
Sunset Evaluation Update: Speech Pathologists and Audiologists

A Report to the
Governor
and the
Legislature of
the State of
Hawaii

Report No. 00-03
January 2000



THE AUDITOR
STATE OF HAWAII

The Office of the Auditor

The missions of the Office of the Auditor are assigned by the Hawaii State Constitution (Article VII, Section 10). The primary mission is to conduct post audits of the transactions, accounts, programs, and performance of public agencies. A supplemental mission is to conduct such other investigations and prepare such additional reports as may be directed by the Legislature.

Under its assigned missions, the office conducts the following types of examinations:

1. *Financial audits* attest to the fairness of the financial statements of agencies. They examine the adequacy of the financial records and accounting and internal controls, and they determine the legality and propriety of expenditures.
2. *Management audits*, which are also referred to as *performance audits*, examine the effectiveness of programs or the efficiency of agencies or both. These audits are also called *program audits*, when they focus on whether programs are attaining the objectives and results expected of them, and *operations audits*, when they examine how well agencies are organized and managed and how efficiently they acquire and utilize resources.
3. *Sunset evaluations* evaluate new professional and occupational licensing programs to determine whether the programs should be terminated, continued, or modified. These evaluations are conducted in accordance with criteria established by statute.
4. *Sunrise analyses* are similar to sunset evaluations, but they apply to proposed rather than existing regulatory programs. Before a new professional and occupational licensing program can be enacted, the statutes require that the measure be analyzed by the Office of the Auditor as to its probable effects.
5. *Health insurance analyses* examine bills that propose to mandate certain health insurance benefits. Such bills cannot be enacted unless they are referred to the Office of the Auditor for an assessment of the social and financial impact of the proposed measure.
6. *Analyses of proposed special funds* and existing *trust and revolving funds* determine if proposals to establish these funds and existing funds meet legislative criteria.
7. *Procurement compliance audits* and other *procurement-related monitoring* assist the Legislature in overseeing government procurement practices.
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9. *Special studies* respond to requests from both houses of the Legislature. The studies usually address specific problems for which the Legislature is seeking solutions.

Hawaii's laws provide the Auditor with broad powers to examine all books, records, files, papers, and documents and all financial affairs of every agency. The Auditor also has the authority to summon persons to produce records and to question persons under oath. However, the Office of the Auditor exercises no control function, and its authority is limited to reviewing, evaluating, and reporting on its findings and recommendations to the Legislature and the Governor.



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OVERVIEW

Sunset Evaluation Update: Speech Pathologists and Audiologists

Report No. 00-03, January 2000

Summary

The Legislature, through Act 254, Session Laws of Hawaii 1999, directed the State Auditor to conduct a sunset evaluation of the regulatory program for speech pathology and audiology. The Legislature specifically requested an assessment of whether the regulation of speech pathologists and audiologists should be continued or repealed, and, if continued, whether it would be more efficient and cost effective to regulate these occupations through a regulatory board, the Department of Commerce and Consumer Affairs, or some other agency or mechanism.

Speech pathology and audiology are interrelated disciplines that deal with disorders of speech, language and hearing. Both speech pathologists and audiologists specialize in the prevention, diagnosis, and treatment of communication disorders, including speech, language, hearing, and balance problems. Speech pathologists and audiologists work directly with patients in a variety of settings, which range from private practice to such institutions as hospitals, clinics, health care organizations, government agencies, and schools.

Currently, 47 states regulate audiologists and 44 regulate speech pathologists. Both professions have been regulated in Hawaii since 1974 through a Board of Speech Pathology and Audiology. As of March 1999, there were 341 speech pathologists and 50 audiologists licensed to practice in Hawaii; a majority of them were employed by the state Departments of Education and Health.

Our last sunset evaluation of speech pathologists and audiologists, conducted in 1987, found that the two professions posed minimal risk to the public and did not warrant state licensure. However, our current study found that the practices of speech pathology and audiology require specialized skills and technical knowledge and that potential harm exists from incompetently performed assessments and/or treatment procedures, errors of omission, and misdiagnosis. Furthermore, since our previous report, the scopes of practice for speech pathologists and audiologists have substantially expanded. Both professions now perform a number of invasive procedures that pose risks ranging from patient discomfort to electrical shock and even death.

The autonomy of a profession's practitioners is also a factor in the amount of harm the profession can impose upon consumers. Autonomy can be seen in the degree of authority and responsibility practitioners have in making decisions about the delivery of services. In Hawaii, speech pathologists and audiologists are not supervised. In addition, the two professions provide direct clinical services to patients and make independent judgments.

Our evaluation also examined the need for licensure (or *right-to-practice* regulation) as opposed to a lesser form of state regulation. We found that because of their high potential for causing harm to the public, licensure is the most appropriate form of regulation for speech pathologists and audiologists in Hawaii. Only through licensure will unqualified persons be restricted from practicing the professions.

Finally, we considered alternatives to state regulation and evaluated the cost effectiveness of such regulation. We concluded that a professional regulatory board within the Department of Commerce and Consumer Affairs is the most appropriate means of administering a licensure program. The expertise afforded by a professional board composed of practitioners, public members, and medical doctors is the most efficient and effective means of implementing the regulation of speech pathologists and audiologists in Hawaii.

Recommendations and Response

We recommended that the Legislature continue the regulation of speech pathologists and audiologists. We also recommended that the Department of Commerce and Consumer Affairs' Professional and Vocational Licensing Division continue to administer the licensing of speech pathologists and audiologists with the aid of a professional board.

In its response, the Board of Speech Pathology and Audiology noted strong support for our recommendations to retain regulation and the board. The Department of Commerce and Consumer Affairs did not submit a response.

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Submitted by

THE AUDITOR
STATE OF HAWAII

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Foreword

Act 254 of the Regular Session of 1999 directed the State Auditor to conduct a sunset evaluation of the regulatory program for speech pathology and audiology. The act asked us to report on whether the regulation of speech pathologists and audiologists should be continued or repealed, and, if continued, whether it would be more efficient and cost effective to regulate these occupations through a regulatory board, the Department of Commerce and Consumer Affairs, or some other agency or mechanism. This report presents our findings and recommendations.

We acknowledge the cooperation of the Department of Commerce and Consumer Affairs, the Board of Speech Pathology and Audiology, and the many others whom we contacted during the course of our evaluation.

Marion M. Higa
State Auditor

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Chapter 1

Introduction

During its 1999 Regular Session, the Legislature found that, where appropriate, “government bureaucracy and red tape may be reduced by deregulating professions and vocations.”¹ As a result, through Act 254, 1999 Session Laws of Hawaii, the Legislature directed the State Auditor to conduct a sunset evaluation of the regulatory program for speech pathology and audiology. The act requires the Auditor to report on whether the regulation of speech pathologists and audiologists should be continued or repealed and to make recommendations on what type of regulation would be most efficient and cost effective. This sunset evaluation report responds to Act 254.

Background on Speech Pathologists and Audiologists

Speech pathologists study human communication and its developed or acquired disorders. Audiologists study human hearing and balance-related disorders. Both specialize in the prevention, diagnosis, and treatment of communication disorders, including speech, language, and hearing problems.

Occupational characteristics

Speech pathologists and audiologists work directly with patients in a variety of settings. These range from private practice to institutions such as hospitals, clinics, health care organizations, government agencies, and schools. In 1987, there were 294 licensed speech pathologists and audiologists in Hawaii. A majority of practitioners were employed in the public sector—primarily by the state Departments of Education and Health, but also by the University of Hawaii and the federal government. Today, 341 speech pathologists and 50 audiologists are licensed to practice in Hawaii; three-quarters of them are employed by the state Departments of Education and Health.

Speech pathologists

Speech pathologists assess, treat, and help to prevent a variety of speech, language, cognitive communication, voice, swallowing, fluency, and other related disorders. Such disorders include:

- difficulties making clear speech sounds;
- speech rhythm and fluency problems (such as stuttering);
- voice quality problems (such as inappropriate pitch or harsh voice);

- problems understanding and producing language (such as aphasia);
- cognitive communication impairments (such as attention, memory and problem solving disorders); and
- oral motor problems causing eating and swallowing difficulties.

Many speech pathologists work in medical settings where they see older adults with aphasia; young and old adults with head trauma; individuals with head and neck cancers who have had parts of their speech and voice mechanisms removed; and young children with neurological disorders or cleft palates. Exhibit 1.1 below describes some of the clinical roles of medical speech pathologists.

Exhibit 1.1

Examples of Clinical Roles of Medical Speech Pathologists

Speech pathologists in medical settings:

1. Assess and treat
 - aphasia (inability to speak due to neurological impairment)
 - dysarthria (abnormal articulation due to muscular control disturbances resulting from central or peripheral nervous system damage)
 - apraxia (inability to perform complex muscular movements, such as speaking)
 - right-hemisphere dysfunction
 - cognitive-communicative disorders associated with brain injuries, Alzheimer's disease, and other dementias
 - dysphagia (difficulty in swallowing) and other oral-pharyngeal function disorders
 - speech, language and swallowing disorders associated with cleft palate or other oral and oropharyngeal anomalies
 - organic and nonorganic vocal pathologies
 - fluency disorders.
 2. Provide preoperative counseling, postsurgical evaluation and selection of communication methods, and rehabilitation for persons who have undergone oral, velopharyngeal, or laryngeal surgery.
 3. Participate in evaluating, selecting, and using voice prostheses in persons with a tracheostomy.
-

Source: *Professional Issues in Speech-Language Pathology and Audiology: A Textbook*

Audiologists

Audiologists identify, assess, and manage auditory, balance and other neural system disorders. They measure the loudness at which a person begins to hear sounds, the ability to distinguish between sounds, and the nature and extent of hearing loss and balance problems.

Approximately 20 percent of audiologists nationwide work in medical settings where they often evaluate patients who are in the initial or most serious stages of disease or injury. In hospitals with neonatal intensive care units, audiologists screen the hearing of high-risk newborns using emerging techniques like otoacoustic emissions. Exhibit 1.2 below describes some of the clinical roles of medical audiologists.

Exhibit 1.2 Examples of Clinical Roles of Medical Audiologists

Audiologists in medical settings:

- Evaluate and diagnose peripheral and central auditory nervous system dysfunctions.
 - Assess, select, dispense, fit, and monitor hearing aid and assistive listening devices and systems.
 - Assess and monitor the vestibular system.
 - Assist in conducting special tests and procedures for medical diagnoses and monitoring (e.g., neurophysiologic intraoperative monitoring, and high-frequency ototoxicity tests).
 - Conduct audiologic assessments of central auditory processing.
 - Participate in assessing, selecting, and placing cochlear implants.
-

Source: *Professional Issues in Speech-Language Pathology and Audiology: A Textbook*

Regulatory program in Hawaii

Speech pathologists and audiologists have been regulated in Hawaii since 1974 under Chapter 468E, Hawaii Revised Statutes (HRS). The purpose of regulation is to ensure that “only qualified persons be allowed to practice in the fields of speech pathology and audiology.”² Chapter 468E defines the practice of speech pathology as

the application of principles, methods, and procedures of measurement, prediction, evaluation, testing, counseling, consultation, and instruction related to the development and disorders of speech and related language and hearing for the purpose of modifying speech and related language and hearing disorders.³

The practice of audiology is similarly defined, but with an emphasis on hearing rather than speech disorders.

Both occupations are regulated by a seven-member Board of Speech Pathology and Audiology (board) established under Section 468E-6, HRS. The board consists of two licensed speech pathologists, two licensed audiologists, and three public members—one of whom is a licensed otorhinolaryngologist (or ear, nose and throat doctor). Members serve for terms of three years each. The board is administratively attached to the Department of Commerce and Consumer Affairs (department), where the Professional and Vocational Licensing Division provides an executive officer to administer the board's day-to-day operations.

Under the statute, to be eligible for licensure by the board as a speech pathologist or audiologist, an applicant must:

- 1) Possess at least a master's degree or its equivalent in the area of speech pathology, audiology from an educational institution recognized by the board;
- 2) Submit evidence of eligibility for meeting the requirements of the American Speech-Language Hearing Association (ASHA) for its certificate of clinical competence in speech pathology, audiology, or both (though ASHA membership is not required); and
- 3) Pass a written examination approved by the board.

The law is not intended to restrict the practice of licensed physicians, licensed hearing aid dealers, others engaged in the occupation for which they are licensed in the State, and federally employed persons. Also not restricted are persons studying for a degree in speech pathology or audiology at a college or university or who are fulfilling the clinical experience requirements for the clinical fellowship year for ASHA certification.

Employees of state and local governments are not excluded from the requirements of licensure, with one exception. Practitioners who were employed by the State or a county as speech pathologists or audiologists on or before October 1, 1981 and continue to be so employed are

statutorily deemed in compliance with the requirements of Chapter 468E, HRS, and do not need to be licensed. There are currently 15 such practitioners remaining in the state.

Licenses must be renewed every two years. The department charges a \$25 fee for applications, \$50 for biennial renewals, and various other administrative costs.

***Previous report findings
and recommendations***

Our last sunset evaluation of speech pathologists and audiologists was conducted in 1987 (Report No. 87-23). In it, we found that the two occupations posed little harm to the public and recommended that Chapter 468E, HRS, be allowed to expire as scheduled. Specifically, we found that:

1. The practices of speech pathology and audiology posed little harm to the public's health, safety or welfare. There was no documented evidence of harm from services provided by licensed speech pathologists or audiologists, and employers and health insurance programs in the private sector provided assurance of protection for consumers.
2. The State's licensing requirements duplicated the requirements for ASHA certification.
3. As a result of the duplicative licensing requirements, the board served no meaningful function.
4. Both the board's rules and statutory provisions covering the exemption of state and local government practitioners were overly restrictive. Some of the requirements for licensure were unnecessary.
5. The processing of licensure applications was slow.⁴

In 1987 we recommended that the following actions be taken:

1. Chapter 468E, HRS, be allowed to expire as scheduled on December 31, 1988.
2. If the Legislature decided to reenact Chapter 468E, that it consider:
 - a) abolishing the licensing board and requiring speech pathologists and audiologists to register with the Department of Commerce and Consumer Affairs by presenting evidence of ASHA certification;

- b) allowing eligible local and state government practitioners deemed in compliance to continue to practice for as long as they remained in government service; and
 - c) deleting the requirement for good moral character.
3. If the Board of Speech Pathology and Audiology were continued, that it:
- a) amend its rules to clarify the provisions covering government practitioners; and
 - b) remove the provision for a personal interview and the requirement for letters of recommendation.
4. The licensing division of the Department of Commerce and Consumer Affairs review its application and licensing procedures with the objective of reducing the time lag in the granting of licenses.⁵

Several recommendations have been implemented since our 1987 report:

- Practitioners who are “deemed in compliance” with the requirements of Chapter 468E, HRS, are now permitted to continue to practice without a license while they remain continuously employed in local government service for that purpose.
- The administrative rules covering government practitioners have been revised in accordance with the statutory changes described above.
- The requirements regarding good moral character and a personal interview have been deleted.

Objectives of the Evaluation

1. Determine whether the regulation of speech pathologists and audiologists is warranted.
2. Determine the most appropriate regulatory mechanism for speech pathologists and audiologists.
3. Make recommendations as appropriate.

Scope and Methodology

In this evaluation, we focused on the need to regulate speech pathologists and audiologists and assessed the most appropriate regulatory mechanism for the two professions. Unlike other sunset evaluations, we did not assess the appropriateness of current regulatory requirements for protecting the public or whether the regulatory program is being implemented effectively and efficiently.

The period under review covered from 1987 to the present, but we primarily focused on the past five years (1994 - 1999). During our evaluation, we reviewed literature on speech pathologists and audiologists and their regulation in Hawaii and other states. We examined complaints filed at the Regulated Industries Complaints Office, the Office of Consumer Protection, the Office of the Ombudsman, the Better Business Bureau, and the Departments of Health and Education. We reviewed files, correspondence, and other documentation pertaining to the regulatory operations of the Board of Speech Pathology and Audiology at the Department of Commerce and Consumer Affairs' Professional and Vocational Licensing Division. We examined Chapters 468E and 26H, HRS, and relevant administrative rules.

We also obtained information from national and local organizations of speech pathologists and audiologists. We conducted interviews with representatives and practitioners of the two occupations, Department of Commerce and Consumer Affairs staff, Board of Speech Pathology and Audiology members, staff from other government agencies, consumers, employers, and insurers.

Our work was performed from May 1999 through November 1999 in accordance with generally accepted government auditing standards.

Chapter 2

Continued Licensure With a Board is Warranted

Our last sunset evaluation of speech pathologists and audiologists, conducted in 1987, found that the professions of speech pathology and audiology posed minimal risk to the public and did not warrant state licensure. Since then, we found that the scopes of practice for the two occupations have expanded and practitioners' contact with patients is often unsupervised. Speech pathologists and audiologists currently perform or assist in procedures that have a significant potential for causing harm to the public if practiced incompetently. Furthermore, the specialized technical and scientific knowledge required of the professions warrant continued licensure and administration by the Board of Speech Pathology and Audiology.

Summary of Findings

1. The State should continue regulating speech pathologists and audiologists to protect the public's health, safety and welfare.
2. Speech pathologists and audiologists should be licensed and administered by a professional board within the Department of Commerce and Consumer Affairs.

The State Should Continue to Regulate Speech Pathologists and Audiologists

Chapter 468E, HRS, should continue to regulate speech pathologists and audiologists. Because of their evolving scopes of practice, the degree of technical expertise required, and autonomous nature of the professions, the two professions have a significant potential to harm the public's health, safety and welfare if practiced incompetently.

A potential for harm exists

Although there is no evidence that speech pathologists or audiologists have caused injury in Hawaii within the past five years, continued regulation is warranted based on their extensive, unsupervised contact with patients and the technical knowledge needed for safe treatment. We found that the practices of speech pathology and audiology require specialized skills and knowledge and that potential harm exists from incompetently performed assessments and/or treatment procedures, errors of omission, and misdiagnosis.

As diagnosticians, speech pathologists and audiologists must be aware that underlying the disorder being assessed or treated there may be an undiagnosed medical condition requiring attention. It is paramount that

they have the appropriate skills, training and education to know how certain medical conditions affect speech, language and hearing. For example, speech pathologists should know that persistent hoarseness, even mild sporadic hoarseness, can frequently be the only early warning of serious disease such as laryngeal cancer. Audiologists must be very familiar with otitis media (infection of the middle ear cavity), one of the most common diseases in childhood. Symptoms of acute otitis media include swelling, redness, and bleeding in the middle ear. If the condition is not recognized, inflammation of the mastoid (a projection of the temporal bone behind the ear) can cause meningitis and sometimes death.

In addition, all health care professionals who clinically manage patients need to be aware of universal precautions that prevent the transmission of serious infectious diseases. A number of viruses and bacteria can transmit potentially lethal diseases—such as hepatitis, meningitis, influenza, pneumonia, staphylococcus and streptococcus infections, and tuberculosis—between practitioners and patients during audiological or speech pathological examinations if sterile procedures are not followed. In addition, Hawaii is a particularly hospitable environment for fungus to grow in common water preparations (which are frequently squirted into the ear canals during audiological examinations).

As illustrated in Exhibit 2.1, an unskilled practitioner may also dispense poor advice, cause a patient to incur unnecessary financial expense, or cause him/her to choke, aspirate, and even die.

Scope of practice is expanding

Since regulation of speech pathologists and audiologists was first enacted in the early 1970s, new technologies have allowed for more specialized diagnostic and treatment modalities, including invasive procedures. We confirmed that technological, clinical, and scientific advances in the field have evolved at a rapid pace. Since our previous report in 1987, the American Speech-Language Hearing Association (ASHA) approved and published new policies that substantially expanded the scopes of practice of speech-language pathologists and audiologists to include:

- **External auditory canal examination and cerumen management.** Cerumen (wax) removal, an invasive procedure historically performed by physicians, is now within the scope of practice of audiologists in many states. Impacted cerumen can cause significant conductive hearing loss. Removing it without proper equipment or expertise can cause laceration to the canal or the ear drum and a great deal of discomfort to the patient.

**Exhibit 2.1
Potential Harms Posed by Speech Pathologists and Audiologists**

ERROR	RESULT
Risks Due To Assessment Or Treatment Procedures	
<i>Audiology</i>	
<ol style="list-style-type: none"> 1. Improper insertion of objects in the ear such as ear molds, impedance probes, and probe tube microphones. 2. Incorrect usage of impedance in an ear with an open tympanic membrane and a perilymphatic fistula. 3. Improper insertion of needle electrodes for electrophysiological testing. 	<ol style="list-style-type: none"> 1. Damage to the ear canal and tympanic membrane. Inaccurate test results leading to misdiagnosis. 2. Meningitis, possible death. 3. Extension of needle into the brain causing infection and possible brain damage. Inaccurate test results leading to misdiagnosis.
<i>Speech Pathology</i>	
<ol style="list-style-type: none"> 1. Initiation of feeding too soon or inserting objects into the mouth during dysphagia treatment. 2. Improper placement, adjustment or monitoring of oral prostheses such as palatal lifts or obturators. 3. Improper insertion of speaking devices for patients on respirators. 	<ol style="list-style-type: none"> 1. Patient choking and/or aspirating leading to aspiration pneumonia and possible death. 2. Tissue breakdown secondary to pressure; or device could weaken over time, break and fall into the airway. 3. Reduction in air flow.
Risks Due To Errors Of Omission	
<i>Audiology</i>	
<ol style="list-style-type: none"> 1. Failure to use properly calibrated audiometric equipment. 2. Oversight of important diagnostic indicators of acoustic neuroma or middle ear pathology. 3. Failure to detect temporary threshold shifts due to acoustic trauma or ototoxic drugs. 	<ol style="list-style-type: none"> 1. Incorrect test results leading to inappropriate recommendations for treatment. 2. Lack of medical referral and appropriate medical care. 3. Permanent hearing loss.
<i>Speech Pathology</i>	
<ol style="list-style-type: none"> 1. Oversight of vocal changes or disregard for patient's complaints of pain or hoarseness. 2. Oversight of significant changes in speech or language skills in adults with aphasia or motor speech disorders. 3. Failure to recognize fistulae or abscess while working with a laryngectomized person. 	<ol style="list-style-type: none"> 1. Failure to identify symptoms of conditions such as cancer or vocal nodules needing medical attention. 2. Life-threatening or medically treatable condition would go undetected. 3. Lack of attention to potentially dangerous medical condition.
Risks Due To Misdiagnoses	
<i>Audiology And Speech Pathology</i>	
<ul style="list-style-type: none"> • Misdiagnosis 	<ul style="list-style-type: none"> • Inappropriate and/or unnecessary treatment. • Unnecessary surgery. • Delay in obtaining medical treatment. • Unnecessary financial expense. • Increased severity of condition because of delay in receiving appropriate services.

Source: American Speech-Language Hearing Association

- **Electrical stimulation for cochlear implant selection and rehabilitation.** Perhaps the most invasive procedure within audiologists' scope of practice is electrocochleography. Mapping of the cochlear nerve using electrical stimulation is most frequently used to determine if a candidate for an implant has a functional nerve prior to receiving surgery. Exhibit 2.2 provides a detailed description of the procedure and its risks.
- **Neurophysiologic intraoperative monitoring.** Through intraoperative monitoring, audiologists measure and record the electrophysiologic properties of the auditory system. The procedure, which utilizes electrodes, is performed during any surgery that places the auditory nerve and its postoperative function at risk for permanent damage or impairment.
- **Balance system assessment.** A number of procedures now performed by audiologists utilize subcutaneous, or subdermal, electrodes. Several procedures that involve electrodes are used during balance testing, such as electroneuronography (measurement of facial nerve function); auditory brain stem response, or ABR (measurement of the brain's response to stimulation of any of the senses. ABR is used to diagnose neurological damage and performed when a patient, usually a newborn or difficult-to-test child, cannot or will not respond otherwise); and functional cortical mapping (used to identify brain lesions).
- **Vocal tract visualization and imaging.** Visualization and imaging of the vocal tract, used to assess swallowing function or identify gross physical abnormalities affecting speech production, can be performed by speech pathologists using several different methods. Such methods include both oral and nasal endoscopy—the latter of which is described below in Exhibit 2.2—and videofluoroscopy (discussed next under instrumental diagnostic procedures for swallowing).
- **Instrumental diagnostic procedures for swallowing.** Speech pathologists in medical settings are often primarily involved in assessing and treating dysphagia, or swallowing difficulties. Speech pathologists now diagnose a patient's degree of dysphagia using videofluoroscopy, which is a videotaped, moving x-ray used to evaluate swallowing ability (also called a modified barium swallow).
- **Management of tracheoesophageal puncture/fistulization.** Following a laryngectomy (surgical removal of the larynx), a small hole is created in the neck to allow air directly into the trachea. Another hole is made to connect the trachea and the

esophagus (a tracheoesophageal puncture) through a procedure called fistulization. Connection of the two cavities allows air to pass between them, creating the possibility of producing speech using pulmonary (lung)—rather than impounded esophageal (or “burped”)—air. Speech pathologists assist patients who have undergone laryngectomies, tracheoesophageal punctures, and fistulization by selecting, fitting, and orienting them in the use of prosthetic/adaptive speaking devices.

In addition to the procedures described above, other responsibilities and new technologies are being developed for the professions. For example, speech pathologists serve as pivotal members of teams that treat patients who have cleft palates. Speech pathologists also recommend dosages of Botox (botulinum toxin that is injected into the vocal cords to relax them) for patients with spasmodic dysphonia. In audiology, the measurement of otoacoustic emissions (spontaneous and induced sounds emitted by the inner ear) is being explored and is considered a potentially valuable addition to clinical practice, particularly for screening the hearing of newborns.

Speech pathologists and audiologists are autonomous professionals

The autonomy of a profession’s practitioners is a factor in the amount of harm the profession can impose upon consumers. Autonomy can be seen in the degree of authority and responsibility practitioners have in making decisions about the delivery of services. Benjamin Shimberg and Doug Roederer have compiled a list of licensing criteria to assist legislators and others in scrutinizing professions seeking regulation. In their book, *Occupational Licensing: Questions a Legislator Should Ask*, Shimberg and Roederer suggest that the following questions be answered:

1. Do practitioners customarily work on their own or under supervision?
2. Is there a high degree of independent judgment required of practitioners?¹

Shimberg and Roederer contend that there is little justification for licensure if practitioners work under licensed supervision.

In addressing Shimberg and Roederer’s questions, we found that speech pathologists and audiologists are not supervised. No state licensing or federal law requires either speech pathology or audiology services to be provided under the supervision or control of any other person. In addition, speech pathologists and audiologists provide direct clinical services to patients and make independent judgments. Many speech pathologists and audiologists work in private practices where they

Exhibit 2.2
Two Invasive Procedures Performed by Speech Pathologists and Audiologists

Procedure	Electrocochleography	Nasendoscopy
Performed By	Audiologists	Speech Pathologists
Definition	Measurement of electrophysiologic potentials of peripheral portions of the auditory system (i.e., cochlea and auditory nerve). Used to determine whether cochlear nerve in a candidate for cochlear implant is functional; in diagnosis of Ménière's disease (sudden unilateral hearing loss); and during intraoperative monitoring.	Endoscopy is a general method for viewing internal body structures using an endoscope, which is passed through a natural body opening or small incision. Both oral endoscopy and nasal endoscopy (or nasendoscopy) are performed to evaluate speech and voice structures. Oral endoscopy commonly utilizes rigid endoscopes inserted into the mouth; nasendoscopy usually requires flexible endoscopes inserted through the nose.
How It Is Performed	Some potentials can be measured by surface electrodes, but more accurate and detailed studies require electrodes to be placed in closer proximity to the inner ear. Electrocochleography may also be performed by an audiologist using an electrode that rests directly on the tympanic membrane (approximately 1 ¼ inches deep in the head) and makes contact with the ear drum.	Topical anesthetics may or may not be used with nasendoscopy. The speech pathologist inserts a flexible tube (about ¼ inches thick) into the nasal cavity and down the throat to the uvula (approximately 3 inches into the body). The tube contains a system of optical light transmission channels and lenses which relay images of the internal structures onto a television screen.
Risks	Electrical shock and infection (disease transmission). Positioning the electrode closer to the tympanic membrane usually creates discomfort for the patient and increases the risk of traumatizing the ear drum.	Infection (disease transmission); nasal irritation; gag reflex; bleeding of the nasal mucosa; fainting; spasm of the larynx. When topical anesthetics are used, there is also a risk of allergic reaction, which can result in a rapid swelling of tissue that can inhibit the ability to breathe.

Sources: Hawaii Medical Library; University of Hawaii (UH) Hamilton Library; UH Division of Speech Pathology and Audiology

provide diagnostic and treatment services directly to patients. Speech pathologists and audiologists also receive and make referrals to other health care professionals.

Most states license speech pathologists and audiologists

Speech pathologists and audiologists are regulated in most states. Hawaii was among the first states to regulate speech pathologists and audiologists when it enacted Chapter 468E, HRS, in 1974. Today, 47 states regulate audiologists and 44 regulate speech pathologists. With the exceptions of Colorado, Minnesota, and Washington, all states that regulate the professions do so through licensure.

Licensure Should Be Administered by a Professional Board

In this evaluation, we examined the need for licensure as opposed to lesser forms of state regulation. We also considered alternatives to state regulation and evaluated the cost effectiveness of state regulation. We concluded that the most appropriate and cost effective means of regulating speech pathologists and audiologists in Hawaii is through licensure, administered by a professional regulatory board within the Department of Commerce and Consumer Affairs.

Licensure provides needed protection from harm

Licensure (or right-to-practice) is the strictest form of professional regulation. Under licensure laws, it is illegal for a person to practice a profession without first meeting state standards. A less stringent form of regulation, *certification*, provides title protection (right-to-title) by the state to persons meeting predetermined standards. Those without certification may perform the duties of the occupation but cannot use the title. *Registration* is the least restrictive form of regulation, usually requiring individuals to merely file their names, addresses and qualifications with a government agency before practicing the occupation.²

We found that because of their high potential for causing harm to the public, licensure is the most appropriate form of regulation for speech pathologists and audiologists in Hawaii. Only through licensure can unqualified persons be restricted from practicing the professions.

Professional board provides valuable expertise

Although Section 436B-7, HRS, gives the Department of Commerce and Consumer Affairs the power to create fact-finding committees and to contract with qualified persons to assist it in exercising its regulatory powers and duties, we found that a professional board is a more appropriate mechanism for performing this function.

Regulatory boards should be comprised of a majority of practitioners of the profession being regulated and a minority of consumers of the services provided by the regulated profession. Practitioners ensure that board decisions are soundly based in the technical and scientific knowledge required to practice. All board members ensure that board decisions are grounded in the public's interest by consistently applying objectivity, sound judgment and fairness.³

Unlike a special advisory committee that can be assembled by the department, the professional board is a volunteer, standing body primarily comprised of professional peers knowledgeable both in the regulated fields and the structure and function of the regulatory system. Three-year terms of continuous commitment make board members uniquely suited to advise, discipline, and monitor speech pathologists and audiologists in Hawaii by providing that all applications for licensure are reviewed by professional peers and that professional standards are monitored.

Although the board reviews all applications for licensure, its expertise is more fully utilized during the consideration of unusual or questionable applications. Unlike departmental staff (who have no professional knowledge of the occupations) or temporary professional advisors (who lack institutional knowledge of the regulatory system and process), a board is able to utilize both its expertise as professional peers and its corporate regulatory knowledge to reach decisions. In contrast to a special advisory committee or a contracted consultant, a board also provides for consumer input through its three public members.

In addition to reviewing applications for licensure, board members are uniquely suited and well-positioned to continuously monitor professional standards, trends, and issues affecting Hawaii's practitioners. Among the issues under consideration by the current Board of Speech Pathology and Audiology are professional standards for paraprofessionals; recognition of certification from the American Academy of Audiology (AAA); use of the title "Doctor" following receipt of an "AuD designator" (a purchased entitlement from an unrecognized institution); and telepractice issues. The board is also reviewing the need for continuing education as a requirement for licensure renewal and is revising the professional and statutory scopes of practice for the occupations.

American Speech-Language Hearing Association certification is insufficient

The American Speech-Language Hearing Association (ASHA) has enjoyed prestige as a professional association of speech pathologists and audiologists and offers a certificate of clinical competence (CCC) to qualified practitioners as a benchmark of professional achievement. However, reliance on certification by ASHA—which is not synonymous with state certification—as an alternative to state regulation would not be sufficient to protect the public's health, safety or welfare.

Membership is voluntary

As a professional organization, ASHA is a purely voluntary coalition of speech pathologists and audiologists. Practitioners are under no obligation to become members or to retain membership in order to practice their profession. In addition, ASHA must now compete for members with other professional organizations. Several groups have emerged that are specifically geared to audiologists (who make up a minority of ASHA's membership) and their interests. These include the Academy of Rehabilitative Audiology (ARA), the American Auditory Society (AAS), the Academy of Dispensing Audiologists (ADA), and the American Academy of Audiology (AAA). In fact, according to some practitioners, ASHA is "no longer the arbiter of professional performance and quality" for the two professions. Indeed, we found that nearly a third of all speech pathologists and audiologists licensed by the State of Hawaii are *not* ASHA members.

ASHA lacks authority

Because its membership is voluntary, ASHA has no legal recourse against practitioners who are in violation of its code of ethics other than to revoke certification. In addition, ASHA has no authority to keep track of complaints against practitioners or to make information regarding complaints available to the public. In the absence of state regulation of speech pathologists and audiologists, ASHA is powerless to prevent an individual from continuing to practice in spite of unethical or incompetent service. Indeed, one of the factors that led to an increased interest in state licensure for speech pathologists and audiologists was an awareness that former ASHA members who had been expelled for violations of the ASHA Code of Ethics were still free to engage in unprofessional practices without redress.⁴

Certification is a one-time event

Once certified, ASHA members need only pay their yearly dues to retain their certification. There are no continuing education or verification of competency requirements for continued certification. As such, practitioner competency cannot be ensured beyond initial certification. Several parties with whom we spoke voiced concerns about relying on ASHA certification in the absence of state regulation, such as: Where and how would a practitioner's active status and credentials be checked? Would they be verified at a national or local level; on-line or face-to-face? How would the public be alerted when a practitioner enters the state, and know whether or not a practitioner's record is clean?

Other alternatives are not appropriate

In addition to exploring reliance on ASHA certification to protect the public's health, safety and welfare, we assessed several other options to state licensure and found that they, too, were not appropriate.

For example, we found that reliance on marketplace influences is not a sufficient alternative to state regulation. A free market economy cannot ensure that competent practitioners will be rewarded with clientele and all others will be driven out of business. Most consumers are ill-informed about speech pathologists and audiologists. The consensus of those with whom we spoke was that, in the absence of regulation, the opportunities for charlatans would be abundant. Practically speaking, it would be very difficult for consumers to verify practitioners' credentials, especially prior to receiving services. Many consumers lack the time, resources, inclination or ability (particularly the elderly and the incapacitated—who are more likely to require speech pathology and audiology services) to research practitioners' credentials and reputations prior to receiving needed services.

We also found that repeal of regulation may affect speech pathologists' and audiologists' abilities to collect third party reimbursements for their services. This difficulty may in turn affect the availability of such services. Several insurers with whom we spoke said they would deny participation in their insurance plans to unlicensed speech pathologists and audiologists. Federal Medicare reimbursement requirements for various types of health care institutions also stipulate that practitioners must be licensed in the state in which they are practicing, if licensure is necessary. As a result, facilities requiring licensure to meet third party reimbursement standards may simply stop offering services. Such a disruption in the availability of care would negatively impact consumers who are in need of such services.

Current cost of regulation is minimal

We found that the administration of a regulatory program for speech pathologists and audiologists that consists of licensure with a professional board poses a minimal financial and operational burden to the State.

Section 26H-2(7), HRS, requires the fees for any given regulatory program to completely cover the cost of its administration. In addition, members of the Board of Speech Pathology and Audiology are volunteers, and there are no travel reimbursements given for Oahu members to attend meetings. We found that of 26 occupational boards it reviewed, the Department of Commerce and Consumer Affairs estimated the Board of Speech Pathology and Audiology to be the third least expensive to administer, at approximately \$700 per year (excluding staff costs; see Exhibit 2.3 below). With approximately 43 applicants for licensure in speech pathology and audiology per year and more than 350 licensure renewals every other year, the cost of administration is adequately offset by the fees collected as long as staff costs are not factored in by the department.

Exhibit 2.3
Annual Cost of Administering Various Boards
*(Excludes staff costs)**

Real Estate	\$128,905	Barbers & Cosmetologists	\$2,827
Contractors	\$44,234	Pest Control	\$2,361
Medical	\$16,735	Electricians & Plumbers	\$2,320
Dental	\$14,061	Chiropractors	\$2,050
Pharmacy	\$12,069	Motor Vehicle Repair	\$1,871
Massage	\$11,841	Optometry	\$1,863
Nursing	\$9,873	Private Detectives & Guards	\$1,508
Engineers, Architects, Surveyors & Landscape Architects	\$8,784	Physical Therapy	\$1,150
Boxing	\$6,000	Osteopaths	\$1,129
Acupuncture	\$4,729	Veterinarians	\$829
Accountancy	\$3,961	Speech Pathology and Audiology	\$700
Psychology	\$3,533	Naturopathy	\$458
Motor Vehicle Industry	\$3,520	Elevator Mechanics	\$300

*Costs include paper, envelope, postage, photocopying, and travel.

Source: Department of Commerce and Consumer Affairs

The Department of Commerce and Consumer Affairs is also adequately organized to handle administration of the Board of Speech Pathology and Audiology and regulation of speech pathologists and audiologists in the state. The department's Professional and Vocational Licensing Division is specifically designed to provide administrative and advisory services to the various boards and commissions within the department. The division also issues and renews licenses of qualified applicants and provides administrative assistance to each regulatory board and commission.

Conclusion

We found that speech pathologists and audiologists should continue to be regulated and licensed in Hawaii because the professions pose potential harm to consumers. In addition, we found that a professional board within the Department of Commerce and Consumer Affairs is the most appropriate means of administering such a licensure program. The department is organized to handle and specifically designed to accommodate the administration of professional boards. The expertise afforded by a professional board—a standing body of practitioners, medical doctors, and public members—provides the most efficient and effective means of implementing the regulation of speech pathologists and audiologists in Hawaii.

Recommendations

1. The Legislature should continue the regulation of speech pathologists and audiologists.
2. The Department of Commerce and Consumer Affairs' Professional and Vocational Licensing Division should continue to administer the licensing of speech pathologists and audiologists with the aid of a professional board.

Notes

Chapter 1

1. Section 1, Act 254, Session Laws of Hawaii, 1999.
2. Section 468E-1, Hawaii Revised Statutes.
3. Section 468E-2, Hawaii Revised Statutes.
4. Hawaii, The Auditor, *Sunset Evaluation Update: Speech Pathologists and Audiologists*, Report No. 87-23, Honolulu, December 1987, p. 9.
5. *Ibid.*, pp. 14-15.

Chapter 2

1. Benjamin Shimberg and Doug Roederer, *Occupational Licensing: Questions a Legislator Should Ask*, Lexington, Kentucky, The Council of State Governments, 1994, p. 25.
2. *The Directory of Professional and Occupational Regulation in the United States and Canada*, Lexington, Kentucky, The Council on Licensure, Enforcement and Regulation (CLEAR), 1994, p. iv.
3. "Views on the Licensure and Regulation of Health Care Professionals," www.ncsbn.org/iwhpr/ipw1196.html, Interprofessional Workgroup on Health Professions Regulation, 1996, p. 4.
4. Robert M. McLauchlin (ed.), *Speech-Language Pathology and Audiology: Issues and Management*, New York, New York, Harcourt Brace Janovich, 1986, p. 144.

Responses of the Affected Agencies

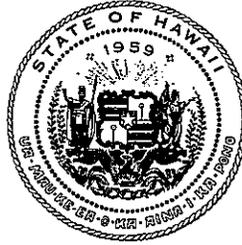
Comments on Agency Responses

We transmitted drafts of this report to the Department of Commerce and Consumer Affairs and the Board of Speech Pathology and Audiology on December 23, 1999. A copy of the transmittal letter to the Department of Commerce and Consumer Affairs is included as Attachment 1. A similar letter was sent to the Board of Speech Pathology and Audiology. The response from the board is included as Attachment 2. The Department of Commerce and Consumer Affairs did not submit a response.

The board was not able to convene to assemble a detailed response to our draft; however, it commented that our report is thorough, informative, and corroborates the board's sentiments to retain regulation and the board.

ATTACHMENT 1

STATE OF HAWAII
OFFICE OF THE AUDITOR
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917



MARION M. HIGA
State Auditor

(808) 587-0800
FAX: (808) 587-0830

December 23, 1999

COPY

The Honorable Kathryn S. Matayoshi, Director
Department of Commerce and Consumer Affairs
Kamamahu Building
1010 Richards Street
Honolulu, Hawaii 96813

Dear Ms. Matayoshi:

Enclosed for your information are three copies, numbered 6 to 8 of our draft report, *Sunset Evaluation Update: Speech Pathologists and Audiologists*. We ask that you telephone us by Tuesday, December 28, 1999, on whether or not you intend to comment on our recommendations. If you wish your comments to be included in the report, please submit them no later than Tuesday, January 4, 2000.

The Board of Speech Pathology and Audiology, Governor, and presiding officers of the two houses of the Legislature have also been provided copies of this draft report.

Since this report is not in final form and changes may be made to it, access to the report should be restricted to those assisting you in preparing your response. Public release of the report will be made solely by our office and only after the report is published in its final form.

Sincerely,

Marion M. Higa
State Auditor

Enclosures

BENJAMIN J. CAYETANO
GOVERNOR



KATHRYN S. MATAYOSHI
DIRECTOR

NOE NOE TOM
LICENSING ADMINISTRATOR

BOARD OF SPEECH PATHOLOGY AND AUDIOLOGY
STATE OF HAWAII
PROFESSIONAL & VOCATIONAL LICENSING DIVISION
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
P.O. BOX 3469
HONOLULU, HAWAII 96801

December 29, 1999

RECEIVED

DEC 29 1 13 PM '99

OFFICE OF THE AUDITOR
STATE OF HAWAII

Ms. Marion M. Higa
State Auditor
Office of the Auditor
465 S. King Street, Room 500
Honolulu, Hawaii 96813-2917

Dear Ms. Higa:

RE: Draft Report, Sunset Evaluation Update: Speech Pathologists
and Audiologists

The Board was not able to convene within the time frame in which a response was requested. However, as documented in minutes of its prior meeting, the Board has strongly supported regulation of speech pathologists and audiologists through licensure administered by a state board. Given that your report corroborates the Board's sentiments, there is strong support for your recommendations to retain regulation and the Board. As Chair, I compliment your office on a report that is thorough and informative. Thank you very much.

Sincerely,

A handwritten signature in cursive script that reads "Janice Shintani".

Janice Shintani
Chairperson
Board of Speech Pathology and Audiology

