

2011 JCO Orthodontic Practice Study

ECONOMICS AND PRACTICE ADMINISTRATION

2011 JCO Orthodontic Practice Study

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This is the 16th biennial survey of orthodontic economics and administration conducted by JCO since 1981. Excerpts from these data tables, as well as other breakdowns of variables, were published in the October 2011 through January 2012 issues of the *Journal of Clinical Orthodontics*. Contact JCO at (303) 443-1720 or info@jco-online.com for information on ordering or accessing the articles or previous versions of these tables. Subscribers have automatic online access to all Practice Study articles since 1981 and tables since 2003.

METHODOLOGY AND LIMITATIONS

Questionnaires for the 2011 JCO Orthodontic Practice Study were mailed on April 21, 2011, to 10,956 orthodontists—a total that we believe should include virtually every specialty practitioner in the United States. As a reminder, an identical questionnaire was mailed to the same group on May 23.

In all, 385 forms were returned anonymously by business-reply mail, for a response rate of 3.5%. Responses were recorded on spreadsheets by an independent company, and analysis of the data was conducted using the Statistical Package for the Social Sciences.

As usual, any survey forms that were blank or illegible were not included. Furthermore, to ensure that only full-time solo practices were included in the tabulations, any respondents with less than one year in practice, more than one orthodontist-owner, or gross income of less than \$60,000 and fewer than 50 case starts in 2010 were excluded from the overall analysis. After those general exclusions, 314 valid questionnaires remained. Any individual responses that were clearly erroneous or outside the range of possibility were then recoded as missing so they would not inappropriately affect the data.

The tables of trends published in this article include only five of the previous 15 biennial Practice Studies, spaced at regular time intervals for purposes of comparison. In general, however, the trends have been consistent from one survey to the next. When the tables report annual figures such as income and numbers of cases, they always refer to the preceding calendar year—in this article, 2010.

We prefer to report the median—the middle response when all responses are sorted from highest to lowest—instead of the mean—the more familiar arithmetic average—because the median is less likely than the mean to be influenced by extremely high or low responses. When medians are calculated independently of other variables, separate categories cannot be added together to produce an expected total; in other words, while mean net income plus mean operating expenses would equal mean gross income, the corresponding medians may not equate.

Tests of statistical significance can be performed only with mean values. All Practice Studies have used a significance level of “p” = .01, rather than the more common .05, because the large number of variables on our questionnaire increases the possibility that the results could be affected by chance.

It should be remembered that a statistical relationship does not necessarily establish a causal relationship. For example, if respondents who used a particular management method are found to have significantly higher net income than those who did not use the method, we should not conclude that the management method was completely responsible for the additional net income.

Because of the anonymity of this survey, it would be impossible for us to verify the accuracy of each individual response. Based on the consistency of geographic representation and overall trends since the first Study was conducted in 1981, however, we believe these results to be a valid basis for comparing orthodontic practices in the United States.

2011 JCO Orthodontic Practice Study LIST OF TABLES

Number	Title	Page
1-1	Demographic Information (Medians)	3
1-2	Selected Variables (Means) by Sex.....	4
1-3	Mean Fees and Fee Increases	5
1-4	Mean Fees and Fee Increases by Geographic Region	6
1-5	Financial Policies (Medians)	7
1-6	Methods of Payment.....	8
1-7	Practice Activity (Medians)	8
1-8	Sources of Referrals.....	9
1-9	Practice Busyness	10
1-10	Practice Busyness by Geographic Region.....	11
1-11	Practice Management	12
1-12	Delegation	13
1-13	Practice-Building Methods	14
1-14	Management Service Organization Affiliation	15
1-15	Selected Variables (Means) by Management Service Affiliation .	15
2-1	Net Income by Selected Variables	16
2-2	Legal Status by Years in Practice	16
2-3	Net Income by High and Low Fees	16
2-4	Median Net Income by Geographic Region	17
2-5	Mean Net Income by Management Methods	18
2-6	Mean Net Income by Delegation	19
2-7	Mean Net Income by Practice-Building Methods	20
2-8	Selected Variables (Means) by Net Income Level	21
2-9	Net Income Level by Geographic Region	21
2-10	Sources of Referrals (Means) by Net Income Level	22
2-11	Mean Fees and Financial Policies by Net Income Level	22
2-12	Use of Management Methods by Net Income Level	23
2-13	Routine Delegation by Net Income Level	24
2-14	Practice-Building Methods by Net Income Level	25
3-1	Gross Income by Selected Variables	26
3-2	Gross Income by High and Low Fees	26
3-3	Median Gross Income by Geographic Region	27
3-4	Mean Gross Income by Management Methods	28
3-5	Mean Gross Income by Delegation	29
3-6	Mean Gross Income by Practice-Building Methods	30

LIST OF TABLES (continued)

Number	Title	Page
4-1	Median Total Expenses and Overhead Rate by Selected Variables	31
4-2	Median Total Expenses and Overhead Rate by Geographic Region	32
5-1	Median Case Starts and Active Cases by Selected Variables	33
5-2	Referrals by Number of Case Starts	33
5-3	Median Case Starts and Active Cases by Geographic Region	34
5-4	Case Starts by High and Low Fees	35
5-5	Mean Case Starts by Management Methods	35
5-6	Mean Case Starts by Delegation	36
5-7	Mean Case Starts by Practice-Building Methods	37
6-1	Mean Active Cases by Total Number of Employees	38
6-2	Mean Numbers of Selected and Total Staff	38
6-3	Percentages of Practices Employing Selected Staff	39
6-4	Mean Monthly Salaries for Full-Time Staff by Selected Variables ..	40
6-5	Mean Monthly Salaries for Full-Time Staff by Geographic Region	41
6-6	Benefits Provided for Employees by Selected Variables	42
6-7	Benefits Provided for Employees by Geographic Region	43
6-8	Staff Turnover Rate by Selected Variables	44
6-9	Selected Variables (Means) by Staff Turnover Rate	45
7-1	Practice Growth by Selected Variables	46
7-2	Practice Growth by Geographic Region	47
7-3	Selected Variables (Means) by Practice Growth	48
7-4	Sources of Referrals (Means) by Practice Growth	48
7-5	Practice Growth by Management Methods Used	49
7-6	Practice Growth by Routine Delegation	50
7-7	Use of Practice-Building Methods by Practice Growth	51
7-8	Degree of Influence of Factors Cited for Lack of Growth	52
7-9	Expectations for Practice Growth in 2011 by Selected Variables ..	53
7-10	Expectations for 2011 by 2010 Practice Growth	53
Appendix		
A-1	Selected Variables by Actual or Estimated Income Figures	54
A-2	Practice Activity (Medians) by Number of Orthodontist-Owners	55
A-3	Pearson's Correlation Coefficients for Selected Variables	55

TABLE 1-1
DEMOGRAPHIC INFORMATION (MEDIAN)

Age	54
Sex	
Male	86.9%
Female	13.1%
<i>Years in Orthodontic Practice</i>	23.0
<i>Number of Satellite Offices</i>	0.6*
<i>Main Office Community Size</i>	
Rural (less than 20,000)	15.4%
Small city (20,000-50,000)	28.0%
Large city (50,000-500,000)	33.4%
Metropolitan (more than 500,000)	23.2%
<i>Number of Treatment Chairs</i>	
Open bay	4.0
Private	1.0
Semiprivate	1.0
<i>Legal Status</i>	
Sole proprietorship	41.5%
Partnership	1.3%
Professional corporation	57.2%
<i>Hours/Week Full-Time Employees Worked</i>	34
<i>Weeks/Year Full-Time Employees Worked</i>	49
<i>Hours/Week Orthodontist-Owner Worked</i>	36
<i>2010 Continuing Education Course Days</i>	5
<i>2010 Continuing Education Meeting Days</i>	4
* mean value, median=1.0	

TABLE 1-2
SELECTED VARIABLES (MEANS) BY SEX

	Male	Female
Number of Years in Practice	23.8	17.9*
Number of Satellite Offices	0.6	0.3
Full-Time Employees	5.8	4.3
Part-Time Employees	1.6	1.7
New Patient Consults	348.1	304.6
Case Starts	239.5	193.4
Adult Case Starts	25.4%	23.3%
Active Treatment Cases	541.0	505.1
Adult Active Cases	22.4%	24.1%
Patients Covered by Third Party	44.7%	43.6%
Patients Covered by Managed Care	7.4%	5.8%
Offer Third-Party Financing Plan	65.5%	70.7%
Total Chairs	6.3	5.4
Patients per Day	47.9	41.9
Emergencies per Day	2.8	2.4
Broken Appointments per Day	3.3	2.8
Cancellations per Day	2.9	2.9
Gross Income	\$1,121,164	\$870,600
Overhead Rate	58.7	60.8
Net Income	\$454,329	\$339,346*
Net Income per Case	\$898	\$899
Child Case Fee	\$5,189	\$5,487
Full-Time Employee Hours/Week	33.9	35.3
Full-Time Employee Weeks/Year	47.7	48.4
Orthodontist-Owner Hours/Week	37.1	34.4
2010 Continuing Education Course Days	6.4	6.3
2010 Continuing Education Meeting Days	5.7	6.0

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 1-3
MEAN FEES AND FEE INCREASES**

	Child Fee (Permanent Dentition)	Adult Fee	Reported Fee Increase	
			2009	2010
<i>Years in Orthodontic Practice</i>				
2-5 years	\$5,035*	5,336*	1.3%	1.6%
6-10 years	5,714	6,096	1.3	2.2
11-15 years	5,197	5,734	1.2	1.6
16-20 years	5,314	5,764	3.9	4.0
21-25 years	5,315	5,752	2.5	2.7
26 or more years	5,103	5,427	2.1	2.8
<i>Legal Status</i>				
Sole proprietorship	5,258	5,621	2.7	3.1
Professional corporation	5,205	5,622	1.7	2.2
<i>Community Size</i>				
Rural (less than 20,000)	5,123	5,442	3.9	4.2
Small city (20,000-50,000)	5,347	5,690	2.0	2.1
Large city (50,000-500,000)	5,103	5,517	1.8	2.2
Metropolitan (more than 500,000)	5,338	5,825	1.9	2.9
COMPOSITE	5,228	5,626	2.2	2.6

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 1-4
MEAN FEES AND FEE INCREASES BY GEOGRAPHIC REGION**

	Child Fee (Permanent Dentition)	Adult Fee	Reported Fee Increase	
			2009	2010
New England				
(CT,ME,MA,NH,RI,VT)	\$5,490	\$5,824	2.1%	2.7%
Less than 20,000	5,384	5,654	2.2	2.9
20,000-50,000	5,735	NA	3.0	3.3
50,000-500,000	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA
Middle Atlantic				
(NJ,NY,PA)	5,167	5,561	4.7	4.4
Less than 20,000	5,162	5,414	11.8	11.8
20,000-50,000	5,553	5,935	2.8	1.7
50,000-500,000	NA	NA	NA	NA
More than 500,000	4,648	NA	3.2	5.2
South Atlantic				
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	5,466	6,004	1.7	2.1
Less than 20,000	NA	NA	NA	NA
20,000-50,000	5,399	5,766	1.7	1.7
50,000-500,000	5,063	5,561	1.2	1.9
More than 500,000	5,995	6,684	2.7	3.1
East South Central				
(AL,KY,MS,TN)	4,883	5,146	2.7	4.5
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	5,704	NA	NA
50,000-500,000	NA	5,534	NA	NA
More than 500,000	NA	NA	NA	NA
East North Central				
(IL,IN,MI,OH,WI)	5,356	5,641	1.2	2.0
Less than 20,000	NA	NA	NA	NA
20,000-50,000	5,378	5,704	1.4	2.5
50,000-500,000	5,286	5,534	1.1	1.3
More than 500,000	NA	NA	NA	NA
West North Central				
(IA,KS,MN,MO,NE,ND,SD)	5,174	5,607	2.7	3.5
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA
50,000-500,000	5,261	5,788	NA	3.1
More than 500,000	NA	NA	NA	NA
Mountain				
(AZ,CO,ID,MT,NV,NM,UT,WY)	5,017	5,312	1.7	2.0
Less than 20,000	5,107	5,440	2.3	2.3
20,000-50,000	NA	NA	NA	NA
50,000-500,000	NA	NA	0.7	0.5
More than 500,000	5,268	5,508	2.1	3.0
West South Central				
(AR,LA,OK,TX)	5,152	5,546	2.2	3.1
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA
50,000-500,000	5,278	5,638	3.4	3.8
More than 500,000	5,111	5,539	1.2	3.1
Pacific				
(AK,CA,HI,OR,WA)	5,149	5,662	2.1	1.7
Less than 20,000	NA	NA	NA	NA
20,000-50,000	4,705	NA	NA	NA
50,000-500,000	5,211	5,717	2.2	1.8
More than 500,000	5,218	5,818	2.7	2.2

TABLE 1-5
FINANCIAL POLICIES (MEDIANS)

<i>Initial Payment</i>	20%
<i>Payment Period</i>	22 months
<i>Fee Method</i>	
Fixed fee	92.9%
Fee range	6.1%
Open-ended	1.0%
<i>Frequency of Fee Adjustment</i>	
Every 3 months	0.3%
Every 6 months	3.6%
Every 12 months	35.7%
Every 24 months	16.7%
Every 36 months	4.9%
Not regularly	38.7%
<i>Services Not Included in Case Fee</i>	
Initial consultation	13.1%
Diagnostic records	40.5%
Phase I treatment	79.6%
Extended treatment time	30.2%
Broken appointment	31.8%
Occlusal equilibration	12.3%
Skeletal anchorage	53.5%
Laser treatment	47.8%
Retention	9.0%
Treatment of TMD	69.7%
Repair of broken appliances	69.9%
 <i>Fee Presented Before Records Taken</i>	
Yes	71.1%
No	28.9%
<i>Patients Routinely Billed</i>	
Yes	50.7%
No	49.3%
<i>Accept Assignment of Benefits</i>	
Yes	79.7%
No	20.3%
<i>Offer Third-Party Financing Plan (such as Orthodontists Fee Plan)</i>	
Yes	66.2%
No	33.8%
<i>Case Presentation Made</i>	
First Visit	63.2%
Second Visit	21.0%
Third Visit	15.5%
Other	0.3%

**TABLE 1-6
METHODS OF PAYMENT**

	% of Practices Using Method	Median % of Gross Income From Method (All Practices)
Cash and Personal Checks	91.4%	40.0%
Credit Cards	85.6	25.0
Insurance	81.6	20.0
Bank Plans	37.0	0.0
Medicaid/Government Plans	16.1	0.0
Managed Care/Capitation Plans	7.2	0.0
Direct Reimbursement	11.5	0.0

**TABLE 1-7
PRACTICE ACTIVITY (MEDIANS)**

Case Starts	200.0
Adult Case Starts	20.0%
Active Treatment Cases	450.0
Female Active Cases	58.2%
Adult Active Cases	17.8%
Adult Female Active Cases/Adult Cases	68.4%
Total New Patient Consults	303.0
Patients Covered by Third Party	40.0%
Gross Income	\$950,000
Operating Expense	\$550,000
Net Income	\$374,000
Current Delinquent Accounts	\$15,000
Overhead Rate	59%
Number of Patients/Day	45.0
Number of Emergencies/Day	2.0
Number of Broken Appointments/Day	3.0
Number of Cancellations/Day	2.0
Additional Cases That Could Have Been Handled in 2010	50.0
Additional Cases That Could Have Been Handled with More Staff	100.0

TABLE 1-8
SOURCES OF REFERRALS

	% of Practices Using Source	Median % of Referrals (All Practices)
Other Dentists (GPs)	96.8%	40.0%
Other Dentists (Specialists)	58.7	1.0
Patients and Parents	95.4	35.0
Personal Contacts	61.5	2.0
Transfers	56.5	1.0
Staff	44.5	0.0
Other Professionals	22.3	0.0
Dental Franchises	0.4	0.0
Dental Referral Service	2.8	0.0
Direct-Mail Advertising	7.1	0.0
Yellow Pages	29.0	0.0
Internet	55.8	1.0
Commercial Advertising	15.5	0.0
Drive-By Signage	25.4	0.0
Managed Care/Capitation	12.4	0.0

TABLE 1-9
PRACTICE BUSYNESS

	Too Busy to Treat All Persons Requesting Appointments	Provided Care to All Who Requested Appointments But Felt Overworked	Provided Care to All Who Requested Appointments —Did Not Feel Overworked	Not Busy Enough
<i>Years in Orthodontic Practice</i>				
2-5 years	0.0%	13.0%	30.4%	56.5%
6-10 years	0.0	11.1	59.3	29.6
11-15 years	0.0	5.9	26.5	67.6
16-20 years	0.0	10.3	41.0	48.7
21-25 years	1.6	8.2	45.9	44.3
26 or more years	0.0	8.8	37.7	53.5
<i>Legal Status</i>				
Sole proprietorship	0.8	9.0	43.4	46.7
Professional corporation	0.0	9.0	37.6	53.4
<i>Community Size</i>				
Rural (less than 20,000)	0.0	6.5	34.8	58.7
Small city (20,000-50,000)	0.0	9.3	37.2	53.5
Large city (50,000-500,000)	1.0	6.9	44.6	47.5
Metropolitan (more than 500,000)	0.0	13.2	38.2	48.5
<i>Geographical Region</i>				
New England	0.0	10.0	55.0	35.0
Middle Atlantic	0.0	9.8	48.8	41.5
South Atlantic	0.0	6.0	40.0	54.0
East South Central	0.0	9.1	54.5	36.4
East North Central	0.0	9.3	27.9	62.8
West North Central	0.0	18.8	43.8	37.5
Mountain	0.0	3.3	36.7	60.0
West South Central	0.0	15.2	48.5	36.4
Pacific	2.1	2.1	34.0	61.7
COMPOSITE	0.3	8.9	40.1	50.7

**TABLE 1-10
PRACTICE BUSYNESS BY GEOGRAPHIC REGION**

	Too Busy to Treat All Persons Requesting Appointments	Provided Care to All Who Requested Appointments But Felt Overworked	Provided Care to All Who Requested Appointments —Did Not Feel Overworked	Not Busy Enough
New England				
(CT,ME,MA,NH,RI,VT)	0%	10%	55%	35%
Less than 20,000	0	0	50	50
20,000-50,000	0	13	63	25
50,000-500,000	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA
Middle Atlantic				
(NJ,NY,PA)	0	9	49	42
Less than 20,000	0	0	44	56
20,000-50,000	0	10	43	48
50,000-500,000	NA	NA	NA	NA
More than 500,000	0	33	67	0
South Atlantic				
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	1	6	40	54
Less than 20,000	NA	NA	NA	NA
20,000-50,000	0	0	18	82
50,000-500,000	0	17	44	39
More than 500,000	0	0	47	53
East South Central				
(AL,KY,MS,TN)	0	9	55	36
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA
50,000-500,000	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA
East North Central				
(IL,IN,MI,OH,WI)	0	9	28	63
Less than 20,000	0	17	17	67
20,000-50,000	0	10	33	57
50,000-500,000	0	10	20	70
More than 500,000	0	0	33	67
West North Central				
(IA,KS,MN,MO,NE,ND,SD)	0	19	44	38
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA
50,000-500,000	0	0	43	57
More than 500,000	NA	NA	NA	NA
Mountain				
(AZ,CO,ID,MT,NV,NM,UT,WY)	2	3	37	60
Less than 20,000	0	0	33	67
20,000-50,000	NA	NA	NA	NA
50,000-500,000	0	0	33	67
More than 500,000	0	8	31	62
West South Central				
(AR,LA,OK,TX)	0	15	49	36
Less than 20,000	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA
50,000-500,000	0	7	71	21
More than 500,000	0	15	31	54
Pacific				
(AK,CA,HI,OR,WA)	2	2	34	62
Less than 20,000	NA	NA	NA	NA
20,000-50,000	0	0	14	86
50,000-500,000	3	0	41	55
More than 500,000	0	13	38	50

TABLE 1-11
PRACTICE MANAGEMENT

<i>Management Methods Used</i>	
Written philosophy of practice	54.7%
Written practice objectives	30.7
Written practice plan	20.3
Written practice budget	15.9
Office policy manual	81.8
Office procedure manual	54.1
Written job descriptions	56.8
Written staff training program	31.4
Staff meetings	84.5
Individual performance appraisals	58.4
Measurement of staff productivity	14.5
In-depth analysis of practice activity	30.4
Practice promotion plan	31.4
Dental management consultant	17.9
Patient satisfaction surveys	37.8
Employee with primary responsibility as communications supervisor	25.7
Progress reports	35.1
Post-treatment consultations	33.4
Pretreatment flow control system	48.6
Treatment flow control system	29.4
Cases beyond estimate report	34.8
Profit and loss statements	76.4
Delinquent account register	81.1
Monthly accounts-receivable reports	82.1
Monthly contracts-written reports	53.0
Measurement of case acceptance	53.0
 <i>Computer Activities Routinely Performed</i>	
Patient accounting/billing	94.6
Patient recall	84.5
Payroll	69.7
Inventory control	17.5
Insurance forms	84.2
Appointment scheduling	91.2
Practice analysis reports	81.1
Word processing/correspondence	96.0
Treatment records	60.9
Cephalometric analysis	58.6
Diagnostic imaging/storage	58.9
Cone-beam analysis	9.1
Monitor treatment progress	39.4
Practice newsletter	27.3
E-mail/Internet	92.3
Website service	70.7
Patient access to records	23.2
Patient access to account and schedule	42.8
Referring dentist access to records	14.8
Remote access by orthodontist and staff	45.5

**TABLE 1-12
DELEGATION**

	Routinely Delegated	Occasionally Delegated	Never Delegated
<i>Record-Taking</i>			
Impressions for study models	93.1%	2.0%	4.9%
X-rays	94.7	1.0	4.3
Cephalometric tracings	38.5	6.5	55.0
<i>Clinical</i>			
Impressions for appliances	86.1	5.0	8.9
Removal of residual adhesive	38.4	20.2	41.4
Fabrication of:			
Bands	58.1	11.3	30.6
Archwires	31.5	26.0	42.5
Removable appliances	45.8	19.0	35.2
Insertion of:			
Bands	35.6	14.4	50.0
Bonds	15.3	13.0	71.8
Archwires	57.4	24.4	18.2
Removable appliances	26.2	32.7	41.2
Adjustment of:			
Archwires	14.1	19.1	66.8
Removable appliances	10.1	24.9	65.0
Removal of:			
Bands	58.6	16.2	25.2
Bonds	60.1	11.6	28.4
Archwires	82.1	9.3	8.6
<i>Administrative</i>			
Case presentation	24.0	16.4	59.5
Fee presentation	75.3	10.5	14.1
Financial arrangements	87.2	6.9	5.9
Progress reports	28.5	39.8	31.8
Post-treatment conferences	17.2	23.0	59.8
Patient instruction and education	88.6	9.4	2.0

TABLE 1-13
PRACTICE-BUILDING METHODS

	Started in 2010	Started Prior to 2010	Perceived Effectiveness (Mean)*
Change practice location	3.1%	23.5%	3.4
Expand practice hours:			
Open one or more evenings/week	2.4	14.4	2.7
Open one or more Saturdays/month	0.8	10.2	2.6
Open a satellite office	3.9	22.7	3.2
Participate in community activities	5.1	56.9	2.5
Participate in dental society activities	3.5	52.9	2.2
Seek referrals from general dentists:			
Letters of appreciation	3.1	68.6	2.4
Entertainment	3.1	54.5	2.3
Gifts	4.3	71.0	2.3
Education of GPs	3.1	39.6	2.5
Reports to GPs	3.9	64.7	2.5
Seek referrals from patients and parents:			
Letters of appreciation	5.8	56.5	2.8
Follow-up calls after difficult appointments	5.1	62.0	3.0
Entertainment	2.0	22.0	2.5
Gifts	3.9	45.1	2.6
Seek referrals from staff members	4.3	52.5	2.2
Seek referrals from other professionals (non-dentists)	2.4	27.5	2.0
Treat adult patients	2.4	80.0	2.8
Improve scheduling:			
On time for appointments	4.3	69.4	3.0
On-time case finishing	3.5	62.0	3.0
Improve case presentation	3.9	45.9	3.1
Improve staff management	3.9	36.9	3.0
Improve patient education (communication, AV, etc.)	3.9	44.7	2.9
Expand services:			
TMD	0.8	24.3	2.2
Functional appliances	0.4	21.6	2.3
Lingual orthodontics	0.2	12.2	2.0
Surgical orthodontics	0.8	36.1	2.3
Temporary anchorage device	3.9	38.0	2.2
Invisalign treatment	3.1	60.8	2.8
Cosmetic/Laser treatment	2.7	19.2	2.3
Patient motivation techniques	3.9	44.3	2.6
No-charge initial visit	4.3	80.0	2.9
No-charge diagnostic records	2.7	26.3	2.7
No initial payment	1.2	20.0	2.6
Discount for up-front payment	2.7	77.3	2.4
Extended payment period	3.1	50.2	2.8
Practice newsletter	3.5	25.1	2.1
Practice website	5.1	68.6	2.7
Personal publicity in local media	2.7	20.4	2.2
Advertising:			
Yellow pages boldface listing	2.4	57.3	1.6
Yellow pages display advertising	2.4	30.2	1.7
Local newspapers	1.6	21.2	1.9
Local TV	1.6	7.8	2.0
Local radio	1.6	9.4	2.3
Online advertising	2.0	20.4	2.6
Direct-mail promotion	2.4	18.8	2.1
Managed care	2.4	17.3	2.5
Affiliation with management service organization	0.0	2.4	NA

*4 = excellent; 3 = good; 2 = fair; 1 = poor.

**TABLE 1-14
MANAGEMENT SERVICE ORGANIZATION AFFILIATION**

<i>Affiliated with Management Service Organization:</i>		Yes	2.3%	No	97.7%	
<i>Effects of Affiliation on:</i>	Highly Positive	Somewhat Positive	None	Somewhat Negative	Highly Negative	Mean
Referrals	33.3%	33.3%	33.3%	0.0	0.0%	2.00
Case Acceptance	0.0	83.3	16.7	0.0	0.0	2.17
Gross Income	16.7	66.7	16.7	0.0	0.0	2.00
Practice Efficiency	0.0	50.0	50.0	0.0	0.0	2.50

**TABLE 1-15
SELECTED VARIABLES (MEANS) BY
MANAGEMENT SERVICE AFFILIATION**

	Affiliated	Not Affiliated
Number of Years in Practice	23.3	23.0
Number of Satellite Offices	1.6	0.5*
Full-Time Employees	7.0	5.5
Part-Time Employees	0.4	1.6
New Patient Consults	535.5	338.6
Case Starts	326.9	229.2
Adult Case Starts	25.8%	25.0%
Active Treatment Cases	717.4	522.0
Adult Active Cases	22.7%	22.8%
Patients Covered by Third Party	31.0%	44.6%
Patients Covered by Managed Care	19.0%	7.0%
Offer Third-Party Financing Plan	57.1%	66.3%
Total Chairs	5.3	6.2
Patients per Day	55.3	46.4
Emergencies per Day	3.0	2.7
Broken Appointments per Day	5.7	3.1
Cancellations per Day	5.0	2.9
Gross Income	\$1,202,336	\$1,075,322
Overhead Rate	59.4	58.6
Net Income	\$539,015	\$437,293
Net Income per Case	\$744	\$915
Child Case Fee	\$4,928	\$5,237
Full-Time Employee Hours/Week	36.7	33.8
Full-Time Employee Weeks/Year	48.7	47.9
Orthodontist-Owner Hours/Week	42.2	36.4
2010 Continuing Education Course Days	4.2	6.4
2010 Continuing Education Meeting Days	4.2	5.8

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 2-1
NET INCOME BY SELECTED VARIABLES**

	Number	Median
<i>Years in Orthodontic Practice</i>		
2-5 years	14	\$288,967
6-10 years	21	493,633
11-15 years	29	360,000
16-20 years	30	400,000
21-25 years	51	450,000
26 or more years	87	300,000
<i>Legal Status</i>		
Sole proprietorship	101	379,000
Professional corporation	131	374,000
<i>Community Size</i>		
Rural (less than 20,000)	35	320,000
Small city (20,000-50,000)	66	387,719
Large city (50,000-500,000)	84	428,202
Metropolitan (more than 500,000)	48	296,500
COMPOSITE	235	374,000

*Differences between means in these categories are statistically significant at or below the .01 probability level.

**TABLE 2-2
LEGAL STATUS BY YEARS IN PRACTICE**

	Years in Practice				
	2-5	6-10	11-15	16-20	21-50
Sole Proprietorship	27.3%	25.9%	37.1%	55.3%	53.2%
Professional Corporation	72.7	74.1	62.9	44.7	46.8

**TABLE 2-3
NET INCOME BY HIGH AND LOW FEES**

	Number	Mean
Low Fee Practices (less than \$4,800**)	47	\$348,950
High Fee Practices (over \$5,500**)	67	\$492,786

**Child, permanent dentition.

**TABLE 2-4
MEDIAN NET INCOME BY GEOGRAPHIC REGION**

New England	
(CT,ME,MA,NH,RI,VT)	\$402,500
Less than 20,000	NA
20,000-50,000	500,000
50,000-500,000	NA
More than 500,000	NA
Middle Atlantic	
(NJ,NY,PA)	395,438
Less than 20,000	NA
20,000-50,000	450,000
50,000-500,000	NA
More than 500,000	NA
South Atlantic	
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	400,000
Less than 20,000	NA
20,000-50,000	265,000
50,000-500,000	443,000
More than 500,000	380,000
East South Central	
(AL,KY,MS,TN)	600,000
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	NA
More than 500,000	NA
East North Central	
(IL,IN,MI,OH,WI)	426,000
Less than 20,000	400,000
20,000-50,000	374,000
50,000-500,000	600,000
More than 500,000	359,950
West North Central	
(IA,KS,MN,MO,NE,ND,SD)	431,000
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	475,000
More than 500,000	NA
Mountain	
(AZ,CO,ID,MT,NV,NM,UT,WY)	270,094
Less than 20,000	282,500
20,000-50,000	NA
50,000-500,000	NA
More than 500,000	336,500
West South Central	
(AR,LA,OK,TX)	454,317
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	600,000
More than 500,000	252,324
Pacific	
(AK,CA,HI,OR,WA)	341,500
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	355,000
More than 500,000	181,500

TABLE 2-5
MEAN NET INCOME BY MANAGEMENT METHODS

	Used	Not Used
Written philosophy of practice	\$432,525	\$442,503
Written practice objectives	449,973	431,991
Written practice plan	386,454	448,985
Practice budget	424,817	439,311
Office policy manual	439,766	424,861
Office procedure manual	460,259	412,550
Written job descriptions	439,616	433,881
Written staff training program	416,125	447,304
Staff meetings	445,484	389,773
Individual performance appraisals	445,044	425,327
Measurement of staff productivity	505,814	426,682
In-depth analysis of practice activity	530,406	394,692*
Practice promotion plan	474,205	419,923
Dental management consultant	470,136	429,429
Patient satisfaction surveys	464,383	420,833
Employee with primary responsibility as communications supervisor	434,969	437,974
Progress reports	440,915	435,422
Post-treatment consultations	395,913	455,903
Pretreatment flow control system	449,669	421,151
Treatment flow control system	459,880	427,415
Cases beyond estimate report	456,983	425,703
Profit and loss statements	442,364	419,561
Delinquent account register	431,508	460,565
Monthly accounts-receivable reports	434,216	452,652
Monthly contracts-written reports	449,645	421,815
Measurement of case acceptance	486,760	381,491*

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 2-6
MEAN NET INCOME BY DELEGATION

	Routinely Delegated	Not Routinely Delegated
<i>Record-Taking</i>		
Impressions for study models	\$445,225	\$273,964
X-rays	438,046	309,283
Cephalometric tracings	476,152	388,250
<i>Clinical</i>		
Impressions for appliances	457,204	314,897
Removal of residual adhesive	444,095	428,990
Fabrication of:		
Bands	482,468	370,487*
Archwires	483,082	417,219
Removable appliances	474,738	392,066
Insertion of:		
Bands	464,045	416,508
Bonds	433,302	433,208
Archwires	471,168	388,878
Removable appliances	473,428	425,115
Adjustment of:		
Archwires	432,406	436,764
Removable appliances	491,097	428,729
Removal of:		
Bands	459,023	405,755
Bonds	455,951	406,274
Archwires	442,919	396,353
<i>Administrative</i>		
Case presentation	459,812	427,706
Fee presentation	444,913	406,042
Financial arrangements	441,134	392,625
Progress reports	516,337	398,011*
Post-treatment conferences	472,440	409,150
Patient instruction and education	440,856	381,248

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 2-7
MEAN NET INCOME BY PRACTICE-BUILDING METHODS

	Used	Not Used
Change practice location	\$ 446,923	\$ 426,719
Expand practice hours:		
Open one or more evenings/week	387,317	442,181
Open one or more Saturdays/month	332,066	444,737
Open a satellite office	490,529	410,670
Participate in community activities	412,552	464,042
Participate in dental society activities	384,278	495,239*
Seek referrals from general dentists:		
Letters of appreciation	447,332	393,941
Entertainment	496,595	345,468*
Gifts	441,370	401,029
Education of GPs	468,972	405,349
Reports to GPs	427,193	443,218
Seek referrals from patients and parents:		
Letters of appreciation	453,165	402,067
Follow-up calls after difficult appointments	439,212	418,148
Entertainment	482,015	415,647
Gifts	417,880	446,001
Seek referrals from staff members	419,961	449,989
Seek referrals from other professionals (non-dentists)	426,858	434,875
Treat adult patients	435,770	415,420
Improve scheduling:		
On time for appointments	437,177	418,510
On-time case finishing	455,279	390,200
Improve case presentation	462,387	400,988
Improve staff management	481,224	395,678
Improve patient education (communication, audiovisuals, etc.)	417,486	447,277
Expand services:		
TMD	390,246	444,922
Functional appliances	422,689	434,877
Lingual orthodontics	399,596	437,775
Surgical orthodontics	483,160	400,799
Temporary anchorage device	441,291	426,039
Invisalign treatment	431,069	434,170
Cosmetic/laser treatment	459,550	424,045
Patient motivation techniques	434,596	429,738
No-charge initial visit	437,711	393,928
No-charge diagnostic records	441,450	428,276
No initial payment	384,078	447,219
Discount for up-front payment	429,021	447,730
Extended payment period	446,803	413,248
Practice newsletter	449,482	424,747
Practice website	446,295	387,028
Personal publicity in local media	457,567	423,968
Advertising:		
Yellow pages boldface listing	437,610	422,474
Yellow pages display advertising	394,688	451,905
Local newspapers	418,446	436,571
Local TV	527,320	421,997
Local radio	483,793	424,303
Online advertising	532,621	403,263
Direct-mail promotion	460,221	424,318
Managed care	460,632	424,438
Affiliation with management service organization	NA	434,376

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 2-8
SELECTED VARIABLES (MEANS) BY NET INCOME LEVEL**

	High	Moderate	Low
Number of Satellite Offices	0.9	0.5	0.5
Full-Time Employees	8.0	5.9	3.8*
Part-Time Employees	1.8	1.5	1.3
Total New PT Consults	576.4	375.6	197.3*
Case Starts	387.9	235.5	138.7*
Adult Case Starts	29.3%	22.1%	27.5%
Active Treatment Cases	846.5	526.4	385.0*
Adult Active Cases	26.1%	17.5%	25.7%
Patients Covered by Third Party	46.1%	47.5%	42.3%
Patients Covered by Managed Care	7.8%	7.6%	6.7%
Offer Third-Party Financing Plan	72.6%	73.3%	52.3%
Total Chairs	6.5	5.9	5.5*
Annual Hours	1,668.2	1,621.8	1,570.7
Patients per Day	62.8	52.1	35.6*
Emergencies per Day	3.4	2.9	2.1*
Broken Appointments per Day	4.2	3.4	2.6*
Cancellations per Day	3.9	3.2	2.1*
Gross Income	\$1,723,380	\$1,077,190	\$598,840*
Overhead Rate	48.7	57.5	66.8*
Net Income	\$846,145	\$426,761	\$173,602*
Net Income per Case	\$1,276	\$918	\$614*

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 2-9
NET INCOME LEVEL BY GEOGRAPHIC REGION**

	High	Moderate	Low
New England (CT,ME,MA,NH,RI,VT)	30.8%	53.8%	15.4%
Middle Atlantic (NJ,NY,PA)	33.3	29.2	37.5
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	34.4	28.1	37.5
East South Central (AL,KY,MS,TN)	75.0	12.5	12.5
East North Central (IL,IN,MI,OH,WI)	35.7	35.7	28.6
West North Central (IA,KS,MN,MO,NE,ND,SD)	41.7	41.7	16.7
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	23.5	17.6	58.8
West South Central (AR,LA,OK,TX)	45.0	20.0	35.0
Pacific (AK,CA,HI,OR,WA)	16.1	38.7	45.2

**TABLE 2-10
SOURCES OF REFERRALS (MEANS) BY NET INCOME LEVEL**

	High	Moderate	Low
Other Dentists (GPs)	40.4%	47.3%	37.2%
Other Dentists (Specialists)	5.1	3.0	3.8
Patients and Parents	35.5	32.5	36.9
Personal Contacts	4.6	2.9	5.0
Transfers	1.7	1.8	1.1
Staff	1.2	1.0	2.6
Other Professionals	0.7	0.4	1.3
Dental Franchises	0.0	0.0	0.0
Dental Referral Service	0.3	0.7	0.0
Direct Mail Advertising	0.1	0.3	0.2
Yellow Pages	0.8	0.6	1.3
Internet	4.0	3.5	4.7
Commercial Advertising	1.3	0.3	0.9
Drive-By Signage	1.0	0.7	1.2
Managed Care/Capitation	2.0	1.7	3.0

**TABLE 2-11
MEAN FEES AND FINANCIAL POLICIES
BY NET INCOME LEVEL**

	High	Moderate	Low
Child Fee (Permanent Dentition)	\$5,366	\$5,155	\$5,149
Adult Fee	\$5,798	\$5,588	\$5,474
2009 Increase (Reported)	2.3%	1.9%	2.0%
2010 Fee Increase (Reported)	2.2%	2.3%	2.5%
Initial Payment	20.1%	24.9%	24.7%
Payment Period (months)	21.4	21.4	21.5

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 2-12
USE OF MANAGEMENT METHODS BY NET INCOME LEVEL

	High	Moderate	Low
Written philosophy of practice	52%	53%	53%
Written practice objectives	31	27	27
Written practice plan	14	15	24
Written practice budget	14	17	11
Office policy manual	83	82	82
Office procedure manual	60	42	52
Written job descriptions	59	60	64
Written staff training program	31	25	37
Staff meetings	86	85	85
Individual performance appraisals	60	63	58
Measurement of staff productivity	19	10	12
In-depth analysis of practice activity	41	30	24
Practice promotion plan	36	28	33
Dental management consultant	17	22	15
Patient satisfaction surveys	40	32	41
Employee with primary responsibility as communications supervisor	24	25	35
Progress reports	28	35	30
Post-treatment consultations	24	30	33
Pretreatment flow control system	50	42	53
Treatment flow control system	34	25	35
Cases beyond estimate report	41	32	36
Profit and loss statements	81	78	80

TABLE 2-13
ROUTINE DELEGATION BY NET INCOME LEVEL

	High	Moderate	Low
<i>Record-Taking</i>			
Impressions for study models	95%	97%	91%
X-rays	95	98	93
Cephalometric tracings	44	46	31
<i>Clinical</i>			
Impressions for appliances	92	89	82
Removal of residual adhesive	36	46	32
Fabrication of:			
Bands	69	65	48
Archwires	42	30	31
Removable appliances	53	54	40
Insertion of:			
Bands	38	37	32
Bonds	14	10	15
Archwires	70	56	55
Removable appliances	31	19	27*
Adjustment of:			
Archwires	16	10	17
Removable appliances	17	3	14
Removal of:			
Bands	61	60	53
Bonds	61	64	53
Archwires	83	82	85
<i>Administrative</i>			
Case presentation	25	25	21
Fee presentation	78	77	75
Financial arrangements	90	90	88
Progress reports	46	25	16*
Post-treatment conferences	23	20	8
Patient instruction and education	93	89	94

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 2-14
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL**

	High		Moderate		Low	
	Used	Rating†	Used	Rating†	Used	Rating†
Change practice location	25%	3.5	28%	3.5	25%	3.0
Expand practice hours:						
Open one or more evenings/week	18	3.1	16	2.8	18	2.5
Open one or more Saturdays/month	4	3.0	16	3.0	8	2.0
Open a satellite office	33	3.4	36	3.2	18	3.1
Participate in community activities	57	2.5	62	2.4	62	2.5
Participate in dental society activities	41	2.3	60	2.1	62	2.2
Seek referrals from general dentists:						
Letters of appreciation	75	2.7	74	2.6	65	2.2
Entertainment	73	2.4	68	2.5	43	2.2
Gifts	78	2.4	82	2.4	75	2.2
Education of GPs	47	2.6	44	2.9	33	2.5
Reports to GPs	67	2.6	74	2.6	72	2.4
Seek referrals from patients and parents:						
Letters of appreciation	61	3.1	54	2.7	58	2.5
Follow-up calls after difficult appointments	63	3.3	70	2.9	68	2.7
Entertainment	27	2.9	26	2.4	20	2.5
Gifts	51	2.9	46	2.6	53	2.4
Seek referrals from staff members	59	2.2	50	2.1	52	2.0
Seek referrals from other professionals (non-dentists)	27	1.7	24	1.9	30	2.5
Treat adult patients	86	2.9	78	2.9	78	2.7
Improve scheduling:						
On time for appointments	75	3.2	70	3.1	70	2.8
On-time case finishing	71	3.3	60	3.0	62	2.7
Improve case presentation	55	3.3	50	3.0	47	3.0
Improve staff management	55	3.2	36	3.1	40	2.8
Improve patient education (communication, AV, etc.)	53	3.0	46	2.8	52	2.9
Expand services:						
TMD	18	1.9	14	NA	30	2.0
Functional appliances	22	2.3	14	NA	30	2.5
Lingual orthodontics	14	2.0	12	NA	15	2.1
Surgical orthodontics	45	2.4	38	2.5	30	2.2
Temporary anchorage device	37	2.1	48	2.4	35	2.1
Invisalign treatment	65	3.2	64	2.5	60	2.7
Cosmetic/laser treatment	24	2.4	24	2.0	18	2.3
Patient motivation techniques	53	2.7	40	2.6	43	2.6
No-charge initial visit	86	3.0	90	2.9	87	2.8
No-charge diagnostic records	27	2.9	34	2.6	22	2.9
No initial payment	16	2.8	26	2.6	25	2.6
Up-front payment discount	88	2.3	74	2.5	85	2.5
Extended payment period	61	2.8	52	2.8	52	2.7
Practice newsletter	33	2.0	28	2.4	23	1.9
Practice website	84	2.8	78	2.6	67	2.6
Personal publicity in local media	27	2.2	24	1.8	23	2.3
Advertising:						
Yellow pages boldface listing	69	1.8	64	1.5	63	1.5
Yellow pages display advertising	31	1.7	28	1.6	43	1.6
Local newspapers	24	2.0	22	1.9	32	1.9
Local TV	16	2.3	6	NA	10	1.5
Local radio	22	2.6	4	NA	15	1.8
Online advertising	35	2.8	14	NA	23	2.7
Direct-mail promotion	25	2.0	16	2.7	23	1.9
Managed care	27	2.5	16	3.1	28	2.3
Affiliation with management service organization	2	NA	0	NA	3	NA

†4 = excellent; 3 = good; 2 = fair; 1 = poor.

TABLE 3-1
GROSS INCOME BY SELECTED VARIABLES

	Number	Median
<i>Years in Orthodontic Practice</i>		
2-5 years	17	\$868,867
6-10 years	23	1,180,000
11-15 years	32	991,000
16-20 years	33	1,060,000
21-25 years	55	1,118,143
26 or more years	98	811,500
<i>Legal Status</i>		
Sole proprietorship	105	900,000
Professional corporation	154	995,817
<i>Community Size</i>		
Rural (less than 20,000)	37	801,000
Small city (20,000-50,000)	73	1,000,000
Large city (50,000-500,000)	94	1,000,000
Metropolitan (more than 500,000)	56	840,000
COMPOSITE	263	950,000

*Differences between means in these categories are statistically significant at or below the .01 probability level.

TABLE 3-2
GROSS INCOME BY HIGH AND LOW FEES

	Number	Mean
Low Fee Practices (less than \$4,800**)	51	\$783,980*
High Fee Practices (more than \$5,500**)	72	\$1,248,916

*Differences between these groups are statistically significant at or below the .01 probability level.

**Child, permanent dentition.

TABLE 3-3
MEDIAN GROSS INCOME BY GEOGRAPHIC REGION

New England (CT,ME,MA,NH,RI,VT)	\$ 1,000,000
Less than 20,000	NA
20,000-50,000	1,200,000
50,000-500,000	NA
More than 500,000	NA
Middle Atlantic (NJ,NY,PA)	930,000
Less than 20,000	NA
20,000-50,000	1,010,000
50,000-500,000	NA
More than 500,000	NA
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	1,089,072
Less than 20,000	NA
20,000-50,000	812,081
50,000-500,000	1,060,000
More than 500,000	1,025,000
East South Central (AL,KY,MS,TN)	1,300,000
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	NA
More than 500,000	NA
East North Central (IL,IN,MI,OH,WI)	1,050,000
Less than 20,000	878,500
20,000-50,000	1,348,000
50,000-500,000	1,250,000
More than 500,000	856,500
West North Central (IA,KS,MN,MO,NE,ND,SD)	1,000,000
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	1,000,000
More than 500,000	NA
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	800,000
Less than 20,000	653,500
20,000-50,000	NA
50,000-500,000	891,500
More than 500,000	1,168,000
West South Central (AR,LA,OK,TX)	996,817
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	1,400,000
More than 500,000	650,000
Pacific (AK,CA,HI,OR,WA)	900,000
Less than 20,000	NA
20,000-50,000	NA
50,000-500,000	1,073,644
More than 500,000	808,000

TABLE 3-4
MEAN GROSS INCOME BY MANAGEMENT METHODS

	Used	Not Used
Written philosophy of practice	\$ 978,873	\$ 879,661
Written practice objectives	1,002,243	904,439
Written practice plan	958,102	928,508
Written practice budget	1,033,596	915,803
Office policy manual	964,557	799,836
Office procedure manual	970,353	892,334
Written job descriptions	959,016	902,338
Written staff training program	1,000,665	904,198
Staff meetings	978,013	698,058
Individual performance appraisals	1,026,680	804,864
Measurement of staff productivity	1,189,782	891,120
In-depth analysis of practice activity	1,165,117	833,755*
Practice promotion plan	1,104,088	856,817
Dental management consultant	1,309,279	852,766*
Patient satisfaction surveys	1,070,862	851,508
Employee with primary responsibility as communications supervisor	1,171,573	852,611*
Progress reports	945,418	928,597
Post-treatment consultations	911,599	946,019
Pretreatment flow control system	1,031,391	842,721
Treatment flow control system	1,117,139	858,483*
Cases beyond estimate report	1,106,508	842,713*
Profit and loss statements	972,276	812,567
Delinquent account register	961,961	816,844
Monthly accounts-receivable reports	975,431	746,874
Monthly contracts-written reports	1,052,536	801,194*
Measurement of case acceptance	1,071,588	779,674*

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 3-5
MEAN GROSS INCOME BY DELEGATION**

	Routinely Delegated	Not Routinely Delegated
<i>Record-Taking</i>		
Impressions for study models	\$ 1,117,113	\$ 549,258*
X-rays	1,104,647	581,346
Cephalometric tracings	1,210,196	962,300
<i>Clinical</i>		
Impressions for appliances	1,148,016	718,088*
Removal of residual adhesive	1,253,265	972,186*
Fabrication of:		
Bands	1,246,118	849,358*
Archwires	1,221,625	1,021,189
Removable appliances	1,246,995	894,867*
Insertion of:		
Bands	1,312,522	953,003*
Bonds	1,430,700	1,016,613*
Archwires	1,234,810	866,854*
Removable appliances	1,255,104	1,025,035
Adjustment of:		
Archwires	1,238,640	1,057,185
Removable appliances	1,272,610	1,061,563
Removal of:		
Bands	1,188,301	926,445*
Bonds	1,181,575	934,458*
Archwires	1,138,391	810,589*
<i>Administrative</i>		
Case presentation	1,236,368	1,034,413
Fee presentation	1,138,210	895,858
Financial arrangements	1,111,828	861,829
Progress reports	1,321,558	983,929*
Post-treatment conferences	1,309,994	1,034,236
Patient instruction and education	1,104,132	891,182

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 3-6
MEAN GROSS INCOME BY PRACTICE-BUILDING METHODS

	Used	Not Used
Change practice location	\$1,105,481	\$887,035
Expand practice hours:		
Open one or more evenings/week	861,870	962,207
Open one or more Saturdays/month	724,000	972,583
Open a satellite office	1,172,655	862,608*
Participate in community activities	1,942,246	950,241
Participate in dental society activities	929,921	965,221
Seek referrals from general dentists:		
Letters of appreciation	979,758	857,674
Entertainment	1,074,993	768,744*
Gifts	999,448	780,225
Education of GPs	1,081,249	843,782
Reports to GPs	972,910	884,862
Seek referrals from patients and parents:		
Letters of appreciation	990,638	874,993
Follow-up calls after difficult appointments	988,581	857,153
Entertainment	1,119,162	890,615
Gifts	1,021,250	872,246
Seek referrals from staff members	995,487	879,115
Seek referrals from other professionals (non-dentists)	916,703	957,424
Treat adult patients	925,129	1,039,361
Improve scheduling:		
On time for appointments	951,715	927,250
On-time case finishing	1,003,194	835,395
Improve case presentation	1,018,851	872,299
Improve staff management	1,118,829	825,762*
Improve patient education (communication, audiovisuals, etc.)	987,746	905,097
Expand services:		
TMD	918,439	954,283
Functional appliances	1,063,545	912,009
Lingual orthodontics	885,874	955,054
Surgical orthodontics	1,048,167	885,221
Temporary anchorage device	1,046,572	872,061
Invisalign treatment	1,031,186	793,097
Cosmetic/laser treatment	1,231,327	864,794*
Patient motivation techniques	1,079,913	819,841
No-charge initial visit	1,004,756	625,641*
No-charge diagnostic records	1,058,005	899,204
No initial payment	990,081	933,038
Discount for up-front payment	1,014,623	667,945*
Extended payment period	1,069,485	803,347*
Practice newsletter	1,197,044	844,308*
Practice website	1,046,969	659,972*
Personal publicity in local media	1,170,072	877,622
Advertising:		
Yellow pages boldface listing	982,555	890,291
Yellow pages display advertising	1,019,634	909,411
Local newspapers	1,105,101	898,235
Local TV	1,417,198	896,258*
Local radio	1,343,186	896,207*
Online advertising	1,247,207	858,371*
Direct-mail promotion	1,202,149	876,280*
Managed care	1,099,653	907,637
Affiliation with management service organization	692,667	951,374

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 4-1
MEDIAN TOTAL EXPENSES AND OVERHEAD RATE
BY SELECTED VARIABLES

	Total Expenses	Overhead Rate
<i>Years in Orthodontic Practice</i>		
2-5 years	\$ 605,467	.68
6-10 years	685,000	.58
11-15 years	593,700	.63
16-20 years	560,500	.60
21-25 years	566,600	.53
26 or more years	490,000	.59
<i>Legal Status</i>		
Sole proprietorship	500,000	.55
Professional corporation	573,695	.61
<i>Community Size</i>		
Rural (less than 20,000)	480,000	.61
Small city (20,000-50,000)	535,000	.58
Large city (50,000-500,000)	600,000	.58
Metropolitan (more than 500,000)	597,500	.60
COMPOSITE	550,000	.59

TABLE 4-2
MEDIAN TOTAL EXPENSES AND OVERHEAD RATE
BY GEOGRAPHIC REGION

	Total Expenses	Overhead Rate
New England		
(CT,ME,MA,NH,RI,VT)	\$ 600,000	.58
Less than 20,000	NA	NA
20,000-50,000	600,000	.60
50,000-500,000	NA	NA
More than 500,000	NA	NA
Middle Atlantic		
(NJ,NY,PA)	422,000	.51
Less than 20,000	NA	NA
20,000-50,000	500,000	.51
50,000-500,000	NA	NA
More than 500,000	NA	NA
South Atlantic		
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	678,000	.60
Less than 20,000	NA	NA
20,000-50,000	520,000	.55
50,000-500,000	700,000	.56
More than 500,000	852,804	.62
East South Central		
(AL,KY,MS,TN)	600,000	.53
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	NA	NA
More than 500,000	NA	NA
East North Central		
(IL,IN,MI,OH,WI)	600,000	.58
Less than 20,000	NA	NA
20,000-50,000	566,000	.67
50,000-500,000	900,000	.61
More than 500,000	534,350	.57
West North Central		
(IA,KS,MN,MO,NE,ND,SD)	525,589	.54
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	450,000	.47
More than 500,000	NA	NA
Mountain		
(AZ,CO,ID,MT,NV,NM,UT,WY)	500,000	.63
Less than 20,000	400,000	.62
20,000-50,000	NA	NA
50,000-500,000	NA	NA
More than 500,000	528,555	.59
West South Central		
(AR,LA,OK,TX)	515,000	.60
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	750,000	.63
More than 500,000	521,306	.62
Pacific		
(AK,CA,HI,OR,WA)	605,467	.64
Less than 20,000	NA	NA
20,000-50,000	400,000	.57
50,000-500,000	648,123	.62
More than 500,000	693,735	.75

**TABLE 5-1
MEDIAN CASE STARTS AND ACTIVE CASES
BY SELECTED VARIABLES**

	Case Starts	Active Cases
<i>Years in Orthodontic Practice</i>		
2-5 years	198	450
6-10 years	250	600
11-15 years	210	425
16-20 years	200	485
21-25 years	218	500
26 or more years	169	388
<i>Legal Status</i>		
Sole proprietorship	200	403
Professional corporation	220	475
<i>Community Size</i>		
Rural (less than 20,000)	190	400
Small city (20,000-50,000)	223	470
Large city (50,000-500,000)	233	510
Metropolitan (more than 500,000)	188	400
COMPOSITE	200	450

**TABLE 5-2
REFERRALS BY NUMBER OF CASE STARTS**

Case Starts	Number of Respondents	Mean % of General Dentist Referrals	Mean % of Patient Referrals
50-150	77	38.6	35.2
More than 300	62	41.2	35.6

**TABLE 5-3
MEDIAN CASE STARTS AND ACTIVE CASES
BY GEOGRAPHIC REGION**

	Case Starts	Active Cases
New England		
(CT,ME,MA,NH,RI,VT)	203	440
Less than 20,000	202	410
20,000-50,000	234	600
50,000-500,000	NA	NA
More than 500,000	NA	NA
Middle Atlantic		
(NJ,NY,PA)	200	400
Less than 20,000	201	NA
20,000-50,000	200	475
50,000-500,000	NA	NA
More than 500,000	195	425
South Atlantic		
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	242	610
Less than 20,000	NA	NA
20,000-50,000	218	559
50,000-500,000	259	650
More than 500,000	196	448
East South Central		
(AL,KY,MS,TN)	240	500
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	NA	NA
More than 500,000	NA	NA
East North Central		
(IL,IN,MI,OH,WI)	216	410
Less than 20,000	158	275
20,000-50,000	251	510
50,000-500,000	270	575
More than 500,000	195	363
West North Central		
(IA,KS,MN,MO,NE,ND,SD)	206	480
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	206	473
More than 500,000	NA	NA
Mountain		
(AZ,CO,ID,MT,NV,NM,UT,WY)	170	393
Less than 20,000	156	NA
20,000-50,000	NA	NA
50,000-500,000	167	NA
More than 500,000	180	359
West South Central		
(AR,LA,OK,TX)	221	496
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	250	680
More than 500,000	189	400
Pacific		
(AK,CA,HI,OR,WA)	186	400
Less than 20,000	NA	NA
20,000-50,000	190	NA
50,000-500,000	230	500
More than 500,000	147	NA

TABLE 5-4
CASE STARTS BY HIGH AND LOW FEES

	Number of Respondents	Mean
Low Fee Practices (less than \$4,800*)	50	204
High Fee Practices (over \$5,500*)	75	246

*Child, permanent dentition.

TABLE 5-5
MEAN CASE STARTS BY MANAGEMENT METHODS

	Used	Not Used
Written philosophy of practice	235.9	236.1
Written practice objectives	246.0	231.7
Written practice plan	215.3	240.8
Written practice budget	233.3	236.5
Office policy manual	237.5	228.8
Office procedure manual	241.9	229.4
Written job descriptions	237.7	233.7
Written staff training program	243.2	232.6
Staff meetings	240.9	207.1
Individual performance appraisals	245.9	221.0
Measurement of staff productivity	286.5	227.6
In-depth analysis of practice activity	266.1	222.6
Practice promotion plan	265.0	222.8
Dental management consultant	285.7	223.8*
Patient satisfaction surveys	264.0	218.4
Employee with primary responsibility as communications supervisor	263.3	225.9
Progress reports	238.7	234.6
Post-treatment consultations	223.7	241.6
Pretreatment flow control system	250.1	223.1
Treatment flow control system	258.3	227.2
Cases beyond estimate report	265.2	219.4
Profit and loss statements	241.7	215.8
Delinquent account register	237.0	231.5
Monthly accounts-receivable reports	236.0	235.5
Monthly contracts-written reports	252.8	216.7
Measurement of case acceptance	259.7	209.5*

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 5-6
MEAN CASE STARTS BY DELEGATION**

	Routinely Delegated	Not Routinely Delegated
<i>Record-Taking</i>		
Impressions for study models	239.3	134.7*
X-rays	239.9	145.7
Cephalometric tracings	259.3	207.1*
<i>Clinical</i>		
Impressions for appliances	247.2	152.4*
Removal of residual adhesive	262.0	213.6*
Fabrication of:		
Bands	261.8	198.0*
Archwires	247.9	227.7
Removable appliances	256.2	203.6*
Insertion of:		
Bands	268.4	211.0*
Bonds	293.9	221.2*
Archwires	253.9	203.6*
Removable appliances	260.5	225.5
Adjustment of:		
Archwires	260.5	229.1
Removable appliances	273.8	229.0
Removal of:		
Bands	251.0	205.2
Bonds	250.3	205.6
Archwires	241.4	194.6
<i>Administrative</i>		
Case presentation	251.1	226.7
Fee presentation	240.6	207.4
Financial arrangements	237.5	200.8
Progress reports	265.5	218.5
Post-treatment conferences	287.1	222.3
Patient instruction and education	233.1	227.8

*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 5-7
MEAN CASE STARTS BY PRACTICE-BUILDING METHODS

	Used	Not Used
Change practice location	259.3	227.2
Expand practice hours:		
Open one or more evenings/week	215.8	239.6
Open one or more Saturdays/month	184.6	241.6
Open a satellite office	290.8	215.7*
Participate in community activities	232.5	240.5
Participate in dental society activities	231.6	240.6
Seek referrals from general dentists:		
Letters of appreciation	248.0	204.5
Entertainment	263.2	197.2*
Gifts	246.4	200.8
Education of GPs	258.6	217.1
Reports to GPs	238.6	221.6
Seek referrals from patients and parents:		
Letters of appreciation	245.6	220.6
Follow-up calls after difficult appointments	238.9	228.8
Entertainment	257.8	228.6
Gifts	243.1	227.8
Seek referrals from staff members	237.3	233.2
Seek referrals from other professionals (non-dentists)	225.3	239.9
Treat adult patients	236.0	233.5
Improve scheduling:		
On time for appointments	238.1	228.3
On-time case finishing	248.8	210.6
Improve case presentation	255.3	215.2
Improve staff management	275.8	208.1*
Improve patient education (communication, audiovisuals, etc.)	255.6	217.4
Expand services:		
TMD	231.1	237.0
Functional appliances	259.5	229.1
Lingual orthodontics	212.6	239.4
Surgical orthodontics	259.6	221.9
Temporary anchorage device	260.2	218.1
Invisalign treatment	243.4	220.9
Cosmetic-laser treatment	282.2	222.0*
Patient motivation techniques	248.1	223.1
No-charge initial visit	242.6	189.2
No-charge diagnostic records	257.3	225.8
No initial payment	234.3	235.9
Discount for up-front payment	244.1	195.5
Extended payment period	257.2	210.4
Practice newsletter	280.0	217.7*
Practice website	248.4	196.3
Personal publicity in local media	269.1	224.5
Advertising:		
Yellow pages boldface listing	241.8	225.4
Yellow pages display advertising	237.1	234.7
Local newspapers	237.5	234.9
Local TV	273.1	231.3
Local radio	263.6	231.6
Online advertising	276.9	223.2
Direct-mail promotion	268.5	225.7
Managed care	251.2	231.6
Affiliation with management service organization	255.0	235.1

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 6-1
MEAN ACTIVE CASES BY TOTAL NUMBER OF EMPLOYEES**

	0	1	2	3	4	5	6	7	8	9	10+
Full-Time	260	315	253	462	405	481	483	554	706	816	1131*
Part-Time	542	558	494	645	391	421	874	NA	NA	NA	NA

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 6-2
MEAN NUMBERS OF SELECTED AND TOTAL STAFF**

	Receptionist/ Secretary		Chairside Assistant		Lab Technician		Office Manager		TOTAL	
	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Part- Time
<i>Case Starts</i>										
Less than 150	0.9	0.3	1.4	0.7	0.1	0.1	0.1	0.1	3.0	1.5
150-200	1.1	0.3	2.1	0.7	0.2	0.1	0.2	0.1	4.3	1.3
201-250	1.1	0.4	3.1	0.8	0.3	0.2	0.2	0.0	5.9	1.6
251-350	1.5	0.3	3.4	0.7	0.3	0.2	0.3	0.1	7.0	1.7
More than 350	2.1	0.3	4.8	1.0	0.7	0.3	0.3	0.0	10.2	2.1
<i>Active Patients</i>										
Less than 300	0.8	0.3	1.2	1.0	0.2	0.1	0.1	0.1	2.8	1.9
300-425	1.0	0.3	2.2	0.5	0.1	0.1	0.1	0.0	4.1	1.1
426-550	1.3	0.3	3.1	0.7	0.4	0.1	0.2	0.1	6.3	1.3
551-750	1.5	0.3	3.2	0.9	0.2	0.2	0.2	0.0	6.3	2.0
More than 750	1.9	0.3	4.7	0.7	0.6	0.3	0.4	0.0	9.9	1.6
<i>Net Income Level</i>										
Low	1.0	0.3	1.9	0.7	0.2	0.1	0.2	0.1	3.8	1.3
Moderate	1.3	0.4	2.8	0.7	0.2	0.1	0.3	0.1	5.9	1.5
High	1.7	0.3	4.1	0.9	0.4	0.2	0.2	0.0	8.0	1.8
<i>Number of Chairs</i>										
3-5	1.0	0.3	2.0	0.7	0.2	0.1	0.1	0.1	4.0	1.4
6-10	1.5	0.3	3.3	0.9	0.3	0.2	0.3	0.1	6.8	1.9
COMPOSITE	1.3	0.3	2.7	0.8	0.3	0.1	0.2	0.0	5.6	1.6

**TABLE 6-3
PERCENTAGES OF PRACTICES EMPLOYING SELECTED STAFF**

	Receptionist/ Secretary		Chairside Assistant		Lab Technician		Office Manager	
	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Part- Time	Full- Time	Part- Time
<i>Case Starts</i>								
Less than 150	79%	23%	71%	39%	13%	9%	9%	6%
150-200	83	26	83	34	17	7	16	7
201-250	84	25	98	36	27	16	23	5
251-350	88	25	94	38	31	19	31	6
More than 350	93	21	93	43	50	19	31	5
<i>Active Patients</i>								
Less than 300	74	24	61	50	19	9	11	7
301-450	81	25	88	27	12	6	13	4
451-550	92	31	100	44	44	13	23	10
550-750	91	22	89	33	20	20	24	4
More than 750	88	18	98	38	43	18	35	3
<i>Net Income Level</i>								
Low	79	21	79	39	18	6	16	6
Moderate	90	30	88	40	23	12	23	5
High	89	20	93	39	36	13	25	5
<i>Number of Chairs</i>								
3-5	80	26	87	37	18	7	14	5
6-10	89	21	92	41	30	16	26	7
COMPOSITE	85	23	87	39	25	12	21	6

TABLE 6-4
MEAN MONTHLY SALARIES FOR
FULL-TIME STAFF BY SELECTED VARIABLES

	Receptionist/ Secretary	Chairside Assistant
<i>Years in Orthodontic Practice</i>		
2-5 years	\$ 2,687	\$ 2,624
6-10 years	3,078	2,972
11-15 years	2,539	2,533
16-20 years	2,782	2,689
21-25 years	2,785	2,930
26 or more years	2,743	2,653
<i>Legal Status</i>		
Sole proprietorship	2,904	2,871
Professional corporation	2,644	2,614
<i>Child Fee (permanent dentition)</i>		
Low (less than \$4,800)	2,552	2,519
High (over \$5,500)	2,821	2,838
<i>Net Income</i>		
Low	2,644	2,499
Moderate	2,837	2,893
High	2,983	2,970
<i>Community Size</i>		
Rural (less than 20,000)	2,670	2,552
Small city (20,000-50,000)	2,743	2,651
Large city (50,000-500,000)	2,680	2,768
Metropolitan (more than 500,000)	2,902	2,840
<i>Geographic Region</i>		
New England	2,832	2,890*
Middle Atlantic	3,137	2,952
South Atlantic	2,844	2,869
East South Central	2,262	2,190
East North Central	2,403	2,278
West North Central	2,847	2,667
Mountain	2,605	2,407
West South Central	2,722	2,896
Pacific	2,963	3,081
COMPOSITE	2,747	2,722

*Differences between these groups are statistically significant at or below the .01 probability level.

**TABLE 6-5
MEAN MONTHLY SALARIES FOR
FULL-TIME STAFF BY GEOGRAPHIC REGION**

	Receptionist/ Secretary	Chairside Assistant
New England		
(CT,ME,MA,NH,RI,VT)	\$ 2,832	\$ 2,890
Less than 20,000	2,724	2,872
20,000-50,000	2,861	NA
50,000-500,000	NA	NA
More than 500,000	NA	NA
Middle Atlantic		
(NJ,NY,PA)	3,137	2,952
Less than 20,000	NA	NA
20,000-50,000	3,256	2,991
50,000-500,000	NA	NA
More than 500,000	2,603	NA
South Atlantic		
(DE,DC,FL,GA,MD,NC,SC,VA,WV)	2,830	2,855
Less than 20,000	NA	NA
20,000-50,000	2,384	2,559
50,000-500,000	2,677	2,854
More than 500,000	3,276	3,113
East South Central		
(AL,KY,MS,TN)	2,262	2,190
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	NA	NA
More than 500,000	NA	NA
East North Central		
(IL,IN,MI,OH,WI)	2,403	2,278
Less than 20,000	2,396	2,091
20,000-50,000	2,522	2,345
50,000-500,000	2,216	2,266
More than 500,000	NA	NA
West North Central		
(IA,KS,MN,MO,NE,ND,SD)	2,847	2,667
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	NA	2,347
More than 500,000	NA	NA
Mountain		
(AZ,CO,ID,MT,NV,NM,UT,WY)	2,605	2,407
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	NA	NA
More than 500,000	2,693	2,638
West South Central		
(AR,LA,OK,TX)	2,722	2,896
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	2,747	3,166
More than 500,000	2,992	2,948
Pacific		
(AK,CA,HI,OR,WA)	2,963	3,081
Less than 20,000	NA	NA
20,000-50,000	NA	NA
50,000-500,000	2,797	2,998
More than 500,000	3,388	3,462

**TABLE 6-6
BENEFITS PROVIDED FOR EMPLOYEES BY SELECTED VARIABLES**

	Paid Vacation	Paid Sick Leave	Maternity Leave	Paid Holidays	Health Insurance	Retirement Plan	Uniform Allowance	Continuing Education	Dental Benefits	Orthodontic Benefits	Cafeteria Plan	Direct Reim- bursement
<i>Years in Orthodontic Practice</i>												
2-5 years	100.0%	63.6%	4.6%	77.3%	40.9%	54.6%	68.2%	50.0%	13.6%	95.5%	9.1%	27.3%
6-10 years	100.0	69.2	15.4	96.2	65.4	80.8	88.5	80.8	26.9	92.3	7.7	3.9
11-15 years	100.0	55.9	20.6	91.2	52.9	76.5	91.2	76.5	11.8	97.1	14.7	26.5
16-20 years	97.3	76.9	18.0	92.3	74.4	89.7	89.7	74.4	25.6	97.4	10.5	12.8
21-25 years	100.0	75.0	15.0	91.7	60.0	88.3	80.0	75.0	28.3	91.7	13.3	13.3
Over 25 years	98.2	71.2	16.2	92.8	55.9	58.6	73.9	56.8	24.3	95.6	5.5	8.1
<i>Legal Status</i>												
Sole proprietorship	97.6	74.8	16.3	90.2	55.3	72.4	75.6	58.5	21.1	92.7	8.3	9.8
Professional corporation	98.8	66.5	15.2	92.7	60.4	73.2	84.2	72.6	24.4	96.3	9.1	14.6
<i>Turnover Rate</i>												
1-24 months	100.0	68.8	6.3	100.0	43.8	56.3	75.0	56.3	25.0	93.8	12.5	0.0
25-36 months	100.0	62.5	6.3	87.5	50.0	53.1	75.0	68.8	12.5	90.6	3.1	6.3
37 or more months	98.3	70.8	17.0	91.3	61.0	76.7	80.9	67.0	25.0	95.3	10.3	14.4
<i>Net Income</i>												
Low	98.3	67.8	15.3	89.8	47.5	59.3	79.7	55.9	25.4	93.2	10.3	10.2
Moderate	98.4	72.1	11.5	88.5	67.2	83.6	82.0	62.3	11.5	95.1	9.8	9.8
High	100.0	68.9	16.4	93.4	63.9	88.5	78.7	73.8	24.6	98.4	3.3	16.4
<i>Community Size</i>												
Rural (less than 20,000)	97.7	74.4	16.3	90.7	53.5	81.4	79.1	65.1	20.9	88.4	18.6	18.6
Small city (20,000-50,000)	100.0	77.4	19.1	95.2	60.7	79.8	83.3	73.8	26.2	98.8	6.0	10.7
Large city (50,000-500,000)	99.0	66.3	14.7	90.5	56.8	73.7	77.9	64.2	22.1	96.8	8.4	15.8
Metropolitan (more than 500,000)	95.6	66.2	13.2	88.2	61.8	75.4	79.4	63.2	22.1	91.2	9.0	8.8
COMPOSITE	98.3	70.2	15.8	91.4	58.6	72.6	80.1	66.8	23.3	94.9	9.3	13.0

**TABLE 6-7
BENEFITS PROVIDED FOR EMPLOYEES BY GEOGRAPHIC REGION**

	Paid Vacation	Paid Sick Leave	Maternity Leave	Paid Holidays	Health Insurance	Retirement Plan	Uniform Allowance	Continuing Education	Dental Benefits	Orthodontic Benefits	Cafeteria Plan	Direct Reim- bursement
New England (CT,ME,MA,NH,RI,VT)	100.0%	95.0%	15.0%	90.0%	70.0%	75.0%	65.0%	65.0%	25.0%	85.0%	0.0%	5.0%
Less than 20,000	100.0	100.0	12.5	87.5	87.5	75.0	75.0	75.0	12.5	75.0	0.0	0.0
20,000-50,000	100.0	100.0	12.5	100.0	75.0	100.0	75.0	87.5	37.5	100.0	0.0	12.5
50,000-500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Middle Atlantic (NJ,NY,PA)	97.4	79.0	15.8	86.8	71.1	79.0	81.6	65.8	23.7	92.1	5.4	5.3
Less than 20,000	100.0	71.4	28.6	100.0	71.4	100.0	71.4	71.4	28.6	100.0	14.3	14.3
20,000-50,000	100.0	85.0	20.0	90.0	80.0	80.0	90.0	75.0	30.0	95.0	0.0	5.0
50,000-500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
More than 500,000	100.0	71.4	0.0	85.7	57.1	71.4	71.4	57.1	14.3	85.7	16.7	0.0
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	97.9	70.8	16.7	85.4	54.2	70.8	87.5	68.8	18.8	97.9	16.7	20.8
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	100.0	70.0	0.0	90.0	50.0	90.0	90.0	80.0	10.0	100.0	10.0	10.0
50,000-500,000	100.0	61.1	22.2	83.3	55.6	77.8	83.3	61.1	27.8	100.0	5.6	27.8
More than 500,000	100.0	86.7	26.7	86.7	66.7	40.0	86.7	66.7	20.0	93.3	13.3	6.7
East South Central (AL,KY,MS,TN)	100.0	91.7	16.7	100.0	66.7	91.7	83.3	66.7	33.3	91.7	0.0	8.3
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50,000-500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
East North Central (IL,IN,MI,OH,WI)	100.0	66.7	16.7	95.2	50.0	83.3	88.1	76.2	21.4	100.0	9.8	28.6
Less than 20,000	100.0	50.0	0.0	100.0	83.3	83.3	83.3	66.7	16.7	100.0	3.3	5.0
20,000-50,000	100.0	66.7	28.6	100.0	47.6	81.0	81.0	66.7	23.8	100.0	5.0	19.1
50,000-500,000	100.0	70.0	0.0	90.0	50.0	90.0	100.0	100.0	20.0	100.0	10.0	50.0
More than 500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
West North Central (IA,KS,MN,MO,NE,ND,SD)	100.0	75.0	18.8	93.7	62.5	75.0	81.3	62.5	25.0	100.0	31.3	25.0
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50,000-500,000	100.0	83.3	33.3	100.0	66.7	83.3	100.0	66.7	16.7	100.0	16.7	0.0
More than 500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	96.4	53.6	10.7	91.1	50.0	57.1	60.7	53.6	28.6	89.3	3.6	0.0
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50,000-500,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
More than 500,000	92.3	38.5	7.7	92.3	61.5	46.2	53.9	53.9	38.5	84.6	0.0	0.0
West South Central (AR,LA,OK,TX)	94.1	73.5	14.7	96.2	47.1	61.8	82.4	73.5	23.5	92.9	0.0	2.9
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
50,000-500,000	100.0	85.7	14.3	100.0	57.1	85.7	92.9	78.6	35.7	100.0	0.0	0.0
More than 500,000	85.7	57.1	7.1	100.0	42.9	42.9	78.6	71.4	7.1	96.2	0.0	7.1
Pacific (AK,CA,HI,OR,WA)	100.0	59.5	14.3	98.5	66.7	42.9	76.2	66.7	21.4	92.9	11.9	11.9
Less than 20,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20,000-50,000	100.0	57.1	28.6	100.0	14.3	57.1	85.7	85.7	14.3	100.0	14.3	14.3
50,000-500,000	100.0	57.7	11.5	100.0	69.2	69.2	65.4	57.7	23.1	96.2	11.5	11.5
More than 500,000	100.0	62.5	12.5	100.0	100.0	87.5	100.0	75.0	25.0	87.5	12.5	12.5

TABLE 6-8
STAFF TURNOVER RATE BY SELECTED VARIABLES

	1-24 months	25-36 months	37 or more months
<i>Years in Orthodontic Practice</i>			
2-5 years	18.2%	27.3%	54.5%
6-10 years	11.5	30.8	57.7
11-15 years	2.9	23.5	73.5
16-20 years	0.0	7.9	92.1
21-25 years	6.6	4.9	88.5
26 or more years	6.4	4.5	89.1
<i>Legal Status</i>			
Sole proprietorship	7.3	10.5	82.0
Professional corporation	5.9	10.6	83.5
<i>Child Fee (permanent dentition)</i>			
Low (less than \$4,800)	8.0	10.0	82.0
High (over \$ 5,500)	5.9	10.6	83.5
<i>Net Income</i>			
Low	1.6	25.8	72.6
Moderate	10.2	10.2	79.7
High	5.0	3.3	91.7
<i>Community Size</i>			
Rural (less than 20,000)	4.5	4.5	90.1
Small city (20,000-50,000)	7.2	8.4	84.3
Large city (50,000-500,000)	6.2	11.3	82.5
Metropolitan (more than 500,000)	7.1	18.6	74.3
<i>Geographic Region</i>			
New England	5.0	15.0	80.0
Middle Atlantic	10.3	10.3	79.5
South Atlantic	6.1	14.3	79.6
East South Central	8.3	0.0	91.7
East North Central	4.9	4.9	90.2
West North Central	18.8	6.3	75.0
Mountain	3.2	19.4	77.4
West South Central	6.3	18.8	75.0
Pacific	0.0	9.3	90.7
<i>Practice Busyness</i>			
Too busy to treat all persons requesting appointments	0.0	0.0	0.0
Provided care to all who requested appointments but felt overworked	16.0	4.0	80.0
Provided care to all who requested appointments—did not feel overworked	4.3	8.7	87.0
Not busy enough	6.1	14.3	79.6
COMPOSITE	6.4	11.1	82.4

TABLE 6-9
SELECTED VARIABLES (MEANS) BY STAFF TURNOVER RATE

	1-24 months	25-36 months	37 or more months
Receptionist/Secretary Monthly Salary	\$2,458	\$2,494	\$2,800
Chairside Assistant Monthly Salary	2,480	2,579	2,768
Total Full-Time Employees	5.4	4.4	6.0
Total Part-Time Employees	1.1	0.8	1.7

TABLE 7-1
PRACTICE GROWTH BY SELECTED VARIABLES

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
<i>Years in Orthodontic Practice</i>						
2-5 years	68.2%	13.6%	18.2%	72.7%	9.1%	18.2%
6-10 years	72.0	16.0	12.0	68.0	20.0	12.0
11-15 years	50.0	26.5	23.5	58.8	29.4	11.8
16-20 years	21.6	43.2	35.1	36.1	41.7	22.2
21-25 years	28.3	45.0	26.7	25.8	43.5	30.6
26 or more years	17.9	58.9	23.2	22.5	52.3	25.2
<i>Legal Status</i>						
Sole proprietorship	26.2	50.8	23.0	32.2	46.3	21.5
Professional corporation	37.9	36.7	25.4	41.2	35.3	23.5
<i>Child Fee (permanent dentition)</i>						
Low (less than \$4,800)	20.8	52.8	26.4	24.5	43.4	32.1
High (over \$5,500)	39.5	40.7	19.8	44.8	40.2	14.9
<i>Net Income</i>						
Low (\$50,000-250,000)	28.1	56.3	15.6	24.6	55.4	20.0
Moderate (\$325,000-525,000)	39.0	33.9	27.1	44.1	30.5	25.4
High (\$600,000 and more)	42.6	29.5	27.9	45.2	30.6	24.2
<i>Community Size</i>						
Rural (less than 20,000)	37.0	43.5	19.6	34.1	38.6	27.3
Small city (20,000-50,000)	26.8	43.9	29.3	38.6	36.1	25.3
Large city (50,000-500,000)	33.7	41.8	24.5	39.8	41.8	18.4
Metropolitan (more than 500,000)	36.4	43.9	19.7	32.8	46.3	20.9
<i>Geographic Region</i>						
New England	30.0	50.0	20.0	40.0	35.0	25.0
Middle Atlantic	20.5	46.2	33.3	27.5	42.5	30.0
South Atlantic	40.4	42.6	17.0	30.6	51.0	18.4
East South Central	41.7	41.7	16.7	45.5	27.3	27.3
East North Central	28.6	40.5	31.0	40.5	35.7	23.8
West North Central	26.7	53.3	20.0	40.0	40.0	20.0
Mountain	43.3	33.3	23.3	40.0	36.7	23.3
West South Central	45.5	30.3	24.2	53.1	21.9	25.0
Pacific	28.3	45.7	26.1	37.8	44.4	17.8
COMPOSITE	32.9	42.7	24.4	36.9	40.3	22.7

**TABLE 7-2
PRACTICE GROWTH BY GEOGRAPHIC REGION**

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
New England (CT,ME,MA,NH,RI,VT)	30.0%	50.0%	20.0%	40.0%	35.0%	25.0%
Less than 20,000	37.5	50.0	12.5	37.5	37.5	25.0
20,000-50,000	37.5	37.5	25.0	62.5	12.5	25.0
50,000-500,000	NA	NA	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA	NA	NA
Middle Atlantic (NJ,NY,PA)	21.1	47.4	31.6	28.2	43.6	28.2
Less than 20,000	22.2	44.4	33.3	22.2	33.3	44.4
20,000-50,000	21.1	47.4	31.6	45.0	40.0	15.0
50,000-500,000	NA	NA	NA	NA	NA	NA
More than 500,000	33.3	16.7	50.0	0.0	33.3	66.7
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	40.0	44.4	15.6	29.8	53.2	17.0
Less than 20,000	NA	NA	NA	NA	NA	NA
20,000-50,000	40.0	40.0	20.0	40.0	40.0	20.0
50,000-500,000	35.3	47.1	17.6	22.2	61.1	16.7
More than 500,000	35.7	50.0	14.3	33.3	46.7	20.0
East South Central (AL,KY,MS,TN)	41.7	41.7	16.7	45.5	27.3	27.3
Less than 20,000	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA
50,000-500,000	NA	NA	NA	NA	NA	NA
More than 500,000	NA	NA	NA	NA	NA	NA
East North Central (IL,IN,MI,OH,WI)	28.6	40.5	31.0	40.5	35.7	23.8
Less than 20,000	33.3	50.0	16.7	33.3	50.0	16.7
20,000-50,000	20.0	55.0	25.0	35.0	45.0	20.0
50,000-500,000	50.0	20.0	30.0	60.0	10.0	30.0
More than 500,000	16.7	16.7	66.7	33.3	33.3	33.3
West North Central (IA,KS,MN,MO,NE,ND,SD)	26.7	53.3	20.0	40.0	40.0	20.0
Less than 20,000	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA
50,000-500,000	42.9	14.3	42.9	57.1	14.3	28.6
More than 500,000	NA	NA	NA	NA	NA	NA
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	43.3	33.3	23.3	40.0	36.7	23.3
Less than 20,000	33.3	16.7	50.0	16.7	16.7	66.7
20,000-50,000	NA	NA	NA	NA	NA	NA
50,000-500,000	33.3	50.0	16.7	33.3	66.7	0.0
More than 500,000	53.8	46.2	0.0	46.2	46.2	7.7
West South Central (AR,LA,OK,TX)	45.5	30.3	24.2	53.1	21.9	21.4
Less than 20,000	NA	NA	NA	NA	NA	NA
20,000-50,000	NA	NA	NA	NA	NA	NA
50,000-500,000	46.2	15.4	38.5	61.5	7.7	30.8
More than 500,000	50.0	35.7	14.3	50.0	28.6	21.4
Pacific (AK,CA,HI,OR,WA)	28.3	45.7	26.1	37.8	44.4	17.8
Less than 20,000	NA	NA	NA	NA	NA	NA
20,000-50,000	14.3	28.6	57.1	14.3	28.6	57.1
50,000-500,000	28.6	50.0	21.4	44.4	44.4	11.1
More than 500,000	25.0	50.0	25.0	25.0	62.5	12.5

**TABLE 7-3
SELECTED VARIABLES (MEANS) BY PRACTICE GROWTH**

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
Satellite Offices	0.6	0.5	0.6	0.5	0.5	0.7
Child Fee	\$5,318	\$5,201	\$5,135	\$5,392	\$5,187	\$5,042
Adult Fee	\$5,775	\$5,544	\$5,514	\$5,815	\$5,568	\$5,383
Case Starts	260	197	264	261	197	247
Adult Case Starts	23.1%	26.4%	24.8%	21.5%	27.1%	25.5%
Active Cases	570	453	629	523	482	584
Adult Active Cases	21.4%	23.1%	25.2%	19.4%	23.1%	25.3%
Patients Covered by Third Party	50.1%	43.7%	39.3%	48.8%	41.0%	45.1%
Patients Covered by Managed Care	5.3%	7.1%	10.4%	4.3%	7.7%	11.1%
Accept Assignment of Benefits	84.4%	80.8%	73.6%	83.5%	81.4%	71.2%

**TABLE 7-4
SOURCES OF REFERRALS (MEANS) BY PRACTICE GROWTH**

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
Other Dentists (GPs)	44.1%	37.8%	39.2%	42.8%	37.6%	40.5%
Other Dentists (Specialists)	3.9	3.7	5.6	3.9	3.4	6.3
Patients and Parents	31.6	37.8	37.8	33.8	37.9	35.8
Personal Contacts	3.3	4.7	3.8	3.8	4.7	3.6
Transfers	1.7	1.6	1.4	1.6	1.6	1.6
Staff	1.0	1.7	1.6	1.1	1.8	1.4
Other Professionals	0.4	1.1	0.6	0.4	1.2	0.6
Dental Franchises	0.0	0.1	0.0	0.0	0.1	0.0
Dental Referral Service	0.2	0.5	0.4	0.2	0.5	0.4
Direct Mail Advertising	0.6	0.1	0.5	0.6	0.2	0.4
Yellow Pages	0.9	1.1	0.9	0.9	1.0	0.9
Internet	5.0	3.9	2.6	5.6	3.5	2.1
Commercial Advertising	1.4	0.4	0.7	1.3	0.3	0.7
Drive-By Signage	1.5	0.7	0.6	1.4	0.7	0.5
Managed Care/Capitation	1.6	2.2	2.5	0.9	2.4	3.0

**TABLE 7-5
PRACTICE GROWTH BY MANAGEMENT METHODS USED**

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
<i>All Practices</i>	32.9%	42.7%	24.4%	36.9%	40.3%	22.7%
<i>Practices Using Method</i>						
Written philosophy of practice	35.1	40.9	24.0	38.8	38.2	23.0
Written practice objectives	39.1	44.8	16.1	43.5	38.8	17.6
Written practice plan	36.4	41.8	21.8	35.8	41.5	22.6
Written practice budget	42.2	44.4	13.3	38.6	38.6	22.7
Office policy manual	33.9	40.5	25.6	39.0	37.7	23.2
Office procedure manual	33.1	44.4	22.5	35.8	42.4	21.9
Written job descriptions	34.6	38.4	27.0	39.0	38.4	22.6
Written staff training program	28.7	48.3	23.0	29.9	51.7	18.4
Staff meetings	35.6	40.3	24.2	39.8	37.7	22.5
Individual performance appraisals	37.8	39.6	22.6	38.2	39.4	22.4
Measurement of staff productivity	36.6	51.2	12.2	42.5	52.5	5.0
In-depth analysis of practice activity	39.5	34.9	25.6	41.9	37.2	20.9
Practice promotion plan	34.5	44.8	20.7	42.5	41.4	16.1
Dental management consultant	45.1	35.3	19.6	46.0	34.0	20.0
Patient satisfaction surveys	36.8	40.6	22.6	39.4	42.3	18.3
Employee with primary responsibility as communications supervisor	35.6	41.1	23.3	38.9	38.9	22.2
Progress reports	31.6	46.9	21.4	34.7	43.9	21.4
Post-treatment consultations	26.1	54.3	19.6	28.3	52.2	19.6
Pretreatment flow control system	35.8	40.3	23.9	37.6	41.4	21.1
Treatment flow control system	32.9	42.7	24.4	39.0	42.7	18.3
Cases beyond estimate report	32.7	49.0	18.4	36.1	46.4	17.5
Profit and loss statements	35.6	40.7	23.6	38.0	38.4	23.6
Delinquent account register	32.8	43.2	24.0	36.2	41.0	22.7
Accounts-receivable reports	32.6	42.9	24.5	35.9	40.2	23.9
Contracts-written reports	33.1	44.4	22.5	36.4	43.7	19.9
Measurement of case acceptance	38.7	38.0	23.3	44.6	35.1	20.3

**TABLE 7-6
PRACTICE GROWTH BY ROUTINE DELEGATION**

	Case Starts			Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
<i>All Practices</i>	32.9%	42.7%	24.4%	36.9%	40.3%	22.7%
<i>Practices Routinely Delegating</i>						
<i>Record-Taking</i>						
Impressions for study models	33.5	43.1	23.4	37.0	40.7	22.2
X-rays	33.0	43.2	23.8	36.6	41.0	22.3
Cephalometric tracings	30.5	40.0	29.3	36.8	35.8	27.4
<i>Clinical</i>						
Impressions for appliances	34.8	41.7	23.5	37.9	39.9	22.2
Removal of residual adhesive	36.1	39.8	24.1	39.8	38.0	22.2
Fabrication of:						
Bands	33.8	42.6	23.6	41.2	39.2	19.6
Archwires	32.9	37.8	29.3	43.9	32.9	23.2
Removable appliances	33.3	43.9	22.8	39.3	43.4	17.2
Insertion of:						
Bands	37.6	39.6	22.8	41.0	39.0	20.0
Bonds	30.2	44.2	25.6	39.0	41.5	19.5
Archwires	39.4	36.4	24.2	42.9	35.6	21.5
Removable appliances	30.0	45.7	24.3	30.9	48.5	20.6
Adjustment of:						
Archwires	34.3	45.7	20.0	36.1	44.4	19.4
Removable appliances	22.2	48.1	29.6	22.2	55.6	22.2
Removal of:						
Bands	40.4	38.6	21.1	38.8	38.2	23.0
Bonds	40.6	38.2	21.2	39.6	38.5	21.9
Archwires	36.8	42.3	20.9	38.0	40.2	21.8
<i>Administrative</i>						
Case presentation	25.7	47.1	27.1	34.8	39.1	26.1
Fee presentation	36.1	42.5	21.5	38.2	40.5	21.4
Financial arrangements	33.1	42.9	24.0	37.4	40.2	22.4
Progress reports	30.7	42.7	26.7	36.5	37.8	25.7
Post-treatment conferences	17.9	51.3	30.8	18.4	47.4	34.2
Patient instruction and education	32.0	44.5	23.4	35.2	42.2	22.7

**TABLE 7-7
USE OF PRACTICE-BUILDING METHODS BY PRACTICE GROWTH**

	Case Starts				Gross Income			
	Increase		Decrease		Increase		Decrease	
	Used	Rating†	Used	Rating	Used	Rating	Used	Rating
Change practice location	23.7%	3.6	23.8%	3.1	25.0%	3.7	25.8%	3.1*
Expand practice hours:								
Open one or more evenings/week	17.5	3.0	17.1	2.5	20.7	3.1	16.5	2.3
Open one or more Saturdays/month	8.8	2.7	13.3	2.4	13.0	2.7	13.4	2.3
Open a satellite office	30.0	3.5	22.9	2.9	25.0	3.3	22.7	3.1
Participate in community activities	72.5	2.6	57.1	2.4	70.7	2.6	54.6	2.3
Participate in dental society activities	66.3	2.3	54.3	2.1	66.3	2.3	49.5	1.9
Seek referrals from general dentists:								
Letters of appreciation	71.3	2.5	72.4	2.4	72.8	2.5	71.1	2.3
Entertainment	65.0	2.6	53.3	2.1*	66.3	2.5	52.6	2.1*
Gifts	82.5	2.4	74.3	2.2	81.5	2.4	73.2	2.1
Education of GPs	50.0	2.9	36.2	2.5	52.2	2.8	34.0	2.3
Reports to GPs	71.3	2.5	67.6	2.5	75.0	2.6	67.0	2.4
Seek referrals from patients and parents:								
Letters of appreciation	60.0	3.0	63.8	2.6*	60.9	3.0	58.8	2.6*
Follow-up calls after difficult appts.	68.8	3.2	67.6	2.9	71.7	3.2	62.9	2.8
Entertainment	31.3	2.8	21.0	2.3	31.5	2.8	20.6	2.2*
Gifts	52.5	2.7	49.5	2.4	57.6	2.7	47.4	2.3*
Seek referrals from staff members	56.2	2.3	57.1	2.2	59.8	2.3	55.7	2.0
Seek referrals from other professionals (non-dentists)	25.0	2.3	31.4	1.9	25.0	2.4	33.0	1.8
Treat adult patients	85.0	2.9	85.7	2.7	84.8	2.9	85.6	2.7
Improve scheduling:								
On time for appointments	76.1	3.2	75.3	2.9	76.1	3.2	75.3	2.9
On-time case finishing	65.0	3.1	67.6	2.8	66.3	3.2	68.0	2.8*
Improve case presentation	53.8	3.2	46.7	2.9	48.9	3.2	48.5	3.0
Improve staff management	42.5	3.3	39.1	2.8*	42.4	3.2	45.4	2.9
Improve patient education (communication, audiovisuals, etc.)	50.0	3.2	48.6	2.6*	48.9	3.1	48.5	2.6*
Expand services:								
TMD	18.8	2.0	23.8	2.0	18.5	2.4	25.8	2.0
Functional appliances	16.3	2.8	26.7	2.0*	17.4	2.6	25.8	2.1
Lingual orthodontics	15.0	2.2	12.4	1.8	15.2	2.2	13.4	1.8
Surgical orthodontics	38.8	2.4	36.2	2.0	38.0	2.5	39.2	2.1
Temporary anchorage	50.0	2.4	34.3	2.1	47.8	2.4	33.0	2.1
Invisalign treatment	70.0	2.9	61.0	2.6	69.6	2.8	59.8	2.7
Cosmetic/laser treatment	27.5	2.1	15.2	2.6	26.1	2.1	17.5	2.6
Patient motivation techniques	52.5	2.7	45.7	2.4	56.5	2.7	47.4	2.5
No-charge initial visit	86.3	3.2	82.9	2.7*	83.7	3.1	80.4	2.7*
No-charge diagnostic records	36.3	2.8	26.7	2.8	34.8	2.8	27.8	2.8
No initial payment	20.0	2.7	26.7	2.6	17.4	2.6	27.8	2.6
Discount for up-front payment	82.5	2.5	79.1	2.5	85.9	2.6	79.4	2.4
Extended payment period	58.8	2.9	56.2	2.7	62.0	2.9	50.5	2.6
Practice newsletter	26.3	2.2	28.6	2.0	29.4	2.3	29.9	1.9
Practice website	85.0	2.7	68.6	2.6	83.7	2.8	68.0	2.7
Personal publicity in local media	23.8	2.2	22.9	2.3	25.0	2.3	22.7	2.2
Advertising:								
Yellow pages boldface listing	52.5	1.7	63.8	1.4	57.6	1.7	58.8	1.4
Yellow pages display advertising	27.5	1.6	34.3	1.6	32.6	1.8	33.0	1.5
Local newspapers	27.5	2.1	21.9	1.6	23.9	2.2	21.7	1.5
Local TV	11.3	2.7	8.6	1.5	10.9	2.4	8.3	1.4
Local radio	12.5	2.5	9.5	2.3	8.7	2.6	11.3	2.1
Online advertising	26.3	2.9	19.1	2.7	27.2	3.0	16.5	2.5
Direct-mail promotion	25.0	2.3	20.0	2.2	25.0	2.3	19.6	2.3
Managed care	23.8	2.7	21.0	2.5	17.4	2.6	21.7	2.5
Management service affiliation	2.5	NA	3.8	NA	2.2	NA	4.1	NA

*Differences between these groups are statistically significant at or below the .01 probability level.

†4 = excellent; 3 = good; 2 = fair; 1 = poor.

TABLE 7-8
DEGREE OF INFLUENCE OF FACTORS CITED FOR LACK OF GROWTH

	None (1)	Some (2)	High (3)	Mean Rating
Local economic conditions	2.8	29.9	67.3	2.6
Increased number of orthodontists in your area	17.4%	43.7%	39.0%	2.2
Increased number of dentists doing Invisalign in your area	13.9	56.5	29.6	2.2
Increased number of dentists doing orthodontics in your area	17.2	58.1	24.7	2.1
Low-fee competition	29.0	49.8	21.3	1.9
Loss of contact with younger dentists	37.7	47.8	14.5	1.8
Advertising dentists in your area	40.5	50.6	8.9	1.7
Ineffective practice-building methods	38.8	52.2	9.0	1.7
Declining number of children in the local population	52.5	36.9	10.6	1.6
Managed care (closed-panel) dental programs	53.0	40.9	6.1	1.5
Ineffective practice management	54.5	38.5	7.0	1.5
Management service organizations	57.9	36.4	5.6	1.5
Personal decision not to increase size of practice	80.6	10.7	8.7	1.3
Quality of staff	74.6	18.9	6.5	1.3
Retail store clinics	78.7	18.8	2.5	1.2

**TABLE 7-9
EXPECTATIONS FOR PRACTICE GROWTH IN 2011 BY SELECTED VARIABLES**

	Expected Case Starts			Expected Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
<i>Years in Orthodontic Practice</i>						
2-5 years	59.1	13.6%	27.3%	59.1%	13.6%	27.3%
6-10 years	77.8	14.8	7.4	77.8	14.8	7.4
11-15 years	76.5	8.8	14.7	76.5	8.8	14.7
16-20 years	36.6	26.3	36.8	39.5	31.6	28.9
21-25 years	37.1	22.6	40.3	38.7	27.4	33.9
26 or more years	32.1	33.0	34.8	36.3	32.7	31.0
<i>Legal Status</i>						
Sole proprietorship	34.7	32.3	33.1	35.5	34.7	29.8
Professional corporation	52.3	17.4	30.2	55.5	19.1	25.4
<i>Child Fee (permanent dentition)</i>						
Low (less than \$4,800)	40.4	26.9	32.7	40.4	26.9	32.7
High (over \$5,500)	46.0	25.3	28.7	46.0	27.6	26.4
<i>Net Income</i>						
Low (\$50,000-250,000)	47.1	25.0	27.9	48.5	25.0	26.5
Moderate (\$325,000-525,000)	44.1	20.3	35.6	47.5	20.3	32.2
High (\$600,000 and more)	50.0	21.0	29.0	53.2	22.6	24.2
<i>Community Size</i>						
Rural (less than 20,000)	37.0	30.4	32.6	39.1	32.6	28.3
Small city (20,000-50,000)	41.2	25.9	32.9	45.9	28.2	25.9
Large city (50,000-500,000)	46.5	23.2	30.3	48.5	24.2	27.3
Metropolitan (over 500,000)	55.2	17.9	26.9	54.4	20.6	25.0
<i>Geographic Region</i>						
New England	25.0	15.0	60.0	35.0	20.0	45.0
Middle Atlantic	34.1	36.6	29.3	36.6	41.5	22.0
South Atlantic	59.6	17.0	23.4	60.4	16.7	22.9
East South Central	66.7	0.0	33.3	58.3	0.0	41.7
East North Central	37.2	30.2	32.6	39.5	32.6	27.9
West North Central	43.8	18.8	37.5	43.8	18.8	37.5
Mountain	53.3	20.0	26.7	56.7	20.0	23.3
West South Central	52.9	17.6	29.4	52.9	17.6	29.4
Pacific	47.8	23.9	28.3	50.0	26.1	23.9
COMPOSITE	45.3	23.7	31.0	47.5	25.6	26.9

**TABLE 7-10
EXPECTATIONS FOR 2011 BY 2010 PRACTICE GROWTH**

	Expected Case Starts			Expected Gross Income		
	Increase	Decrease	Same	Increase	Decrease	Same
<i>2010</i>						
Increased	74.2%	8.2%	17.5%	69.7%	9.2%	21.1%
Decreased	28.0	43.2	28.8	33.1	47.5	19.5
Stayed the same	35.2	12.7	52.1	35.8	14.9	49.3

**TABLE A-1
SELECTED VARIABLES BY ACTUAL
OR ESTIMATED INCOME FIGURES**

	Number	Median
Gross Income		
Actual	80	\$1,077,369
Estimated	167	900,000
Total Expenses		
Actual	74	614,467
Estimated	153	500,000
Net Income		
Actual	74	426,450
Estimated	152	350,000
Overhead Rate		
Actual	53	.60
Estimated	152	.58

**TABLE A-2
PRACTICE ACTIVITY (MEDIAN) BY NUMBER OF ORTHODONTIST-OWNERS**

	Number of Owners		
	1	2	3
Number of Satellite Offices*	0.6	0.9	1.7
Full-Time Employees*	5.6	9.6	14.6
Part-Time Employees*	1.6	1.8	1.3
Child Case Fee*	\$5,228	\$5,350	\$5,213
Adult Case Fee*	\$5,626	\$5,715	\$5,530
Case Starts	200.0	450.0	527.0
Adult Case Starts	20.0%	20.8%	21.4%
Active Cases	450.0	763.0	1202.0
Adult Active Cases	17.8%	18.8%	22.0%
Patients Covered by Third Party	40.0%	42.0%	50.0%
Offer Third-Party Financing Plan	66.2%	73.0%	100.0%
Patients per Day	45.0	60.0	70.0
Emergencies per Day	2.0	4.0	5.0
Broken Appointments per Day	3.0	4.0	5.0
Cancelled Appointments per Day	2.0	4.0	5.0
Gross Income	\$950,000	\$1,795,362	\$2,931,212
Operating Expense	\$550,000	\$800,000	\$1,550,000
Net Income	\$374,000	\$785,000	\$960,954
Net Income per Case	\$792	\$1,171	\$1,050

* Means.

**TABLE A-3
PEARSON'S CORRELATION COEFFICIENTS FOR SELECTED VARIABLES**

	Child Case Fee	Case Starts	Gross Income	Total Expenses	Net Income
Child Case Fee		.08	.21	.18	.13
Case Starts	.08		.84	.59	.74
Gross Income	.21	.84		.75	.83
Total Expenses	.18	.59	.75		.37
Net Income	.13	.74	.83	.37	