in advanced and emerging technologies and the economic growth of this state.

Added by Acts 1987, 70th Leg., ch. 823, Sec. 3.08, eff. June 20, 1987.

Sec. 144.004. REPORT OF FINDINGS.

(a) Not later than September 1 of the second year of each biennium, the coordinating board shall report to the Legislative Budget Board the preliminary findings of the advisory committee's assessment conducted under this chapter and make recommendations concerning reauthorization, revision, or discontinuation of each research program.

(b) The Legislative Budget Board shall determine the schedule for the review of the research and technology programs that are subject to biennial review and evaluation under this chapter.

Added by Acts 1987, 70th Leg., ch. 823, Sec. 3.08, eff. June 20, 1987.



Appendix B

TEXAS HIGHER EDUCATION COORDINATING BOARD

P.O. Box 12788 Austin, Texas 78711

June 4, 2012

Fred W. Heldenfels IV
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Ryan T. Bridges
STUDENT REPRESENTATIVE

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Robert W. Jenkins
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Ursula Parks
Acting Director
Legislative Budget Board
1501 Congress Avenue, 5th Floor
Austin, Texas 78701

Dear Ms. Parks:

Thank you for your response to our request to discontinue the Research Assessment Program review of research special item funded projects, as statutorily required, Texas Education Code, Chapter 144.

We propose to review three special items at three institutions, two at general academic institutions and one at a health-related institution. In recognition of the state's current fiscal constraints, we propose that the three reviews be conducted via desk/phone rather than on-site. The three special items total to just under \$13.5 million for Edward Aquifer Research; Bureau of Business Research; and Center for Obesity, Diabetes, and Metabolism Research.

We will, of course, follow any directions that you give us, but with our current resources feel it is best to restrict our review to these three special items. Our reviews will take place over the summer, with a report sent to our Board in September. Please let me know if this schedule meets with your approval.

Sincerely,

A handwritten signature in black ink that reads "Raymund A. Paredes".

Raymund A. Paredes

Attachment

c: Greg Owens

AN EQUAL OPPORTUNITY EMPLOYER



LEGISLATIVE BUDGET BOARD

Robert E. Johnson Bldg.
1501 N. Congress Ave. - 5th Floor
Austin, TX 78701

512/463-1200
Fax: 512/475-2902
<http://www.lbt.state.tx.us>

June 28, 2012

Raymund Paredes
Commissioner of Higher Education
Texas Higher Education Coordinating Board
P.O. Box 12788
Austin, TX 78711

Dear Commissioner Paredes:

We have reviewed the schedule of research special items proposed in your letter of June 4, 2012, to be reviewed under the Research Assessment Program as required by Chapter 144 of the Education Code.

Given the limited time available for your review, we agree with the three special items you outlined in your letter for inclusion in the report due on September 1, 2012.

If you need additional information regarding this matter, please contact Greg Owens at 463-1219.

Sincerely,

A handwritten signature in black ink, appearing to read "U. Parks".

Ursula Parks
Acting Director

cc: Ken Levine, Director, Sunset Advisory Commission

Mailing Address: P.O. Box 12666 • Austin, TX 78711-2666

Appendix C

Texas Higher Education Coordinating Board

2012 Research Assessment Program – External Review Teams

Edwards Aquifer Research and Data Center

Robert Hershler, Ph.D.
Curator and Research Zoologist
Department of Invertebrate Zoology
Smithsonian Institution
Washington, D.C. 20013

Dan Larsen, Ph.D.
Professor and Interim Associate Director
The Ground Water Institute
The University of Memphis
Memphis, TN 38152

Bureau of Business Research

Samuel N. Addy, Ph.D.
Associate Dean for Research and Outreach
Culverhouse College of Commerce &
Business Administration
The University of Alabama
Tuscaloosa, AL 35487

Jerry N. Conover, Ph.D.
Director of Indiana Business Research
Center
Kelley School Of Business
Indiana University
Bloomington, IN 47405

Center for Obesity, Diabetes and Metabolism Research

Sam Klein, M.D.
William H. Danforth Professor of Medicine
and Nutritional Science and Chief,
Division of Geriatrics and Nutritional Science
Washington University School of Medicine
St. Louis, MO 63110

Marc Reitman, M.D., Ph.D.
Senior Investigator and Branch Chief
Diabetes, Endocrinology, and Obesity
Branch
National Institutes of Health
Bethesda, MD 20892

Appendix D

Texas Higher Education Coordinating Board

2012 Research Assessment Program – Institution and Program Contacts

Edwards Aquifer Research and Data Center

Dr. Glenn Longley
Director
Edwards Aquifer Research & Data Center
Texas State University
San Marcos, TX 78666

Dr. Mike Blanda
Assistant Vice President for Research and
Federal Relations
Texas State University
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Bureau of Business Research

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Appendix E
 Texas Higher Education Coordinating Board
2012 Research Assessment – Program Self-Study

Completed Self-Studies are due to the Coordinating Board by August 10, 2012. See page 12 for details.

Name of Program:	Director:
Name of Institution:	
Program Mailing Address/ Telephone/Fax/E-Mail:	Name/Address/Telephone/Fax/E-Mail of Person to whom questions concerning this document should be addressed:
Executive Summary (200-word description of mission, objectives, benefits to State):	
Director Signature:	Authorized Institutional Representative Signature: Title:
Date:	Date:

Program Summary

	FY2011 Dollars	FY2012 Dollars
Special Item Expenditures (see Part III.3.)		
External Support: (see Part IV.3.)		
Federal Research		
Federal Other		
Industrial Research		
Private or Foundation		
State and Local Agency		
Other		
Licensing Income (see Part IV.6.)		
	FY2011 Number	FY2012 Number
Personnel Receiving Support (FTE's): (see Part II.3.)		
Faculty		
Professional Staff		
Support Staff		
Students		
Publications: (see Part IV.8.)		
Journal Publications		
Conference Proceedings		
Technical Reports		
Theses (MS or Ph.D.)		
Other		
Intellectual Property: (see Part IV.4. and 6.)		
Patents Filed		
Patents Awarded		
Copyrights Filed		
Copyrights Issued		
Public Service: (see Part IV.12.)		
Workshops		
Symposia		

PART I - RESEARCH MISSION AND HISTORY

1. Check the box which most closely describes your program:
 Facility Operation "Mini" Granting Other
 Research Unit Public Service Organization
2. Describe the goals and objectives of the research activities of this program.
3. When was this program created and by what action? Attach a copy of the enabling action, e.g., statute, Board of Regents minute order, etc.
4. When did the program first receive special item funding? (Indicate any interruptions in state funding). If the program existed prior to receiving special item funding, what was the source of funding?
5. What was the purpose of the program when it was created?
6. How has the purpose of this program changed since it was created?
7. List other programs in Texas with comparable goals and objectives and comment, to the extent possible, on the similarities and differences.

PART II - ORGANIZATION STRUCTURE AND OPERATIONS

1. Provide an organization chart that shows how the program fits into the university structure.
2. Provide an organization chart that shows the major functional components of the program.
3. Personnel Summary

Provide a list of all individuals who received financial support from the program during fiscal year 2012 Include name, full/part time (%), and status (faculty, other professional staff, support staff, students). If more than 12 people were supported, show the number and full-time equivalent (FTE) of each category of employee. If the program is new, show projected staffing for FY2013

FY2012

<u>Name/Title</u>	<u>Status</u>	<u>Percent Time</u>
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4. How is the special item program integrated into the academic program of the institution? Include a description of student exposure to or participation in advanced or emerging technologies as a result of this program.
5. Describe the administrative mechanism(s) used to develop program focus and priorities.
6. Does the program have an advisory group? If so, provide a list of members, dates convened during 2011 and 2012 and most significant contributions to the program to date.
7. Who are the program's clients, how are they identified, and how are their needs determined?
8. How does the program contribute to the economic development of Texas?

PART III - FINANCIAL SUMMARY

1. Budgets for FY2011 and FY2012

Attach a completed copy of the research program's Legislative Budget Board Appropriations Request forms for FY2012-2013 to this report. Be sure it includes the "SPECIAL ITEM SUPPLEMENTAL INFORMATION" page

2. Budget Summary Table FY2011 to FY2012

Fill in the table below. If data are not available for specific entries, provide estimates and indicate them with asterisks (*).

Source of Funds:	FY2011	FY2012	FY2013 (est.)
Special Item			
Other State Support			
Federal			
Private			
Other			
Total Operating Budget for Entity			

1. Expenditure of Special Item Funds FY2011 and FY2012

Fill in the table below. If data are not available for specific entries, provide estimates and indicate them with asterisks (*).

	FY2011	FY2012
A. Personnel		
Faculty		
Professional Staff		
Support Staff		
Students		
B. Permanent Equipment		
C. Travel		
D. Facilities, Rent		
E. Other Direct Costs		
Total		

PART IV - PROGRAM OUTCOMES

This section requires information about the results of the program's activities. Please complete all sections that are appropriate.

1. Briefly describe the program's three most significant research accomplishments during FY2011 and FY2012.
2. List any major collaborative research associations with other programs or organizations during FY2012.
3. List external support received for FY2011 and FY2012.

	<u>Period Covered</u>	<u>Source</u>	<u>Total Amount</u>
--	-----------------------	---------------	---------------------

- | | | | |
|----|-------------------------------|--|--|
| a) | <u>Federal research</u> | | |
| b) | <u>Federal other</u> | | |
| c) | <u>Industrial research</u> | | |
| d) | <u>Private and foundation</u> | | |
| e) | <u>State and local agency</u> | | |
| f) | <u>Other</u> | | |
4. Patents filed and/or issued in FY2011 and FY2012.
 5. Copyrights filed and/or issued FY2011 and FY2012.
 6. Licensing income received in FY2011 and FY2012. List separately, identifying sources.
 7. Describe commercializations of program-developed technologies which occurred in FY2011 and FY2012.
 8. List of publications based on program's research effort during FY2012, including those in press. Put an asterisk next to the refereed publications. If more than ten in any category, briefly describe them instead of providing a list.
 - a. Journal Publications
 - b. Conference Proceedings
 - c. Technical Reports
 - d. Theses (indicate M.S. or Ph.D.)
 - e. Other
 9. List website urls or attach up to five reports from news agencies or other external groups that highlight the program's research activities.
 10. List names, companies, and locations of students supported by the program who accepted industrial positions during FY2011 and FY2012.
 11. List visiting scientists who participated in the program during FY2012. (Give institutional affiliation).
 12. Public service in FY2012. List workshops, symposia etc.

PART V - FUTURE ACTIVITIES

1. Do you expect to request continued special item funding for FY2014-2015 and subsequent biennia?
 No Yes, how much? _____
2. Describe the major opportunities facing the program in the next five years.
3. Describe the major problems facing the program in the next five years.

Submit completed self-studies to the Coordinating Board by August 10, 2012	
E-mail	completed survey to Dale Cherry by August 10, 2012 at: Dale.Cherry@thecb.state.tx.us
And mail	original signed survey to: Dale Cherry Program Specialist
	Overnight mail address: 1200 East Anderson Lane Austin, TX 78752

Appendix F

Texas Higher Education Coordinating Board

2012 Research Assessment Program – Evaluation Form

Program Reviewed:			
Program Contact Person:			
Reviewer:		Date:	

Chapter 144 of the *Texas Higher Education Code* describes the Research Assessment Program. Under this program, the Texas Higher Education Coordinating Board is charged with reviewing separately-budgeted research programs under a schedule determined by the Legislative Budget Board. The legislation specifies that four aspects of these programs shall be evaluated: intrinsic merit, research performance, potential contribution of the research to the development of knowledge and instruction in advanced and emerging technologies, and the potential contribution to economic development. The following are working definitions of each of these criteria. Because of the heterogeneous nature of the programs evaluated under the Research Assessment Program, evaluators may find it necessary to enlarge on these criteria.

Intrinsic merit – the importance of the problem to Texas, technical excellence, capabilities of the investigators, quality of facilities.

Research performance – the research output of the program as measured by publications, leveraging of funds, new discoveries and other developments.

Knowledge and instruction in advanced and emerging technologies – the program’s potential to create new knowledge and the integration of the program in the institution’s academic program.

Economic development – the importance of the program to the economic base of the state, potential for technology transfer, patents and copyrights, human resources development, leveraging.

Evaluators are encouraged to address all aspects of the program being reviewed, but it is requested that these four criteria be specifically addressed in the written comments. In addition, it is requested that a rating be provided for each of these criteria. The following ratings should be used:

- Excellent** One of the best programs in the nation.
- Very Good** A quality program that may be of value to the State but not yet of national stature.
- Satisfactory** A program that is making positive contributions but could be expected to do better.
- Fair** A program that has serious deficiencies that should be addressed.
- Unacceptable** A program that has substantial deficiencies and should be discontinued.

Intrinsic Merit

Rating: _____

Questions that may help you address this topic:

1. Does the program have realistic goals and objectives?
2. Have the program's goals and objectives changed since inception? If so, were these changes appropriate and in the best interests of the state?
3. Is the program fulfilling its stated objectives?
4. Is the program responsive to its clients' needs?
5. Is the work being done of high quality?
6. Does the program have a highly-qualified staff?
7. Are the administrative practices of the program appropriate?
8. Is the program well thought of regionally? nationally? internationally?
9. Is a program such as this a good investment for Texas?

Comments of evaluators:

Research Performance

Rating: _____

Questions that may help you address this topic:

1. Has the program made a substantial contribution to new knowledge?
2. How would you rate the performance of the program regarding publications?
3. How would you rate the performance of the program regarding leveraging of funds?
4. Does the program have a mechanism to ensure that it focuses its efforts on the most relevant research topics?
5. Does the program have a mechanism for actively disseminating the results of its research?

Comments of evaluators:

Knowledge and instruction in advanced and emerging technologies

Rating: _____

Questions that may help you address this topic:

1. Does this program focus its efforts on advanced and emerging technologies?
2. Is the program making substantial contributions in this area?
3. Is the program integrated into the academic program of the institution?
 - is the research being done by faculty and students or by professional staff?
 - is the research relevant to the instructional program of the institution and being incorporated into it?
4. Does the program have the potential to contribute to the development of knowledge and instruction in advanced and emerging technologies?

Comments of evaluators:

Economic development

Rating: _____

Questions that may help you address this topic:

1. Are the results of the research program important to the economic development of the state?
2. Does the program have a process for disseminating the results of its research?
3. What evidence is there that the program is contributing to the economic development of the state?
4. Does the program encourage patents, copyrights, and commercialization of its research results?
5. Is there evidence that students from the program transfer the results of the program's research to industry?
6. Does the program have an advisory committee or other mechanism for assessing the needs of the industry or group being served?
7. Is there evidence of industry support?
8. Does the program have the potential to contribute to economic development?

Comments of evaluators:

Other comments you wish to make: