



















to non-practicing hygienists. Follow-up postcards were sent 10 days later in an effort to maximize the response rate. The response rate for the 789 surveys returned for this analysis was 40.25%. Chart 1 shows the response rate by state, without identifying the states' specific response rate.

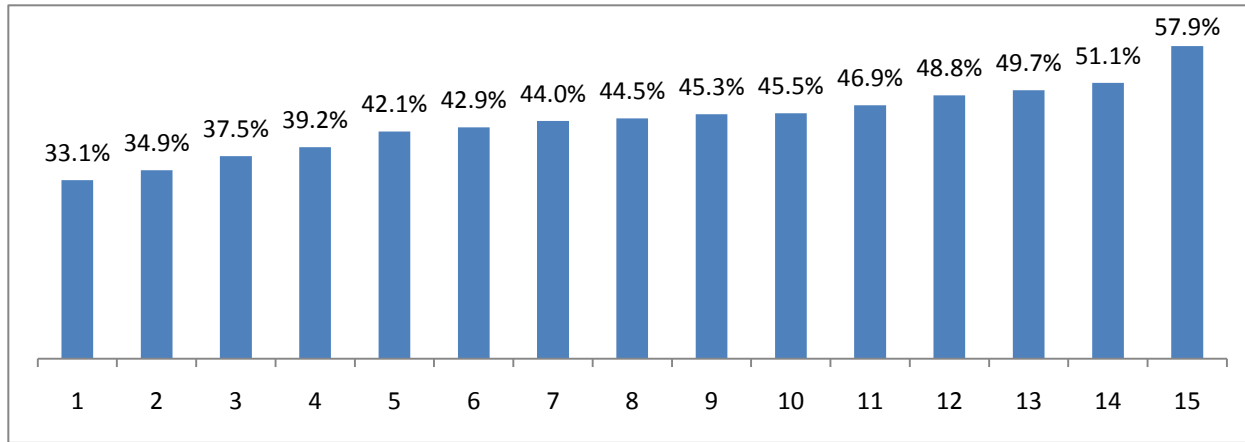


Chart 1 Response Rates for the 15 States Surveyed – Overall Response Rate: 40.25%

Count	Percent of Total	State
11	1.4	AK
57	7.2	AZ
214	27.1	CA
59	7.5	CO
24	3.0	ID
38	4.8	MO
9	1.1	MT
6	0.8	No State ID on Response
16	2.0	NM
23	2.9	NV
30	3.8	OK
39	4.9	OR
140	17.7	TX
24	3.0	UT
94	11.9	WA
5	0.6	WY

Table 1 Number of Responses by State of Practice

## **Analyze Survey Results and Provide Recommendations**

The survey responses were compiled, analyzed, and compared with content of WREB examinations. The subject matter experts on the practice analysis task force decided not to consider the following surveyed items for test inclusion: fluoride application; topical anesthetic gel application; measuring vital signs; and topical Oraquix application because these procedures are often performed by other staff members and were thought to be non-discriminatory items with regard to dental hygiene licensing. Tooth whitening and coronal polishing do not affect dental disease therapy outcomes and were therefore not considered for testing. Because pit and fissure sealants and nitrous oxide require supervision, they were not considered suitable for dental hygiene testing. Other procedures may be excluded from WREB testing if they are found to be extremely difficult to develop into examination exercises.

### Demographics

Slightly more than half of the respondents (396) reported practice of more than 15 years. The rest were evenly divided between those who reported practice between 7 and 15 years (192) and those who reported practice of 7 or fewer years (193). The education level of the majority of candidates was accounted for by associate degrees (396) and bachelor degrees (332). There were 26 with certificates and 26 with master degrees. There was no benefit in correlating responses according to these demographics. Rather, the collection of this data was to verify that a reasonable mix of respondents had been included in the survey

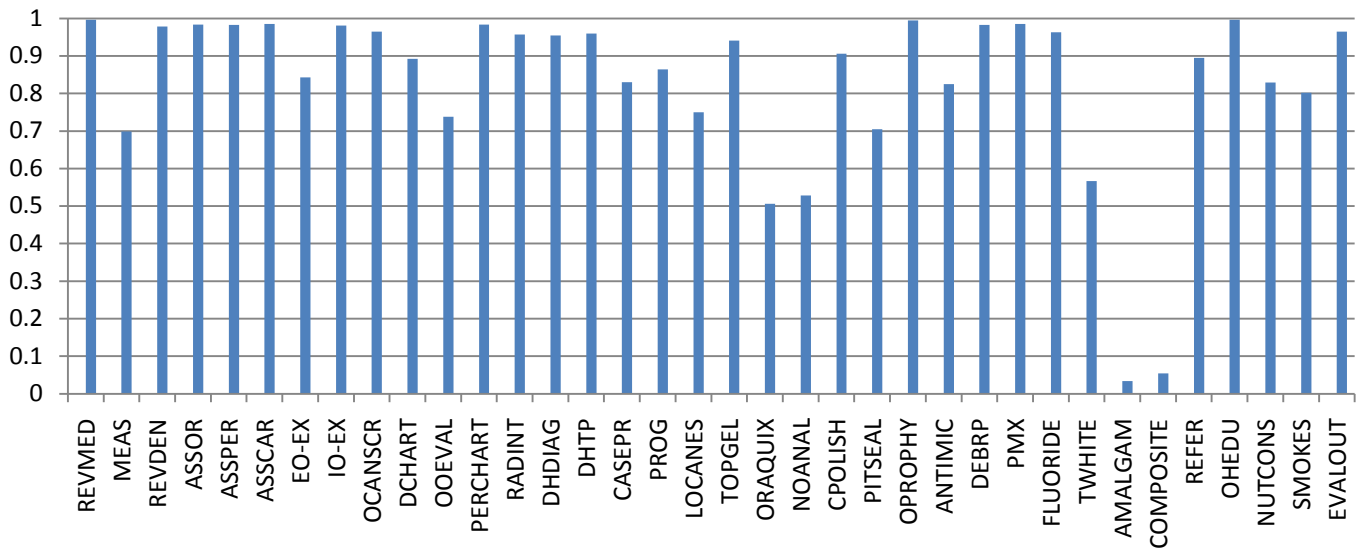
### Analysis of Frequency and Importance Responses

The results of the surveys were analyzed as proportions of responses rather than the conventional method of assigning points to the categories of responses and developing numerical scores from the responses for each survey question. This presentation was chosen with the intent of making the results more meaningful to those who will use the survey results. Correlations of response proportions were used to compare data from past WREB states and bordering states (CA, CO, and NV) along with a new WREB state (MO). Correlation of all the respondents with the respondents from the four states that are not or were not previous WREB member states, gave a high correlation of 0.88.

Note that the Charts 2 and 3 results show a strong positive relationship between the responses for frequency and importance. Table 4 provides a comprehensive way to summarize the survey results. The resulting order on the right side of Table 4 shows an order similar to the order on the left side.

Referencing Chart 2, chart 3 and Table 4, the committee recommends that any task that has a rank of 1 to 32 on the the new product values rank (on the right side of Table 4) be considered for testing. Some qualifying tasks are not presently tested by WREB. The computerized examination, that is being developed, will include evaluations of those tasks wherever possible. Two restorative procedures ranked low, but are being tested by WREB for the states that allow hygiene restorative procedures.

**Proportion of Responses That Were Checked Often or Occasionally**



**Percentage of Responses That Were Checked Often or Occasionally for CA, CO, MO, and NV**

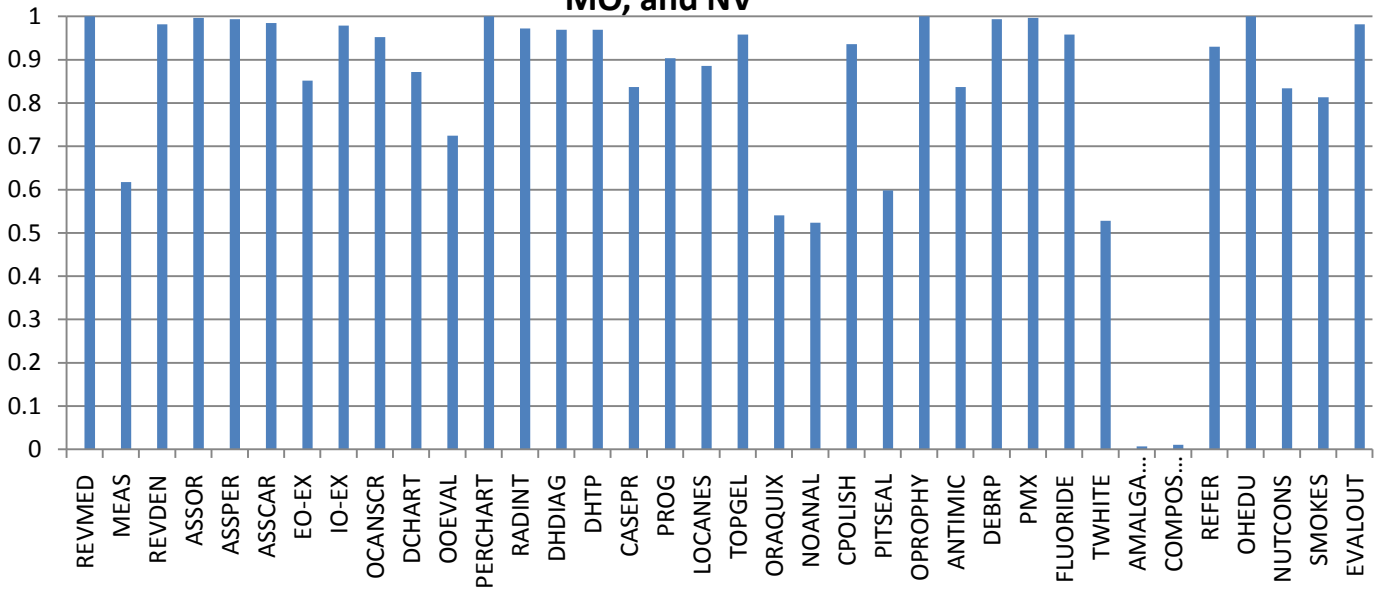
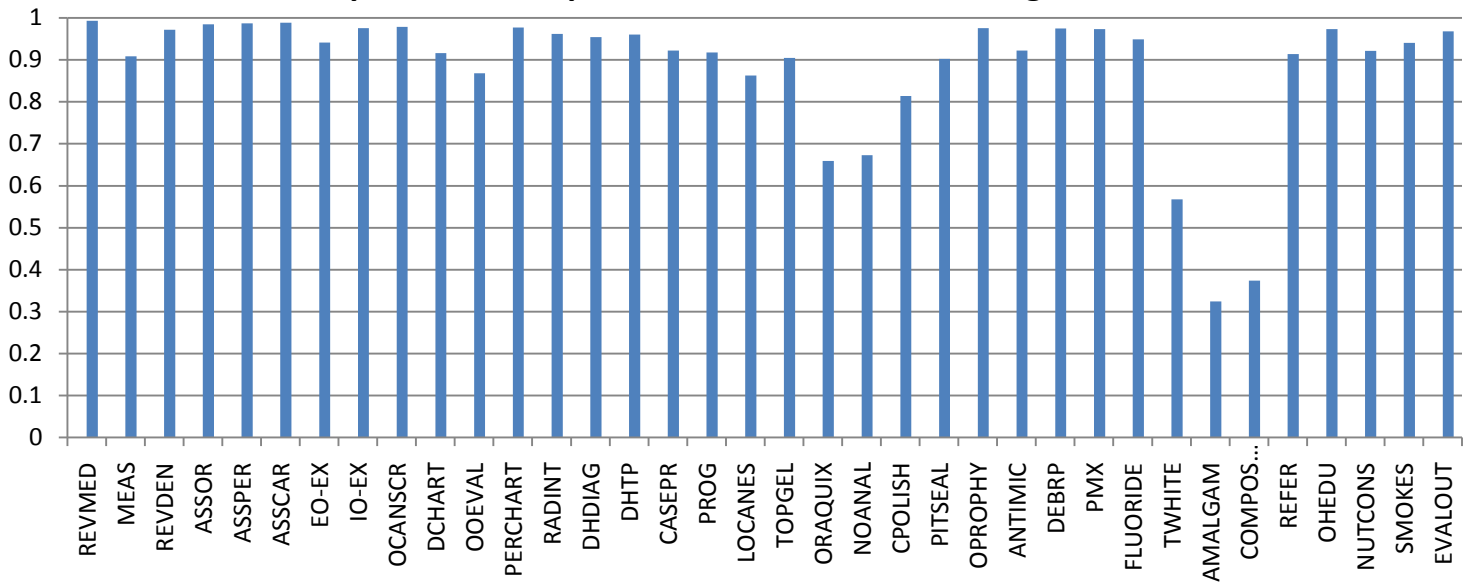


Chart 2 Survey Results for Frequency

**Proportion of Responses That Were Checked High or Moderate**



**Percentage of Responses That Were Checked High or Moderate for CA, CO, MO, and NV**

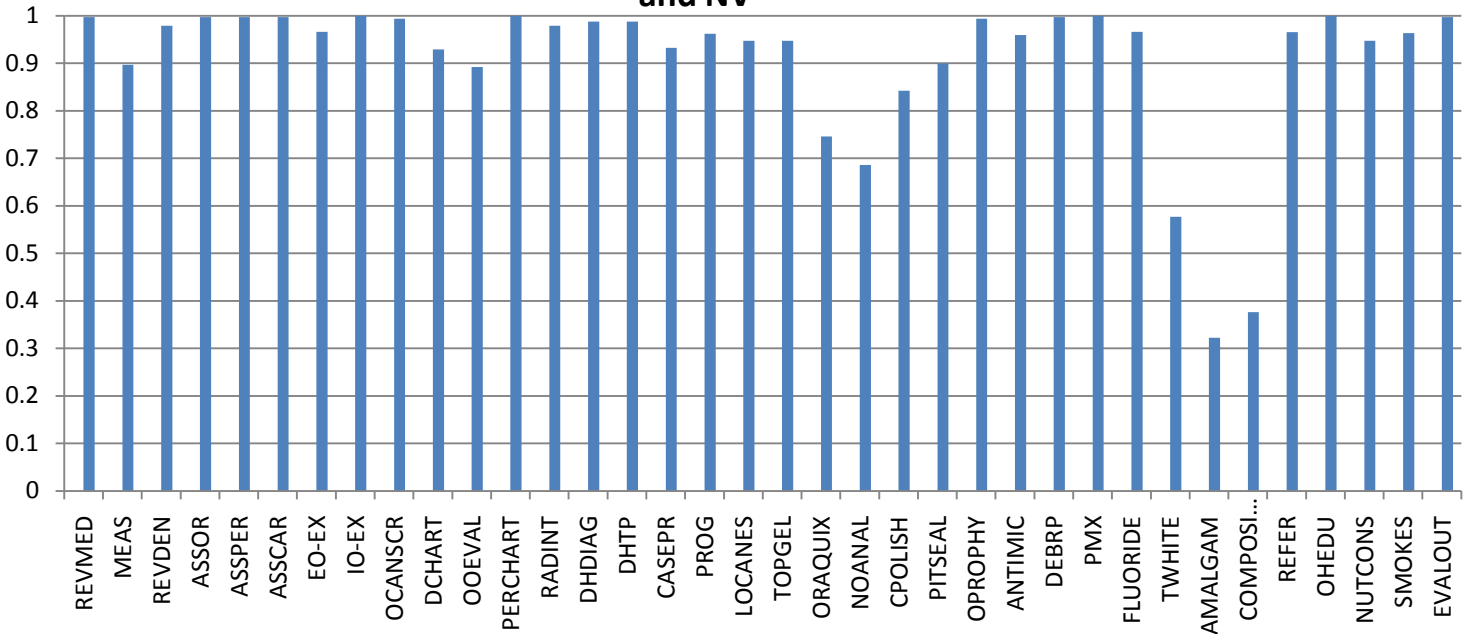


Chart 3 Survey Results for Importance

## Key for Survey Results Chart Column Abbreviations

<b>Abbreviation</b>	<b>Survey Item</b>
REVMED	Review & Update Medical History
MEAS	Measure Blood Pressure/Vital Signs
REVDEN	Review & Update Dental History
ASSOR	Assess Oral Hygiene Practices
ASSPER	Assess Periodontal Risk Factors
ASSCAR	Assess Caries Risk Factors
EO-EX	Extraoral Examination
IO-EX	Intraoral Examination
OCANSCR	Oral Cancer Screening
DCHART	Dental Charting
OOEVAL	Occlusion/Occlusal Trauma Evaluation
PERCHART	Periodontal Charting
RADINT	Radiographic Interpretation
DHDIAG	Dental Hygiene Diagnosis
DHTP	Dental Hygiene Treatment Plan
CASEPR	Case Presentation/Informed Consent
PROG	Determination of Prognosis
LOCANES	Administration of Local Anesthesia
TOPGEL	Application of Topical Anesthetic Gel
ORAQUIX	Application of Topical Oraqix
NOANAL	Nitrous Oxide Analgesia
CPOLISH	Coronal Polishing
PITSEAL	Pit & Fissure Sealants
OPROPHY	Oral Prophylaxis
ANTIMIC	Antimicrobial Application
DEBRP	Periodontal Debridement & Root Planing
PMX	Periodontal Maintenance Procedures
FLUORIDE	Fluoride Therapy
TWHITE	Tooth Whitening Procedures
AMALGAM	Place & Finish Amalgam Restorations
COMPOSITE	Place & Finish Composite Resin Restorations
REFER	Referral Recommendation
OHEDU	Oral Hygiene Education/Instruction
NUTCONS	Nutritional Counseling
SMOKES	Tobacco Cessation Counseling
EVALOUT	Evaluation of Dental Hygiene Treatment Outcomes

Table 2 Number of Survey Responses for Frequency of Each Practice Task

Category	All Respondents				CA, CO, MO, NV			
	often	occasionally	rarely	N/A or no resp	often	occasionally	rarely	N/A or no resp
REVMED	777	9	1	2	332	1	0	0
MEAS	286	265	235	3	86	119	127	1
REVDEN	675	97	13	4	277	49	6	1
ASSOR	749	27	3	10	319	10	1	3
ASSPER	728	47	9	5	312	18	2	1
ASSCAR	666	111	7	5	276	51	5	1
EO-EX	389	276	117	7	176	106	49	2
IO-EX	715	59	10	5	308	16	7	2
OCANSCR	656	105	24	4	280	37	16	9
DCHART	522	182	71	14	201	84	42	6
OOEVAL	250	332	193	14	89	148	90	6
PERCHART	740	36	8	5	320	12	0	1
RADINT	669	86	17	17	272	46	9	6
DHDIAG	709	44	19	17	296	22	10	5
DHTP	678	79	20	12	284	35	10	4
CASEPR	463	192	110	24	191	81	53	8
PROG	488	194	74	33	211	80	31	11
LOCANES	377	215	144	53	183	112	38	0
TOPGEL	422	320	43	4	186	132	14	1
ORAQUIX	159	240	349	41	73	101	148	11
NOANAL	110	307	335	37	29	138	152	14
CPOLISH	675	40	62	12	295	13	21	4
PITSEAL	259	297	215	18	78	117	131	7
OPROPHY	774	11	2	2	330	3	0	0
ANTIMIC	277	374	125	13	126	151	54	2
DEBRP	598	177	10	4	249	80	2	2
PMX	691	86	7	5	293	37	1	2
FLUORIDE	573	187	26	3	230	89	14	0
TWHITE	104	343	313	29	35	135	152	11
AMALGAM	11	16	615	147	1	1	275	56
COMPOSITE	21	22	600	146	1	2	273	57
REFER	331	375	65	18	145	162	23	3
OHEDU	765	21	0	3	994	12	0	0
NUTCONS	267	387	130	5	108	169	55	1
SMOKE	223	410	149	7	81	189	62	1
EVALOUT	614	147	19	9	264	60	6	3

Table 3 Number of Survey Responses for Importance of Each Practice Task

Category	All Respondents				CA, CO, MO, NV			
	High	Moderate	Low	N/A or no resp	High	Moderate	Low	N/A or no resp
REVMED	769	15	1	4	323	8	1	1
MEAS	409	308	58	14	151	144	34	4
REVDEN	616	151	12	10	264	59	7	3
ASSOR	723	54	4	8	307	22	1	3
ASSPER	737	42	3	7	310	20	1	2
ASSCAR	686	94	3	6	279	51	1	2
EO-EX	491	252	30	16	207	108	11	7
IO-EX	728	42	1	18	307	17	0	0
OCANSCR	731	41	2	15	307	18	2	6
DCHART	507	216	43	23	207	93	23	10
OOEVAL	340	345	80	24	136	154	35	8
PERCHART	747	24	1	17	319	10	0	4
RADINT	688	71	12	18	283	38	7	5
DHDIAG	698	55	6	30	295	25	4	9
DHTP	685	73	5	26	288	34	4	7
CASEPR	555	173	32	29	233	69	22	9
PROG	566	158	23	42	240	66	12	15
LOCANES	525	156	62	46	235	71	17	10
TOPGEL	471	243	52	23	212	93	17	11
ORAQUIX	254	266	197	72	111	118	78	26
NOANAL	243	288	210	48	90	124	98	21
CPOLISH	384	258	120	27	154	118	51	10
PITSEAL	534	178	49	28	202	85	32	14
OPROPHY	737	33	2	17	311	13	2	7
ANTIMIC	445	283	32	29	186	122	13	12
DEBRP	748	21	2	18	313	10	1	9
PMX	748	20	1	20	313	9	0	11
FLUORIDE	601	148	21	19	242	71	11	9
TWHITE	120	328	288	53	45	135	132	21
AMALGAM	141	115	375	158	41	46	183	63
COMPOSITE	170	125	332	162	45	55	166	67
REFER	500	221	34	34	220	89	11	13
OHEDU	745	23	0	21	317	8	0	8
NUTCONS	477	250	38	24	185	122	17	9
SMOKES	546	196	26	21	219	96	12	6
EVALOUT	652	112	6	19	274	51	1	7

Table 4 Ranking of Practice Tasks Based on Responses for Frequency and Importance

Practice Tasks Ordered by Product Values Found by Multiplying Often Frequency % and High Importance %			Practice Tasks Ordered by New Product Values Found by Multiplying (Often % + Frequent %) and (High% + Medium% Importance)			
Rank Based on Product Value	Task Abbreviation	Product Value	Rank Based on Original Product Value	<b>Rank Based on New Product Values</b>	Task Abbreviation	New Product Value
1	REVMED	0.960	1	<b>1</b>	REVMED	0.990
2	OPROPHY	0.916	13	<b>2</b>	ASSCAR	0.974
3	OHEDU	0.916	2	<b>3</b>	OPROPHY	0.971
4	PERCHART	0.888	6	<b>4</b>	ASSPER	0.970
5	ASSOR	0.870	3	<b>5</b>	OHEDU	0.970
6	ASSPER	0.862	5	<b>6</b>	ASSOR	0.969
7	IO-EX	0.836	4	<b>7</b>	PERCHART	0.961
8	PMX	0.830	8	<b>8</b>	PMX	0.959
9	DHDIAG	0.795	7	<b>9</b>	IO-EX	0.957
10	OCANSCR	0.770	14	<b>10</b>	DEBRP	0.957
11	DHTP	0.746	15	<b>11</b>	REVDEN	0.951
12	RADINT	0.739	10	<b>12</b>	OCANSCR	0.944
13	ASSCAR	0.734	16	<b>13</b>	EVALOUT	0.934
14	DEBRP	0.719	11	<b>14</b>	DHTP	0.922
15	REVDEN	0.668	12	<b>15</b>	RADINT	0.921
16	EVALOUT	0.643	17	<b>16</b>	FLUORIDE	0.914
17	FLUORIDE	0.553	9	<b>17</b>	DHDIAG	0.911
18	PROG	0.444	22	<b>18</b>	TOPGEL	0.851
19	DCHART	0.425	25	<b>19</b>	REFER	0.818
20	CPOLISH	0.416	19	<b>20</b>	DCHART	0.818
21	CASEPR	0.413	24	<b>21</b>	EO-EX	0.794
22	TOPGEL	0.319	18	<b>22</b>	PROG	0.793
23	LOCANES	0.318	21	<b>23</b>	CASEPR	0.766
24	EO-EX	0.307	27	<b>24</b>	NUTCONS	0.764
25	REFER	0.266	28	<b>25</b>	ANTIMIC	0.761
26	PITSEAL	0.222	29	<b>26</b>	SMOKES	0.754
27	NUTCONS	0.205	20	<b>27</b>	CPOLISH	0.737
28	ANTIMIC	0.198	23	<b>28</b>	LOCANES	0.648
29	SMOKES	0.196	31	<b>29</b>	OOEVAL	0.640
30	MEAS	0.188	26	<b>30</b>	PITSEAL	0.636
31	OOEVAL	0.137	30	<b>31</b>	MEAS	0.635
32	ORAQUIX	0.065	33	<b>32</b>	NOANAL	0.356
33	NOANAL	0.043	32	<b>33</b>	ORAQUIX	0.333
34	TWHITE	0.020	34	<b>34</b>	TWHITE	0.322
35	COMPOSITE	0.006	35	<b>35</b>	COMPOSITE	0.020
36	AMALGAM	0.002	36	<b>36</b>	AMALGAM	0.011



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# Appendix A

Survey Cover Letter





**WREB**  
***A National Dental and Dental Hygiene Testing Agency***

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July 27, 2007

Dear Dental Hygienist

The WREB is conducting a Practice Analysis Survey. WREB presently administers dental and dental hygiene licensing exams throughout the U.S. with results accepted for licensure in more than 30 states. The purpose of the survey is to determine the frequency and importance of the procedures that entry-level practitioners perform in dental hygiene. Having this data will assist us in the process of updating our practice analysis and then our exams. This will help us assure that our testing is consistent with the tasks that entry-level dental hygienists perform in practice.

This survey is being sent to a sampling of hygienists in all WREB member states and other Western states. We plan to publish the results of the study on our website for the benefit of all.

I would appreciate it if you could complete the attached survey at your earliest convenience and return it by August 22nd in the enclosed self-addressed stamped envelope. Thank you for your time and effort in assisting us in this important project.

If you have any questions, please contact Beth Cole, WREB Executive Director at 602-944-3315.

Sincerely,

Ermelinda Baca, RDH  
Chairman, Computer Simulation Committee



# Appendix B

Survey Instrument







**WREB**  
**A National Dental and Dental Hygiene Testing Agency**

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 Phone: 602-944-3315 Fax: 602-371-8131  
 www.wreb.org  
 generalinfo@wreb.org dentalinfo@wreb.org hygieneinfo@wreb.org

*[If not currently providing clinical dental hygiene services, please stop now and return this survey to the WREB office in the enclosed stamped envelope.]*

**SECTION I: DEMOGRAPHICS**

<p>1. What is your highest educational level?</p> <p>G Certificate          G Associate Degree          G Bachelor Degree          G Master Degree          G Doctoral Degree</p>	<p>3. In which state do you primarily provide clinical dental hygiene services?</p> <p>_____</p>
<p>2. How many years have you practiced dental hygiene?</p> <p>G 0 - 2 years          G &gt;2 - 7 years          G &gt;7 - 15 years          G &gt;15 years</p>	<p>4. In which practice setting(s) do you provide clinical dental hygiene services? (Check all that apply.)</p> <p>G Dental office          G Public health          G School-based program          G Hospitals/long-term care/homebound          G Public/private institution          G Other _____</p>

**SECTION II: CLINICAL DENTAL HYGIENE SERVICES**

- Please rate the following procedures by marking the appropriate box in each section with a check ( / ).
- Frequency:** How often do you perform the following procedures?  
**Importance:** How important is each procedure in **protecting the health and welfare** of patients?

Please complete the "Importance" section regardless of what you mark in the "Frequency" section (even if "N/A" is your response).

Procedures	Frequency			Importance		
	Often	Occasionally	Rarely or N/A	High	Moderate	Low
<b>General Health &amp; Oral Health Assessment</b>						
Review & Update Medical History						
Measure Blood Pressure/Vital Signs						
Review & Update Dental History						
Assess Oral Hygiene Practices						
Assess Periodontal Risk Factors						
Assess Caries Risk Factors						

Procedures	Frequency			Importance		
	Often	Occasionally	Rarely or N/A	High	Moderate	Low
<b>General Health &amp; Oral Health Assessment (cont'd)</b>						
Extraoral Examination						
Intraoral Examination						
Oral Cancer Screening						
Dental Charting						
Occlusion/Occlusal Trauma Evaluation						
Periodontal Charting						
Radiographic Interpretation						
<b>Diagnosis &amp; Planning</b>						
Dental Hygiene Diagnosis						
Dental Hygiene Treatment Plan						
Case Presentation/Informed Consent						
Determination of Prognosis						
<b>Implementation &amp; Evaluation</b>						
Administration of Local Anesthesia						
Application of Topical Anesthetic Gel						
Application of Topical Oraqix						
Nitrous Oxide Analgesia						
Coronal Polishing						
Pit & Fissure Sealants						
Oral Prophylaxis						
Antimicrobial Application						
Periodontal Debridement & Root Planing						
Periodontal Maintenance Procedures						
Fluoride Therapy						
Tooth Whitening Procedures						
Place & Finish Amalgam Restorations						
Place & Finish Composite Resin Restorations						
Referral Recommendation						
Oral Hygiene Education/Instruction						
Nutritional Counseling						
Tobacco Cessation Counseling						
Evaluation of Dental Hygiene Treatment Outcomes						