#### **Pacific University**

### CommonKnowledge

College of Optometry

Theses, Dissertations and Capstone Projects

5-1997

# Minimum requirements and recommendations for a complete vision examination: A survey of requirements and recommendations from state boards of optometry

John R. Harrington Pacific University

Jonathon C. Thomas *Pacific University* 

#### **Recommended Citation**

Harrington, John R. and Thomas, Jonathon C., "Minimum requirements and recommendations for a complete vision examination: A survey of requirements and recommendations from state boards of optometry" (1997). *College of Optometry*. 1199.

https://commons.pacificu.edu/opt/1199

This Thesis is brought to you for free and open access by the Theses, Dissertations and Capstone Projects at CommonKnowledge. It has been accepted for inclusion in College of Optometry by an authorized administrator of CommonKnowledge. For more information, please contact CommonKnowledge@pacificu.edu.

# Minimum requirements and recommendations for a complete vision examination: A survey of requirements and recommendations from state boards of optometry

#### **Abstract**

A definition of a complete vision exam has never been universally acknowledged. Guidelines have been developed by many individual state Boards of Optometry and by the American Optometric Association listing specific requirements or recommendations for a complete vision examination. This study is a compilation of individual state Boards of Optometry's requirements and recommendations for "complete vision examinations." Letters were sent to all fifty state Boards of Optometry requesting information regarding their requirements and/or recommendations for complete vision examinations. Thirty-three Boards of Optometry responded with information. Ofthose, twelve have no requirements, three refer directly to the American Optometric Association's guidelines, and eighteen have a range of requirements and/or recommendations. Inconsistencies between state boards are more abundant than areas of agreement in terms of required/recommended procedures. Optometry would benefit from standard guidelines. This would give optometry more professional and legal leverage by virtue of decreasing inconsistencies that exist, increasing overall quality assurance of complete vision examinations, and providing a template for patient care.

#### **Degree Type**

Thesis

#### Degree Name

Master of Science in Vision Science

#### **Committee Chair**

Scott Cooper

#### **Subject Categories**

Optometry

#### Copyright and terms of use

If you have downloaded this document directly from the web or from CommonKnowledge, see the "Rights" section on the previous page for the terms of use.

If you have received this document through an interlibrary loan/document delivery service, the following terms of use apply:

Copyright in this work is held by the author(s). You may download or print any portion of this document for personal use only, or for any use that is allowed by fair use (Title 17, §107 U.S.C.). Except for personal or fair use, you or your borrowing library may not reproduce, remix, republish, post, transmit, or distribute this document, or any portion thereof, without the permission of the copyright owner. [Note: If this document is licensed under a Creative Commons license (see "Rights" on the previous page) which allows broader usage rights, your use is governed by the terms of that license.]

Inquiries regarding further use of these materials should be addressed to: CommonKnowledge Rights, Pacific University Library, 2043 College Way, Forest Grove, OR 97116, (503) 352-7209. Email inquiries may be directed to:.copyright@pacificu.edu

# MINIMUM REQUIREMENTS AND RECOMMENDATIONS FOR A COMPLETE VISION EXAMINATION: A SURVEY OF REQUIREMENTS AND RECOMMENDATIONS FROM STATE BOARDS OF OPTOMETRY

By

JOHN R. HARRINGTON JONATHON C. THOMAS

A thesis submitted to the faculty of the College of Optometry Pacific University Forest Grove, Oregon For the degree of Doctor of Optometry May, 1997

> Advisor: Scott Cooper, O.D., M.Ed.



John Harrington

Jonathon Thomas

Scott Cooper, O.D., M.Ed. Advisor

#### BIOGRAPHICAL SKETCHES OF THE AUTHORS

#### John Harrington

Graduate of the University of Wyoming in 1993 with a Bachelor of Science in Biology. Honored at the Dean's Honors Convocation in 1992 while attending the University of Wyoming. Graduate of Pacific University College of Optometry Class of 1997. Entering post-graduate residency in hospital based optometry at Portland Veterans Administration Medical Center, Portland Oregon, 1997-1998.

#### Jonathon Thomas

Accepted Alexander Rutherford Scholarship and Wally Green Memorial Scholarship upon entering the University of Calgary, Canada. Graduate of the University of Calgary in 1992 with Bachelor of Science in Zoology. Graduate of Pacific University College of Optometry Class of 1997. Entering post-graduate residency in comanagement of surgical and medical eye care at the Eye Care Associates in Nevada, Reno and Las Vegas, 1997-1998.

#### ABSTRACT

A definition of a complete vision exam has never been universally acknowledged. Guidelines have been developed by many individual state Boards of Optometry and by the American Optometric Association listing specific requirements or recommendations for a complete vision examination. This study is a compilation of individual state Boards of Optometry's requirements and recommendations for "complete vision examinations."

Letters were sent to all fifty state Boards of Optometry requesting information regarding their requirements and/or recommendations for complete vision examinations. Thirty-three Boards of Optometry responded with information. Of those, twelve have no requirements, three refer directly to the American Optometric Association's guidelines, and eighteen have a range of requirements and/or recommendations. Inconsistencies between state boards are more abundant than areas of agreement in terms of required/recommended procedures.

Optometry would benefit from standard guidelines. This would give optometry more professional and legal leverage by virtue of decreasing inconsistencies that exist, increasing overall quality assurance of complete vision examinations, and providing a template for patient care.

#### INTRODUCTION

While many of the Boards of Optometry (or their equivalent) have developed practice guidelines that include recommended or required testing for complete vision examinations, others have no specific recommendations. Still others do not have specific practice guidelines of their own, but follow the clinical practice guidelines developed by the American Optometric Association. These guidelines are recommendations for patient care that have been developed by a process involving a combined effort of research and clinical experience in patient care.

The purpose of this study is to collect data from all United States Optometric regulatory bodies as to what constitutes a complete vision examination, and to organize the data categorically. This categorization leads to an analysis of these practice guidelines and begins to identify consistencies. Discussion considers inclusion and exclusion of particular tests in complete vision examinations and further discusses the advantages and disadvantages of clinical practice guidelines. The collection and comparison of requirements in this study will serve as a basis for discussing examination requirements of health maintenance organizations and other practice types, as well as the true composition of examinations in various practice situations.

#### **METHODS**

A letter was sent to each of the fifty State Boards of Optometry and the fifty State Optometric Associations requesting any information they may have on recommended or required testing for complete vision examinations (Appendix A). A follow-up letter was sent to those State Boards not responding to the first letter (Appendix B). No follow-up phone calls were made (Appendix C is a complete list of the State Boards who were sent written requests for information). Indiana Optometric Association, who was the only State Optometric Association to reply, is also included in appendix C.

The responses were analyzed and the specific requirements of each state were organized in table form. The specific tests were then organized into the following categories: accommodation, vergence, motilities/motor fields, color vision, neurological testing, tonometry, structure observations, recording requirements, other testing, and refraction subcategories.

#### RESULTS

Thirty-three organizations responded to our request for information. Of those, twelve have no requirements for what should be included in a complete vision examination and three refer directly to the AOA guidelines. The remaining eighteen states have various requirements that optometrists must meet in their examinations. This data is presented in the table entitled "Examination Requirements or Recommendations by General Category."

#### REFRACTION

All of the eighteen organizations with requirements specify that a refraction must be performed. Three of the eighteen were nonspecific about this, stating simply that the optometrist must perform a refraction. Ten require a "subjective refraction," but were not specific regarding testing distance. On the other hand, five include a requirement that a *distance* subjective be performed and four organizations require a *near* subjective refraction. Six require static

retinoscopy, while six others require a nonspecific objective refraction. Five of the responding parties require keratometry and one requires that either an autorefraction or static retinoscopy be performed. See table titled "Refraction Requirements or Recommendations by Subcategory."

#### ACCOMMODATION

Accommodation testing is referred to by eleven of the eighteen who have requirements. Two stated that "binocular testing" must be performed. The interpretation of the authors is that accommodation testing is a part of binocular testing. Three require a nonspecific "test of accommodation at distance and near" while two others clearly indicate that accommodative amplitude must be tested. The remaining four are even more nonspecific. They simply state that the optometrist "test accommodative ability."

#### VERGENCE

Vergence testing is specified in one fashion or another by thirteen of the eighteen organizations with requirements. (The two organizations mentioned above that require "binocular testing" are included in this category). Four organizations require vergence testing at distance and near. Three out of those four also state that "binocular coordination at distance and near" be tested. Three are nonspecific in their requirement to test vergence and one of those requires that "extraocular measurements" should be taken. This response is included in the vergence category, as eye movements are generally graded, but not always quantified. Four of the organizations are more specific, stating that amplitude of convergence and/or divergence is tested.

#### MOTILITIES/MOTOR FIELDS

Motilities/Motor fields are required in some form by fourteen of those responding to our survey. Motilities are specified by six organizations as a testing requirement and one of these six also defines this as "extraocular measurement." "Coordination testing" is required by one while "coordination at distance and near" is required by two more. The others require "ocular muscle balance" testing.

#### COLOR VISION

Four state organizations require some form of color vision testing. One states that a color vision screening must be performed, another requires this testing be conducted "at time of original examination." The remaining two are nonspecific in stating simply that "color vision" be tested.

#### NEUROLOGICAL TESTING

Five of the respondents require neurological testing. Two require the testing of "neurological integrity," one requires the testing of "pupil reactivity," and one requires both. The fifth state requires "neurological and systemic evaluation."

#### IOP MEASUREMENT

All but two sate organizations with written requirements specify that optometrists perform tonometry at each complete vision examination. One state of the remaining two requires that tonometry be performed on those patients twenty-five years old and over, while the other did not mention tonometry as a requirement.

#### RECORDING REQUIREMENTS

Four state organizations have specific recording requirements for each examination. Two simply state that the examination record is all-inclusive regarding each patient visit. Two require that the record reflects the prescription and one requires that visual acuity be recorded. This category reflects only those organizations that specifically list a requirement for recording.

#### HEALTH EXAM

All states that replied with requirements indicate that a health exam which includes "adnexa" or "surrounding structures," anterior segment, and posterior segment evaluations must be included in a complete vision examination.

#### MISCELLANEOUS

Stereopsis and fusion are included in the "other" section of the table titled "Examination Requirements or Recommendations." There were five state organizations that listed these, in one form or another, as a requirement. One requires fusion testing at distance and near. Three require the testing of stereopsis, but list no specific procedure or distance. The last one requires the testing of "fusional ability" but makes no other reference to either stereopsis or vergence.

Sixteen of these organizations require that the optometrist complete a case history and visual acuities. Three require confrontation field testing and four simply require that visual fields be performed. Visual fields are to be completed "when indicated" by two of the responders and one requires central visual field testing after the age of forty.

Phorias are required by four of the state organizations. Three require that the patient be given recommendations and directions for educational purposes. One requires that the patient receive a referral to another doctor as needed. Four require that the new prescription by given to the patient and two require that additional tests be performed "as indicated."

#### DISCUSSION

Presently, there is no national standard of requirements for a comprehensive vision examination. There are, however, identifiable areas of agreement and disagreement between state organizations that responded. All of those that had state requirements recommended, in one fashion or another, a refraction. As evidenced in the results, it is plain that some state organizations are more vague regarding the refraction than others, but it is recommended. There is also a unanimously agreed upon recommendation of an ocular health examination. Besides these few resounding areas of agreement, the remainder is much less consistent. For example, most states agree that tonometry must be performed, however, Virginia has no written requirement for monitoring intraocular pressure. While each optometrist in Virginia most likely includes this in a complete vision examination, it is an example of the inconsistencies in the literature from state to state.

Guidelines, requirements, or suggestions for a complete vision examination are either put forth on the state or national level by a state board or association, or by the AOA. Some state boards have specific requirements; others only make recommendations, a few follow the guidelines put forth by the AOA, while some have no policy. Such guidelines have been explored in this project and many differences have been found from state to state in what testing is required, if any, in a complete vision examination.

There are several advantages and disadvantages to having requirements of specific optometric activities for a complete vision examination. One very significant advantage of

having a national standard would be increased consistency within the profession of optometry. This would result in easier cross-referral and guarantee quality of examinations for the public. This cohesiveness between optometrists would command greater respect from other professionals and legislators by virtue of consistencies created within the profession. On occasion, ophthalmology has pointed to the lack of practice uniformity within optometry to discount optometry's qualifications. Practice guidelines or requirements may aid in gaining professional respect and legislative leverage via the consistencies they promote.

Another advantage to using a national standard is the added liability protection it may offer. For those in compliance with such guidelines, incidence of professional liability may decrease. This may be due to improved patient management or by clarifying standards of care and thereby offering more protection.

Guidelines help insure good patient care. This occurs by providing suggestions and/or requirements to all optometrists on how the profession as a whole believes a situation should be handled. With regard to complete vision examinations, guidelines should reflect the broad scope of optometry including its unique background in visual performance and in preventative vision care. Guidelines should also consider the epidemiology and severity of ocular and visual problems.

Better patient care may also stem from optometrists recognizing areas for personal improvement while upholding the guidelines and seeking continuing education to remedy a relative weakness. In short, guidelines may help optometrists stay current. This is addressed in continuing education requirements, but guidelines to patient care allow the optometrist to specifically target lectures for his/her individual benefit.

Any kind of accepted guideline, especially if it were considered standard of care, would need to be met by all. Such requirements may improve relationships between optometrists in commercial settings and those doctors who are not. It may also bring into question time constraints imposed on an optometrist by management in commercial settings and in health maintenance organizations. This would level the economic playing field by virtue of establishing the minimal quality of a complete examination and reduce "mass production" mentality, economic advantages, and the potential existence of incomplete testing in time-poor environments.

A guideline for a complete vision examination may also create complications in time constraints when severe problems are identified during an examination. Additional testing or special procedures may create a situation where the requirements for a comprehensive vision examination may not be completed during a given appointment time. However, "standard of care" varies in different situations and the optometrist exercising good judgment in patient care will most likely not suffer from straying from any "complete vision examination" guideline when outstanding circumstances arise. On the other hand, an optometrist not performing additionally indicated tests once the requirements for a complete vision examination are met would not be complying with standard of care for that particular situation. Therefore, an increase in required testing should not be considered a disadvantage in putting forth guidelines for a complete vision examination.

One guideline for a complete vision examination is not practical for all populations, especially with respect to age. Creating guides for several different populations may prove to be expensive and time consuming. Fortunately, the American Optometric Association has put forth such guidelines for pediatrics, geriatrics, and others. Three of the organizations that responded to our request for information already promote these guidelines.

The AOA guideline package has many benefits associated with its use. One is that it provides a low cost solution to generating guidelines or other requirements. This may prove especially beneficial to the twelve responding boards of optometry who currently have no

recommendations of what constitutes a complete vision examination. These guidelines are already available, are very easy to obtain, and many optometrists across the nation use them, whether or not there is an official policy in their governing body promoting their use.

By collecting, compiling, and comparing the recommendations of the Boards of Optometry, it is evident that inconsistencies exist. There are definite reasons why each state should adopt its own requirements and potentially an even better argument for all of optometry to accept one set of guidelines. The disadvantages may take time to get use to, but in the end, patients and optometry as a whole will benefit.

This study has been designed to be the first in a series of studies that will try to determine the standard of care as it relates to complete vision examinations. It is the idea of the authors that this study should provide a starting point for the United States regulatory bodies to begin setting forth guidelines to define a complete vision examination. The end goal is to increase patient benefit and eliminate discrepancies that exist in "complete vision examination" requirements. The direct result of these accomplishments will be increased interprofessional relationships, better legislative leverage, and improved consistency and quality of care.

#### Examination Requirements or Recommendations by General Categories

State		No Specified				Motilities/	Color	Neurological		Structure	Recording	AOA	
	No Response	Requirements	Refraction	Accommodation	Vergence	Motor Fields	Vision	Testing	Tonometry	Observation	Requirements	Guidelines	Other
AK Board of			2.5	400	1	1600		327	20 0				
Examiners in			×	×	x	×		×	×	A, P, Adj.	1		Hx, VA, Confrontation Fields
Optometry													
AL Board of			×	x	x	×			×	A, P, Adj.			Hx
Optometry										1000			
AR Board of		×											
Optometry													
AZ Board of	×												
Optometry											1512		
CA Board of		×							1				
Optometry		(ff)											
CO Board of													
Optometric	×							0 8	1				
Examiners													
CT Board of				SV.	2	1200				A D A-11	7		Hx, VA, K's, Phorias, Fusion
Examiners			x	x	x	×			X	A, P, Adj.			near and far
DC Optometry	100												
Board	×												
				1									Hx, VA, Treatment
DE Board of			x	1					×	A, P, Adj.	All inclusive re:		Recommendations, Directions
Examiners			,							.,,.,,	patient visit		patient
FL Board of	-						200						panone
Optometry	×										i .		
GA Board of			_		-		_		-		_		
	×												
Optometry				-									
HI Board of		×							E .				
Examiners		72							-		-		
IA Board of	×										1		
Examiners													
ID Board of												×	
Optometry												_ ^	
IL Optometric													
Licensing &			x	×	x	×	x	x	x	A, P, Adj.			Hx, VA, Phorias
Disciplinary				^	_ ^		^	^	^	A, F, Auj.			nx, va, Friorias
Committee			×										
IN Optometric				x									Hx, VA, Patient Education,
Assoc.			×	×	X	x		X	x	A, P, Adj.			Phorias
KS State Board	71-22-24											-	
of Examiners in			×			×			x	A, P, Adj.			VA
Optometry							-111-12		100	2.3.3.12.002			
KY Board of						77				- Anna-man		-	
Optometry			X	×	x	×		x	25 and over	A, P, Adj.		1	Hx, VA
LA Board of		-	_									-	
Optometry			x	×	X	x		X	×	A, P, Adj.			Hx, VA
THE DESIGNATION OF THE PARTY OF							-						Hx, VA, Peripheral Fields, Othe
MA Board of			×			×			x	A, P, Adj.			tests indicated by Hx or by sign
Optometry			_ ^						^	A, C, Auj.			or symptoms. K's
MD Board of									-		-		or symptoms, NS
Examiners in	×												
Optometry					3								
			-						-				
ME Board of		X											
Optometry			_						-				
MI Board of		×							1				
Optometry		-	-										
MN Board of			x	×	x	×			×	A, P, Adj.			Hx, Rx given, Referral if any
Optometry			1 m			500		/		- ANTENNA PROPERTY			The tax given, recental it ally
MO Board of	×												
Optometry	7												
MS Board of	×												
Optometry	, x							1					
MT Board of													
Optometry	×											ž.	
			-			L.							

#### Examination Requirements or Recommendations by General Categories

State		No Specified				Motilities/	Color	Neurological		Structure	Recording	AOA	
	No Response	Requirements	Refraction	Accommodation	Vergence	Motor Fields	Vision	Testing	Tonometry	Observation	Requirements	Guidelines	Other
NC Board of Optometry		×											
ND Board of								-		-			
Optometry					19							×	
NE Board of											-		
Optometry						1					1	×	
NH Board of									77.00				
Registration in	×												
Optometry	55												
NJ State Board							At 1st						Hx, VA, 1st exam: Stereopsis
of Optometrists			х		×	×	visit		x	A, P, Adj.			and K's, VF when indicated
NM Board of							-						
Examiners in	×				1	1							
Optometry													
NV Board of		ST WILLIAM COLUMN				2		71			1	22.22	
Optometry	×												
NY Board of	- NO.												
Optometry	×												
OH Board of		74											
Optometry		30											
OK Board of													
Examiners in	×												
Optometry													
OR Board of		1947											
Optometry		x											
													Hx, VA, Stereopsis,
PA Board of			×	×	x	×	×		x	A, P, Adj.			Confrontation Fields, Central
Optometry			_ ^	^	_ ^				^	24.12.00			Visual Fields after age 40, K's,
													Rx given
RI Board of			×		THE PARTY		×	1000	×	A, P, Adj.	New Rx		Hx, VA, Visual Fields when
Optometry			^							chi i i riuji	11011.154		Indicated, Stereopsis, Phorias
SC Board of		×		111111111111111111111111111111111111111									
Optometry													
SD Board of			×	×	×				×	A, P, Adj.			Hx, VA, Additional tests where
Optometry			- 5							2.00.00			indicated, Fusional ability
TN Board of			X		×	x			×	A, P, Adj.			VA, Confrontation Fields
Optometry			-										Try Commonweal Francisco
TX Board of	×												
Optometry													
UT Optometrist	×												
Licensing Board	200 200		-			-	-						
VA Board of						1					All inclusive re:		Hx, VA, Treatment
Optometry			X							A, P, Adj.	patient visit	1	Recommendations, Directions to
VT Board of													patient
		×											
Optometry WA Optometry					700		777-7			-			
Board		x											
										-			
WI Optometry			×	×	x	×			×	A, P, Adj.	Rx and VA		Hx, VA, K's
Examining Board			^	^	^	•			^	A, F, MJ.	AX and YA		IIX, VA, NS
WV Board of													
Optometry	×												
WY Board of								25.11	7/12-0-1	: :: : : : : : : : : : : : : : : : : :	+		V.7
Optometry		×											
							-		-				
Total Responses	18	12	18	11	13	14	4	5	17	18	4	3	

## Refraction Requirements or Recommendations by Subcategories

Non-Specific Subjective	Non-Specific Objective	Distance Subjective	Near Subjective	Keratometry	Static Retinoscopy	Auto Refractor	No Specifications
AK, CT, IL, IN, KS, NJ, PA, RI, SD, TN	IN, KS, MA, NJ, SD, TN	AK, KY, LA, MN, WI	IL, KY, MN, WI	MA, CT, NJ, PA, WI	CT, IL, KY, <b>PA</b> , RI, WI	KY*	AL, DE, VA

Note: Due to varied terminology, this subcategory may not be the exact description used by each state. Recommendations in **bold** type, requirements in plain type.

<sup>\*</sup> Kentucky requires that either retinscopy or autorefraction be done.

#### Appendix A

«DATA JON:addresses»
«assn»
«name»
«address 1»
«address 2»

May 15, 1996

We are writing to request information from your organization on the matter of complete vision exams (CVE). We are involved in a research project which is aimed at determining what is considered to constitute a CVE. We would like you to submit any requirements or recommendations that your organization provides to the optometric community in which it serves. It is, in part, our desire to help define standard of care, and minimally acceptable care, for a CVE. We are making this same request of state board and associations from all fifty states.

It is our hope that by doing this we can inform optometric practitioners of what is expected in other communities across the country when it comes to a CVE. This will provide optometrists with a benchmark they can use to evaluate their own practice standards. This may also have legal ramifications, especially in the managed care arena where optometrists are restricted in the time they can spend with each patient and minimal testing may not be possible.

Please send us all information that relates to your organization's expectations of a CVE by June 1. Results of this study will be submitted for publication, thereby making this information available to all optometrists.

Please send all information to: Dr. Scott Cooper Pacific University College of Optometry 2043 College Way Forest Grove, OR 97116 (503) 359-2771 Coopers@pacificu.edu

Please contact either Dr. Cooper (above) or one of the following if you have any questions concerning any part of this project. Thank you in advance for your participation.

John Harrington 2043 College Way UC Box 1997 Forest Grove, OR 97116 (H) (503) 359-0356 harringj@pacificu.edu

Jon Thomas 2043 College Way UC Box 1997 Forest Grove, OR 97116 (H) (503) 357-0657 thomasj@pacificu.edu

### Appendix B

«assn» «name» «address 1» «address 2»

May 16, 1996

We are writing in regards to a letter sent to you requesting information from your organization on the matter of complete vision exams (CVE). The letter sent to you included the following information:

We are involved in a research project which is aimed at determining what is considered to constitute a CVE. We would like you to submit any requirements or recommendations that your organization provides to the optometric community in which it serves. It is, in part, our desire to help define standard of care, and minimally acceptable care, for a CVE. We are making this same request of state board and associations from all fifty states.

It is our hope that by doing this we can inform optometric practitioners of what is expected in other communities across the country when it comes to a CVE. This will provide optometrists with a benchmark they can use to evaluate their own practice standards. This may also have legal ramifications, especially in the managed care arena where optometrists are restricted in the time they can spend with each patient and minimal testing may not be possible.

Please send us all information that relates to your organization's expectations of a CVE by April 24. Results of this study will be submitted for publication, thereby making this information available to all optometrists.

Although the original date has passed we are still collecting and compiling the data. We are still very interested in receiving any information your organization can supply. We greatly appreciate your participation. Please send us a reply by June 9.

Please send all information to:

Dr. Scott Cooper

Pacific University College of Optometry

2043 College Way

Forest Grove, OR 97116

(503) 359-2771

Fax (503) 359-2261

Coopers@pacificu.edu

Please contact either Dr. Cooper or one of the following if you have any questions concerning any part of this project.

John Harrington UC Box 1997 Forest Grove, OR 97116 (H) (503) 359-0356 harringj@pacificu.edu Jon Thomas UC Box 1997 Forest Grove, OR 97116 (H) (503) 357-0657 thomasj@pacificu.edu

#### APPENDIX C

Alabama Board of Optometry 512 5th St NW PO Box 448 Attalla, AL 35954

Alaska Board of Examiners in Optometry 418 N. Main Wasilla, AK 99687

Arizona Board of Optometry 5334 W Northern, Ste 106 Glendale, AZ 85301

Arkansas Board of Optometry PO Box 512 Searcy, AR 72143

California Board of Optometry 400 R St, Ste 3130 Sacramento, CA 95814-6200

Colorado Board of Optometric Examiners 3900 E Mexico Av #10 Denver, CO 80210

Connecticut Board of Examiners in Optometry 1156 Boston Post Rd Old Saybrook, CT 06475

Delaware Board of Examiners in Optometry 1100 Atlanta Rd Seaford, DE 19973

District of Columbia Optometric Society 8 Sheffield Manor Ct Silver Springs, MD 20904

Florida Board of Optometry 5062 Mobile Hwy Pensacola, FL 32506

Georgia Board of Optometry PO Box 8726 Savannah, GA 31412-8726 Hawaii Board of Examiners in Optometry PO Box 3469 Honolulu, HI 96801

Idaho Board of Optometry 380 S third W Soda Springs, ID 83276

Illinois Optometric Licensing and Disciplinary Committee 14 Lincolnshire Dr Danville, IL 61832

Indiana Optometric Association PO Box 3007 Kokomo, IN 48901

Indiana Optometry Board 4321 Fir St East Chicago, IN 46312

Iowa Board of Optometry Examiners Box 249, 4 W 5th St. Atlantic, IA 50022

Kansas Board of Optometry 1001 SW Mulvane Topeka, KS 66604

Kentucky Board of Optometry PO Box 283 Hodgenville, KY 42724

Louisiana Board of Optometry PO Box 644 Oakdale, LA 71464

Maine Board of Optometry State House Station #113 Augusta, ME 04333

Maryland Board of Examiners in Optometry 3510 Rosedale Rd Baltimore, MD 21215

Massachusetts Board of Optometry Arsenal Mall, 485 Arsenal St Watertown, MA 02172

Michigan Board of Optometry 46909 Greenridge Northville, MI 48167 Minnesota Board of Optometry 167 N McKnight Rd Maplewood, MN 55119

Mississippi Board of Optometry PO Box 737 Louisville, MS 39339

Missouri Board of Optometry Humana Health Car, 373 W 101st Terr Kansas City, MO 64114

Montana Board of Optometry 610 Carter Deer Lodge, MT 59722

Nebraska Board of Optometry 1501 M St Ord, NE 68862

Nevada Bard of Optometry PO Box 15645 Las Vegas, NV 89114-5645

New Hampshire Board of Registration in Optometry RFD 1, Box 329 Andover, NH 03216

New Jersey State Board of Optometrists PO Box 45012 Newark, NJ 07101

New Mexico Board of Examiners in Optometry 851 W Castillo Belen, NM 87002

New York Board of Optometry 8 Church St Saranac Lake, NY 12983

North Carolina Board of Optometry 131 Creekside Dr Forest City, NC 28043

North Dakota Board of Optometry 45 W Eighth St Dickinson, ND 58601 Ohio Board of Optometry 416 W Union St Athens, OH 45701

Oklahoma Board of Examiners in Optometry PO Box 719 Bristow, OK 74010

Oregon Board of Optometry PO Box 220 Ontario, OR 97914

Pennsylvania Board of Optometry PO Box 2649 Harrisburg, PA 17105

Rhode Island Board of Optometry Plaza Ctr, 68 Cumberland St. Woonsocket, RI 02895

South Carolina Board of Optometry 7499 Parklane Rd. #160 Columbia, SC 29223-7650

South Dakota Board of Optometry PO Box 370 Sturgis, SD 57785

Tennessee Board of Optometry PO Box 520 McKenzie, TN 38201

Texas Board of Optometry 4410 Goat Creek Rd Kerrville, TX 78028

Utah Optometrist Licensing Board 8210 Top of the World Dr Salt Lake City, UT 84121-6060

Vermont Board of Optometry 25 Park St Morrisville, VT 05661

Virginia Board of Optometry PO Box 667 Mechanicsvill, VA 23111-0667

Washington Optometry Board 1300 SE Quince St Olympia, WA 98504-7868 West Virginia Board of Optometry PO Box 34 Parkersburg, WV 26102

Wisconsin Optometry Examining Board 425 W Washington Av Madison, WI 53713

Wyoming Board of Optometry Barrett Bldg, erd Floor, 2301 Central Av Cheyenne, WY 82002