

**Detailed Assessment Report for
2005 - 2006 M.S. in Communication Disorders**

MISSION

The mission of the Program in Communication Disorders is to guide students in attaining the essential knowledge and skill for entry to the practice of speech-language pathology; to provide the breadth and depth of classroom and practical experiences consonant with each student's developing interests and career goals; and to support student clinical preparation through innovative and collaborative clinical services, on campus and in the community, and an active program of research in understanding, treating, and preventing communication disorders.

STUDENT LEARNING OUTCOMES

Outcome/Objective 1:

Basic Processes

Full Description:

Students will apply knowledge in communication and swallowing processes and disorders, including their biological, neurological, acoustic, psychological, developmental/lifespan, linguistic and cultural bases and apply that knowledge to clinical practice at a level commensurate with entry-level certification and licensure in speech-language pathology

A Student Learning Outcome? Yes

Strategic Plan Initiatives:

- [V-1](#): Life Science Health Collaborations

Institutional Priorities:

- [COM-4](#): Enhance research, graduate education and technology-driven economic development

Accreditation Standards:

The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

Related Measures:

- [M. 1](#): 1a. Embedded essay exam item graded with rubric (C

- [M. 2](#): 1b. Writing exercise evaluated with rubric (COMD 6
- [M. 3](#): 1c. Embedded multiple-choice benchmark exam items
- [M. 4](#): 1d. PRAXIS Results
- [M. 5](#): External Practicum Supervisor Evaluation
- [M. 6](#): Comprehensive Examination

Related Actions:

- [A. 1](#): Revision of Graduating Student Interview
- [A. 2](#): Inclusion of Supplementary Information
- [A. 3](#): Catalog Revision

Outcome/Objective 2:

Prevention, Assessment & Intervention

Full Description:

Students will demonstrate knowledge and skills in the principles and methods of prevention, assessment and intervention for people with communication disorders including anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders at a level commensurate with entry-level certification and licensure in speech-language pathology.

A Student Learning Outcome? Yes

Strategic Plan Initiatives:

- [V-1](#): Life Science Health Collaborations

Institutional Priorities:

- [COM-4](#): Enhance research, graduate education and technology-driven economic development

Accreditation Standards:

The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

Related Measures:

- [M. 1](#): 2a. Case Study evaluated with rubrics COMD 6320
- [M. 2](#): 2b. Embedded multiple-choice benchmark exam items
- [M. 3](#): 2c. Individual Project evaluated with rubric (COMD
- [M. 4](#): 1d. PRAXIS Results
- [M. 5](#): External Practicum Supervisor Evaluation
- [M. 6](#): Comprehensive Examination

Related Actions:

- A. 1: Revision of Graduating Student Interview
- A. 2: Inclusion of Supplementary Information
- A. 3: Catalog Revision

Outcome/Objective 3:

Academic and Clinical Experiences

Full Description:

Students will successfully engage in academic and clinical experiences that prepare them to evaluate and treat individuals who exhibit disorders of articulation, fluency, voice/resonance, receptive/expressive language, hearing, swallowing, cognitive aspects of communication, social aspects of communication, and communication modalities and demonstrate critical thinking skills at a level commensurate with entry-level certification and licensure in speech-language pathology

A Student Learning Outcome? Yes

Strategic Plan Initiatives:

- V-1: Life Science Health Collaborations

Institutional Priorities:

- COM-4: Enhance research, graduate education and technology-driven economic development

Accreditation Standards:

The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

Related Measures:

- M. 1: 3a. Embedded multiple-choice benchmark exam items
- M. 2: 3b. Individual Project evaluated with rubric (CMD)
- M. 3: 3c. Items on graduate exit interview.
- M. 4: 1d. PRAXIS Results
- M. 5: External Practicum Supervisor Evaluation
- M. 6: Comprehensive Examination

Related Actions:

- A. 1: Revision of Graduating Student Interview
- A. 3: Catalog Revision

Outcome/Objective 4:

Research and Ethics

Full Description:

Students will demonstrate knowledge and application principles of ethical practice, research design and analysis at a level sufficient to critique relevant research, evaluate assessment and intervention approaches, and understand and apply principles of evidence-based practice.

A Student Learning Outcome? Yes

Strategic Plan Initiatives:

- [V-1](#): Life Science Health Collaborations

Institutional Priorities:

- [COM-4](#): Enhance research, graduate education and technology-driven economic development

Accreditation Standards:

The American Speech-Language-Hearing Association (ASHA, <http://www.asha.org/default.htm>) ASHA is the professional, scientific, and credentialing association for more than 123,000 members and affiliates who are audiologists, speech-language pathologists, and speech, language, and hearing scientists

Related Measures:

- [M. 1](#): 4a. Embedded multiple-choice benchmark exam items
- [M. 2](#): 4b. Writing exercise evaluated with rubric (COMD 7
- [M. 4](#): 1d. PRAXIS Results
- [M. 5](#): External Practicum Supervisor Evaluation
- [M. 6](#): Comprehensive Examination

Related Actions:

- [A. 1](#): Revision of Graduating Student Interview
- [A. 3](#): Catalog Revision

MEASURES

Measure 1:

2a. Case Study evaluated with rubrics COMD 6320

Measure Full Description:

2a. Case study assignment evaluated with rubrics related to diagnosis and goal writing (COMD 6320)

Related Outcome(s)/Objective(s):

- [Obj. 2](#): Prevention, Assessment & Intervention

Target Level:

2a. 75% of students score above 80% on scoring rubrics

Findings:

93% of students met criterion. Target met.

Target Level Achievement: Met

Further Action Planned? No

Measure 1:

3a. Embedded multiple-choice benchmark exam items

Measure Full Description:

3a. Embedded multiple-choice benchmark exam items (COMD 6320)

Related Outcome(s)/Objective(s):

- [Obj. 3](#): Academic and Clinical Experiences

Target Level:

3a. 75% of students score above 80% on scoring rubrics

Findings:

88.5% of students scored above 80% on the set of items. Target met. Analysis of individual questions suggests areas where additional clarifying information should be incorporated in the class.

Target Level Achievement: Met

Further Action Planned? No

Measure 1:

4a. Embedded multiple-choice benchmark exam items

Measure Full Description:

4a. Embedded multiple-choice benchmark exam items (COMD 7303)

Related Outcome(s)/Objective(s):

- [Obj. 4](#): Research and Ethics

Target Level:

4a. 75% of students score 80% or above

Findings:

Course not offered in Fall '06

Further Action Planned?

No

Measure 1:

1a. Embedded essay exam item graded with rubric (C

Measure Full Description:

1a. Embedded essay exam item graded with rubric (COMD 7378)

Related Outcome(s)/Objective(s):

- [Obj. 1](#): Basic Processes

Target Level:

1a. 75% of students score above 80% on scoring rubrics.

Findings:

75.3% met criterion on total 3 essay questions on 2 exams. Target met.

Target Level Achievement:

Met

Further Action Planned?

No

Measure 2:

1b. Writing exercise evaluated with rubric (COMD 6

Measure Full Description:

1b. Writing exercise evaluated with rubric (COMD 6377)

Related Outcome(s)/Objective(s):

- [Obj. 1](#): Basic Processes

Target Level:

1b. same as 1a

Findings:

91% of students passed on the set of rubrics used to assess written responses.
Target achieved.

Target Level Achievement: Met

Further Action Planned? No

Measure 2:

2b. Embedded multiple-choice benchmark exam items

Measure Full Description:

2b. Embedded multiple-choice benchmark exam items (COMD 7303)

Related Outcome(s)/Objective(s):

- [Obj. 2:](#) Prevention, Assessment & Intervention

Target Level:

2b. 75% of students score 80% or above

Findings:

Course not offered in Fall `06.

Further Action Planned? No

Measure 2:

3b. Individual Project evaluated with rubric (COMD

Measure Full Description:

3b. Individual Project evaluated with rubric (COMD 6221)

Related Outcome(s)/Objective(s):

- [Obj. 3:](#) Academic and Clinical Experiences

Target Level:

3b. same as 3a

Findings:

100% of students met criterion on the individual treatment plan evaluated with rubrics.

Target Level Achievement: Met

Further Action Planned? No

Measure 2:

4b. Writing exercise evaluated with rubric (COMD 7

Measure Full Description:

4b. Writing exercise evaluated with rubric (COMD 7378)

Related Outcome(s)/Objective(s):

- [Obj. 4:](#) Research and Ethics

Target Level:

4b. 75% of students score above 80% on scoring rubrics

Findings:

89% and 100% of students scored above 80% on the scoring rubrics on the 2 assessed papers. Target met.

Target Level Achievement: Met

Further Action Planned? No

Measure 3:

3c. Items on graduate exit interview.

Measure Full Description:

3c. Items on graduate exit interview.

Related Outcome(s)/Objective(s):

- [Obj. 3:](#) Academic and Clinical Experiences

Target Level:

3c. 80% of students report meeting goal

Findings:

Exit interviews conducted annually in April. No data available. Faculty will revise questions to target student opinions related to program learning objectives.

Further Action Planned? Yes

Measure 3:

2c. Individual Project evaluated with rubric (COMD

Measure Full Description:

2c. Individual Project evaluated with rubric (COMD 6222)

Related Outcome(s)/Objective(s):

- [Obj. 2:](#) Prevention, Assessment & Intervention

Target Level:

2c. 75% of students score above 80% on scoring rubrics

Findings:

Course not offered in Fall 2006.

Further Action Planned?

No

Measure 3:

1c. Embedded multiple-choice benchmark exam items

Measure Full Description:

1c. Embedded multiple-choice benchmark exam items (COMD 6222, 6221)

Related Outcome(s)/Objective(s):

- [Obj. 1](#): Basic Processes

Target Level:

1c. 75% of students score 80% or above

Findings:

75% of students passed items. Target met. Instructor has identified several areas where more in-depth information on vocal anatomy and physiology must be learned. COMD 6222 not offered in Fall `06.

Target Level Achievement:

Met

Further Action Planned?

Yes

Measure 4:

1d. PRAXIS Results

Measure Full Description:

1d. Sub-area PRAXIS results.

Related Outcome(s)/Objective(s):

- [Obj. 1](#): Basic Processes
- [Obj. 2](#): Prevention, Assessment & Intervention
- [Obj. 3](#): Academic and Clinical Experiences
- [Obj. 4](#): Research and Ethics

Target Level:

1d. At least 75% of the students score in the top 75% in sub-areas relevant to the learning objective.

Findings:

Criterion was met in all areas: Basic Human Comm. Processes: 91.3%
Phonological and Language Disorders: 91.3% Speech Disorders: 91.3%
Neurogenic Disorders: 100% Clinical Management: 91.3% Prof. Issues,
Psychometrics, Research: 78.3% Results demonstrate the students perform
above average compared to national norms on a standardized assessment of
knowledge in speech-language pathology.

Target Level Achievement: Met

Further Action Planned? No

Measure 5:

External Practicum Supervisor Evaluation

Measure Full Description:

Practicum supervisors at external sites complete form to evaluate students' ability to apply knowledge to clinical cases.

Related Outcome(s)/Objective(s):

- [Obj. 1:](#) Basic Processes
- [Obj. 2:](#) Prevention, Assessment & Intervention
- [Obj. 3:](#) Academic and Clinical Experiences
- [Obj. 4:](#) Research and Ethics

Target Level:

On each learning objective, 80% of students achieve a rating of "consistent" or better.

Findings:

97.5 to 100% of students achieved a rating of consistent or better on each learning objective. Target met.

Target Level Achievement: Met

Further Action Planned? No

Measure 6:

Comprehensive Examination

Measure Full Description:

Questions on the Comprehensive Examination evaluated with rubrics related to student learning goals.

Related Outcome(s)/Objective(s):

- [Obj. 1:](#) Basic Processes
- [Obj. 2:](#) Prevention, Assessment & Intervention
- [Obj. 3:](#) Academic and Clinical Experiences
- [Obj. 4:](#) Research and Ethics

Target Level:

80% of student responses will be rated "mastered" on each learning objective.

Findings:

27 of 29 (93%) of the students taking the comprehensive examination showed mastery of the 4 program learning objectives.

Target Level Achievement: Met

Further Action Planned? Yes

ACTIONS

Action 1:

Revision of Graduating Student Interview

Full Description

Faculty will revise interview questions to target student self-evaluation of attainment of program learning objectives.

Related Objectives:

- [Obj. 1:](#) Basic Processes
- [Obj. 2:](#) Prevention, Assessment & Intervention
- [Obj. 3:](#) Academic and Clinical Experiences
- [Obj. 4:](#) Research and Ethics

Related Measures:

- [M. 3:](#) 3c. Items on graduate exit interview.

Person/group responsible for the action Program Head

Target date to implement the action April 2007

Priority Med

Action 2:

Inclusion of Supplementary Information

Full Description

Our assessment indicated that the program achieved criterion on all measures. However, faculty noticed some weakness in student performance, for example, related to anatomy and physiology of the speech production mechanisms in COMD 6221 goal writing and the development of activities in COMD 6320; and add additional material on alternative evidence-based practices in COMD 7378. Faculty teaching these courses will be responsible for reviewing the content and method of presentation of materials in an effort to enhance student learning in area in which current student performance is weaker than expected.

Related Objectives:

- [Obj. 1](#): Basic Processes
- [Obj. 2](#): Prevention, Assessment & Intervention

Related Measures:

- [M. 2](#): 2b. Embedded multiple-choice benchmark exam items

Person/group responsible for the action

Course instructors

Target date to implement the action

Fall 2007 or when course next offered.

Priority

Med

Action 3:

Catalog Revision

Full Description

The biennial catalog preparation provides the opportunity to use program assessment data and faculty input to to strengthen and update course content, sequence, and requirements. The faculty will meet periodically, to review the program and implement changes which will take effect with the publication of the revised university catalog.

Related Objectives:

- [Obj. 1](#): Basic Processes
- [Obj. 2](#): Prevention, Assessment & Intervention
- [Obj. 3](#): Academic and Clinical Experiences
- [Obj. 4](#): Research and Ethics

Person/group responsible for the action

COMD Program Faculty

Target date to implement the action Fall 2007

Priority High

ANALYSIS

Strength

The assessment findings showed that the students in the program achieved or exceeded criterion in each learning goal. This suggests that our ongoing system of program improvement has been effective. The measures we employed included direct performance on essay and multiple choice examinations, application of learning through externally rated performance in clinical practicum, and performance on a national standardized test of knowledge in the field of speech-language pathology (PRAXIS.) These results give us confidence that students are attaining the knowledge and skills commensurate with entry into professional practice in speech-language pathology as stated in our mission.

Exit interviews with graduating students indicated a need for coursework and additional practicum opportunities in bilingual speech-language pathology. In response, we have employed a lecturer to teach a new course in Bilingual Speech-Language Pathology in Spring 2007 and have actively worked with bilingual therapists in the Richardson and Plano ISD's to accept more students for practicum sites serving children who are bilingual.

Attention Needed

Planning for the coming reaccreditation site visit by the American Speech-Language-Hearing Association and the University's SACS reaffirmation preparations revealed that we did not have truly systematic means of evaluating student learning and program efficacy. These external pressures have led the faculty to formulate clearer student learning goals and to develop a continuous assessment and review process to identify program gaps and develop action plans to enhance overall program quality. The process, while now in place requires further data collection and continued scrutiny to assure that actions taken are based on valid data.

ANNUAL REPORT

Executive Summary

The masters program in Communication Disorders is nationally one of the largest, if not the largest speech-language pathology program in the country. It is ranked by U.S. News and World Report 17th out of approximate 325 graduate speech-language pathology programs. Admission to the program is increasingly competitive with the admission running about 35% of applicants and a yield of 75-

80% acceptances. The program has earned a strongly positive reputation statewide and nationally which has benefited recruiting and employment of graduates. The program routinely graduates 100% of its entering students and 100% are employed within 2 months of graduation. About 95% of graduating students pass the PRAXIS examination on their first try and after completing their clinical fellowship are eligible for national certification in speech-language pathology awarded by the American Speech-Language-Hearing Association (ASHA.)

Compliance with ASHA accreditation standards has required continuous evaluation of student performance to assure the readiness of graduates to enter the profession. ASHA has published a list of knowledge and skills competencies students are expected to attain before entering the field and these have served as the foundation for the program learning goals. While the program has been monitoring student performance to assure the adequacy of each student's preparation, this fall was the faculty's first direct attempt to evaluate the program strengths and weaknesses through assessment of student achievement of program learning goals. The results of the program assessment were strongly positive and indicated that students exceeded criterion performance on each measure of program learning goals. The measures included direct assessment of student performance within core courses using embedded multiple-choice questions and essay questions graded with a rubric, student responses to comprehensive examination assessed using rubrics, external practicum supervisor evaluation of student performance using an evaluation form keyed to program learning goals, and student performance in sub-areas of the nationally administered PRAXIS examination. The findings, collated and analyzed from the various sources, were presented to faculty at a general meeting in order to develop an action plan for continuous improvement.

While the findings regarding student learning were strongly positive, the course-based assessments helped individual instructors detect specific problems in the students' acquisition of knowledge of course material. This provided useful feedback to instructors regarding ways they might strengthen their courses, through supplemental background information or a shift in the balance of time devoted to particular topics. It was agreed that instructors would use the information as "pretest" data for course improvement in the next cycle of course offerings. The program also intends to undergo a more thorough analysis of course content and sequence in conjunction with the biennial preparation of the graduate catalog which will be ongoing over the next year.

The overall assessment results appear to support our impression and those of the professional field that the Communication Disorders program is meeting its mission in preparation of students for entry to the practice of speech-language pathology. However, the program will continue to refine its assessment techniques and seek additional valid measures to better triangulate the findings regarding student achievement of program learning goals.

Contributions to the Institution

The faculty in the School of Behavioral and Brain Sciences are unusually broad in the scope of their interests, subject populations studied, level of analysis employed in their work and the methodologies utilized. The diversity of these endeavors,

coupled with the geographic proximity of two of the School's facilities to Southwestern Medical Center, has made the School a natural collaborator with other units of the University, the Medical School, as well as other institutions around the country. Examples of these efforts include investigations on developing new hearing technologies, combining efforts of surgeons, hearing, language and speech researchers and electrical engineers; developing new prostheses, engaging neuroscientists, computer science and electrical engineering faculty and neurosurgeons, and investigations on long-term consequences of pediatric brain injury, joining cognitive neuroscientists, pediatricians and virtual world engineers. In addition to these research partnerships, the School provides extensive direct service to the community through its various clinical programs. This community involvement has resulted in significant levels of philanthropic support for the School's programs.

Highlights

New Faculty hires-The past two years has seen significant additions to our family:

Dr. John Hart – Cognitive Neuroscience

Dr. Tom Campbell – Speech Pathology, Director Callier Center

Dr. Christine Dollaghan – Speech Pathology

Dr. Christa McIntyre – Neuroscience

Dr. Mandy Maguire – Language Development

Dr. Shayla Holub – Social Development

Dr. Candice Mills – Social Development

Dr. Daniel Krawczyk – Cognitive Neuroscience

Dr. Bart Rypma – Cognitive Neuroscience

Dr. Deborah Wiebe – Medical Psychology

Significance of hires - These hires, in various ways, advanced several important School and Institutional objectives:

1) develop the joint brain-imaging Center with UT Southwestern and UT Arlington

(Hart, Krawczyk, Maguire, Rypma)

2) develop the Center for Brain*Health* (Hart, Krawczyk, Maguire, McIntyre, Mills, Rypma)

3) develop strong new leadership and programs at the Callier Center (Campbell, Dollaghan, Maguire)

4) strengthen faculty range for proposed Center for Children and Families (Campbell, Dollaghan, Holub, Maguire, Mills)

Teaching Activities

Number of students who graduated (by level and total)

28 M.S. students in Fall 2006

Number of students in each degree program

81 new M.S. students entered in August

Number of new majors

53 in Fall 2006

Grants related to teaching

None

Major curricular changes

None

New programs or certificates

None

Updates or additions to classroom technology

All classrooms at Callier-Dallas and Callier-Richardson have videolink technology. All classrooms now have installed LCD projectors and laptop-based systems for video presentations

Teaching collaborations (internal and external)

None

Retention efforts and documented success(es)

Retention rate remains about 100%. Not an issue with this program

Service learning or community-based learning courses

All students engage in clinical practicum and most have community-based placements. However, these are not typically considered service-learning projects.

Student engagement initiatives and activities

The local chapter of the National Student Speech-Language-Hearing Association holds regular events including speakers, workshops on resume writing and job application procedures, charity fund-raisers, and parties for graduating students.

Faculty development activities

All faculty are award funds for travel to professional meetings and workshops of their choice.

Teaching recognition awards

None

Student achievement awards

None

Research and Scholarly Activities

The School conducts research both within and across its three subsuming divisions: Psychological Sciences, Communication Sciences and Cognition and Neuroscience. Additionally School faculty conduct collaborative projects with institutions around the country, most notably UT Southwestern Medical Center, but also such institutions as Johns Hopkins, University of California at San Francisco, University of Wisconsin, Baylor Medical Center, University of Dijon, and University of Hamburg among numerous others. Collaborative projects with industry provide a small but growing part of the School's research programs, particularly in the area of bioengineering. During 2006 research on cochlear implants, hearing aids, neural stimulation and neural interfaces for prostheses were conducted. School faculty generated approximately 100 scholarly articles, over 100 presentations at national conferences, 20 chapters in edited volumes and 10 books. Faculty were featured speakers at several national or university meetings. The School also hosts its own speaker series to enhance the scholarly life of its programs. The central vehicle for this is the School's colloquium series which hosted 6 nationally prominent speakers during 2006. The Callier Center's Bruton Conference also brings prominent speakers to campus, as well as providing outreach to the community. Similarly the Center for Brain

Health's "The Brain: An owner's Guide" disseminates current research information to the lay public.

Grants

PI	Funding Agency	Title	Total Award
Assmann	NSF	Perception of Frequency-Shafted Speech	223,418
Atzori	NIH/NIDCD	Acetylcholine and Dopamine Modulation in Auditory Cortex	1,223,284
Bharadwaj	NIH	Speech Production in Children with Cochlear Implants	200,310
Buckley	NIH	Cross-modal Plasticity in Pre-Lingually Deaf Children	83,490
Chapman	Baylor	Neurobehavioral Outcome of Head Injury in Children	396,968
Chapman	Baylor	Neurobehavioral Outcome of Head Injury in Children	45,587
Chapman	NIH	Genetic Factors in Outcome from Traumatic Brain	87,627
Dodd	DEPT OF ED	Projects FAMILY 2001+: Facilitating and Mentoring Interdisciplinary Learning for the Years 2001+	1,206,914
Geers/Tobey	NIH/NIDCD	Long-term Outcomes of Cochlear Implantation in Early Childhood (Shannon Award)	100,000
Golden/Perwaiz	NSF	Doctoral Dissertation Research: Statistical Models of Hypertext Comprehension	10,560
Holub	Timberlawn Foundation	The Role of Parents' Restrictive Feeding Practices and General Parenting Style in Children's Eating	27,357.00
Jerger, S.	NIH	Auditory Processing in Hearing Impaired Children	1,783,366
Katz, W.	Veteran's Affairs	Treatment of Apraxia of Speech Following Stroke	77,000
Kilgard	JAMES S MCDONNELL	Brain Plasticity and Neuro-Rehabilitation	446,000
Kilgard	NIH	Cortical Plasticity and Processing of Speech Sounds	224,250
Kilgard	NIH Supplement	Cortical Plasticity and Processing of Speech Sounds	41,711
King/Hart	UNCF Merck Foundation	Quantification of Cortical Atrophy by Fractal Dimension	85,000
Lomber	NIH	Cerebral Organization Following Cochlear Implant	224,250

Lomber	NIH	Dev of fMRI Compatible Reversible Deactivation	380,290
Lomber	NSF	Cerebral Control of Aurally-Mediated Behavior	451,179
Lomber	NSF supplement	Cerebral Control of Aurally-Mediated Behavior	10,000
Malhotra	NIH	Cerebral Control of Sound Localization	31,069
Moore	UTSWMCD	Personality Theories and Dynamics	23,500
O'Toole	ONR	Evaluating Face and Person Recognition Algorithms with Human Benchmarks	325,545
O'Toole	ONR	Face recognition performance: Humans vs Machines	175,000
Olness	NIH/NIDCD	Narratives in African Americans & Caucasians with Aphasia	202,500
Owen	Child Care Group	Relationship-Centered Child Care & Children's Dev	82,012
Owen	Timberlawn	Relationship-Centered Child Care	37,165
Owen	NIH/NICHD	Study of Early Child Care and Youth	42,500
Roeser	CALLIER FN	Service, Training and Research for Cochlear Implant Children	795,898
Stillman	OHSU	Validation of Evidence-Based Assessment Strategies to Promote Achievement in Children who are Deaf-Blind	190,000
Thompson	RBC Life Sciences	Nootropic Effects of Microhydrin and Microhydrin-Plus in Aging	101,132
Tobey	UT AUSTIN	Motor Control of Serial Organization of Speech	138,041
Tobey	JOHN HOPKINS U	Lang Outcomes in Pediatric Cochlear Implantation	1,531,219
Tobey	MED EI CORP	SPECT rCBF in Adult Cochlear Implant Users	12,000
Underwood	NIH	Social Aggression: Precursors and Outcomes	1,470,400
Underwood	NIH	Social Aggression: Origins, Development and Outcomes	597,320

Public/Community Service