
2001 JCO Orthodontic Practice Study

Part 2 Practice Success

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In the first article in this three-part series (JCO, October 2001), we discussed trends in orthodontic economics and practice administration over the 11 biennial JCO Orthodontic Practice Studies, and we summarized the methodology of the current Study. The complete results, methodology, and questionnaire are published separately (*2001 JCO Orthodontic Practice Study*, Index Publishers Corp., Boulder, CO, 2001).

This month's installment will cover the factors that appear to be related to practice success in terms of net income and numbers of case starts. Most of the tables in this section use mean figures because means are required for tests of statistical significance. Elsewhere in the Practice Study, most of the tables use medians, which are less influenced by extremely high and low responses and thus may be more representative of the average practice. Throughout the Study, the annual practice data, including income and numbers of cases, refer to the calendar year preceding the survey—in other words, to the year 2000.

Net Income Level

As in our previous surveys, the Practice Study respondents were arbitrarily divided into three net income categories to allow comparisons

among them: high (more than \$500,000), moderate (\$300,000-425,000), and low (less than \$235,000). About one-quarter of the respondents fell into each category; the remaining one-quarter were omitted from these tables to help sharpen the differences among the three net income groups. It should be noted that each of these practices was owned by one orthodontist, since multiple-owner practices were excluded from the main Study results.

The high net income practices demonstrated considerably more efficiency than the others, as in every previous report. Compared to the low income group, the high income group reported more than three times as much gross income, nearly five times as much net income, and nearly three times as many active cases—with a significantly lower overhead rate and a significantly higher net revenue per case (Table 8). The high net income practices achieved these results with fewer than twice the number of total employees and only slightly more satellite offices, total chairs, and annual hours worked compared to the low net income practices. There were no significant differences among the three groups in percentages of adults, patients covered by third parties, patients with third-party financing, or managed-care patients.

Although many of the practices in the low

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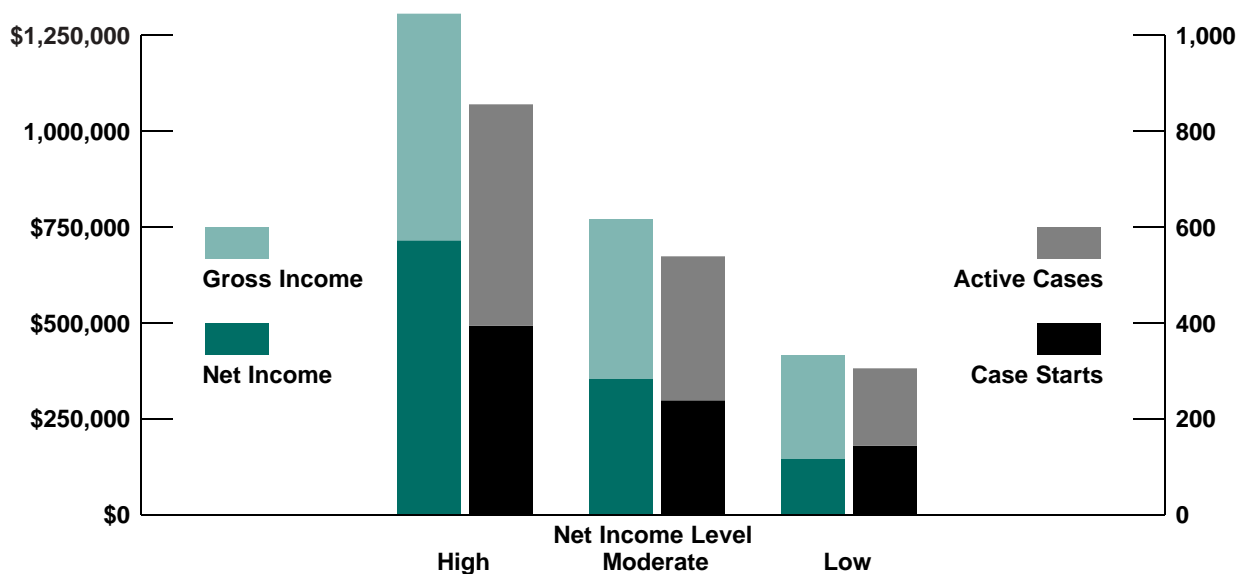
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**TABLE 8
SELECTED VARIABLES (MEANS) BY NET INCOME LEVEL**

	High	Moderate	Low
Number of Satellite Offices	0.8	0.6	0.5*
Full-Time Employees	7.8	5.5	3.6*
Part-Time Employees	2.1	1.4	1.4
Total Referrals	616.3	368.4	253.5*
Case Starts	398.7	236.8	142.1*
Adult Case Starts	24.1%	21.5%	22.9%
Active Treatment Cases	857.7	540.8	306.7*
Adult Active Cases	19.3%	17.6%	21.1%
Patients Covered by Third Party	42.1%	46.5%	45.0%
Patients with Third-Party Financing (such as Orthodontists Fee Plan)	32.0%	33.2%	34.8%
Patients Covered by Managed Care	8.5%	5.6%	11.1%
Total Chairs	6.5	5.5	4.7*
Annual Hours	1,691.7	1,662.4	1,653.7
Patients per Day	72.8	51.7	34.7*
Emergencies per Day	3.7	2.6	2.8*
Broken Appointments per Day	4.7	3.7	2.5*
Cancellations per Day	3.5	2.7	2.3*
Gross Income	\$1,306,075	\$770,232	\$412,262*
Overhead Rate	44%	52%	62%*
Net Income	\$712,530	\$353,686	\$148,318*
Net Income per Case	\$937	\$755	\$565*

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

**TABLE 9
SELECTED VARIABLES (MEDIAN) BY YEARS IN PRACTICE**

	Net Income	Gross Income	Overhead Rate	Case Starts	Active Cases
2-5 years	\$250,000*	\$620,000*	53%	200*	400*
6-10 years	375,000	800,000	52%	227	510
11-15 years	385,000	800,000	53%	250	538
16-20 years	429,342	865,000	51%	250	500
21-25 years	340,000	700,000	51%	225	499
26 or more years	325,000	650,000	52%	200	440

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

**TABLE 10
NET INCOME LEVEL BY GEOGRAPHIC REGION**

	High	Moderate	Low
New England (CT,ME,MA,NH,RI,VT)	22.2%	22.2%	55.6%
Middle Atlantic (NJ,NY,PA)	46.7	28.9	24.4
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	35.0	35.0	30.0
East South Central (AL,KY,MS,TN)	46.2	23.1	30.8
East North Central (IL,IN,MI,OH,WI)	24.5	51.0	24.5
West North Central (IA,KS,MN,MO,NE,ND,SD)	37.0	44.4	18.5
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	35.5	29.0	35.5
West South Central (AR,LA,OK,TX)	26.8	34.1	39.0
Pacific (AK,CA,HI,OR,WA)	31.9	20.3	47.8

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

	High	Moderate	Low
Child Fee (Permanent Dentition)	\$4,274	\$4,149	\$4,106
Adult Fee	\$4,610	\$4,465	\$4,379
1999 Fee Increase (Reported)	5.1%	4.4%	5.3%
2000 Fee Increase (Reported)	5.7%	4.7%	5.3%
Initial Payment	23.8%	24.1%	24.0%
Payment Period (months)	22.2	22.3	22.3

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

income group had apparently been established for less than six years or more than 20 years, there was no significant difference in overhead rate according to years in practice (Table 9). This table is the first in the JCO Studies to separate respondents who had been in practice for 21-25 years from those in practice for more than 25 years. It continues to show a decline in revenue and case starts after 20 years in practice, although the dropoff in active cases seems to occur later.

When respondents in the three net income

categories were divided geographically, the Middle Atlantic and East South Central regions had the highest percentages of respondents in the high net income group (Table 10). The West North Central region showed the lowest percentage of low net income respondents, and the New England and Pacific regions reported the highest percentages of low net income respondents.

There was no significant difference in fees or financial policies among the net income groups, although high net income practices charged somewhat higher fees than the other

**TABLE 12
MEAN CASE STARTS BY USE OF MANAGEMENT METHODS**

	Used	Not Used
Written philosophy of practice	271.4	221.3*
Written practice objectives	271.9	232.6*
Written practice plan	268.8	240.0
Written practice budget	269.0	241.2
Office policy manual	251.9	227.5
Office procedure manual	250.1	240.6
Written job descriptions	256.7	230.9
Written staff training program	262.9	237.8
Staff meetings	254.8	196.9*
Individual performance appraisals	262.8	214.6*
Measurement of staff productivity	295.6	234.6*
In-depth analysis of practice activity	281.5	229.0*
Practice promotion plan	268.9	234.7*
Dental management consultant	315.5	230.8*
Patient satisfaction surveys	263.4	239.1
Employee with primary responsibility as communications supervisor	282.9	233.2*
Progress reports	262.8	233.8*
Post-treatment consultations	248.2	244.8
Pretreatment flow control system	264.5	230.1*
Treatment flow control system	270.4	237.5*
Cases beyond estimate report	262.2	239.9
Profit and loss statements	256.1	215.1*
Delinquent account register	256.1	214.0*
Monthly accounts-receivable reports	254.6	209.7*
Monthly contracts-written reports	267.9	218.5*
Measurement of case acceptance	266.5	226.0*

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

practices did (Table 11).

Management Methods

Every management method listed on the questionnaire was associated with greater mean numbers of case starts for users than for non-users (Table 12). The differences in case starts were statistically significant for 17 of the 26 methods—the same number as in the 1999 Practice Study.

The high net income practices were more

likely to use each method than the low net income practices were, except for written job descriptions and post-treatment consultations (Table 13). Only monthly contracts-written reports, however, showed a significant difference in usage among the three income categories.

Delegation

Routine delegation of every task surveyed, as opposed to delegating occasionally or not at all, was also associated with greater mean num-

**TABLE 13
USE OF MANAGEMENT METHODS BY NET INCOME LEVEL**

	High	Moderate	Low
Written philosophy of practice	58%	48%	41%
Written practice objectives	42	28	33
Written practice plan	28	19	19
Written practice budget	17	21	13
Office policy manual	80	71	77
Office procedure manual	62	53	59
Written job descriptions	62	56	62
Written staff training program	35	33	31
Staff meetings	88	85	84
Individual performance appraisals	72	66	61
Measurement of staff productivity	24	15	17
In-depth analysis of practice activity	42	32	24
Practice promotion plan	40	26	32
Dental management consultant	25	15	11
Patient satisfaction surveys	31	27	26
Employee with primary responsibility as communications supervisor	32	24	23
Progress reports	44	39	37
Post-treatment consultations	34	36	35
Pretreatment flow control system	57	47	41
Treatment flow control system	30	24	25
Cases beyond estimate report	35	23	27
Profit and loss statements	87	76	72
Delinquent account register	83	77	75
Monthly accounts-receivable reports	87	85	75
Monthly contracts-written reports	68	60	41*
Measurement of case acceptance	51	50	46

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

bers of case starts (Table 14). The differences in case starts were statistically significant for every task except removal of residual adhesive, insertion of bonds, adjustment of archwires, progress reports, and post-treatment conferences.

The respondents in the high net income cat-

egory delegated each task more routinely than the practices in the low net income category did (Table 15). The differences in delegation among the three net income groups were statistically significant for x-rays; cephalometric tracings; impressions for appliances; fabrication of bands,

**TABLE 14
MEAN CASE STARTS BY DELEGATION**

	Routinely Delegated	Not Routinely Delegated
<i>Record-Taking</i>		
Impressions for study models	251.2	170.8*
X-rays	248.9	148.5*
Cephalometric tracings	266.9	226.2*
<i>Clinical</i>		
Impressions for appliances	255.1	202.1*
Removal of residual adhesive	258.1	234.9
Fabrication of:		
Bands	265.0	209.2*
Bonds	269.4	231.9*
Archwires	279.4	228.0*
Removable appliances	261.8	228.3*
Insertion of:		
Bands	290.8	231.0*
Bonds	269.0	242.4
Archwires	263.8	223.6*
Removable appliances	278.2	235.9*
Adjustment of:		
Archwires	277.4	241.1
Removable appliances	309.5	238.8*
Removal of:		
Bands	265.4	218.2*
Bonds	262.4	222.2*
Archwires	255.8	196.7*
<i>Administrative</i>		
Case presentation	308.7	225.5*
Fee presentation	264.8	208.1*
Financial arrangements	254.7	194.4*
Progress reports	267.1	240.4
Post-treatment conferences	281.1	239.3
Patient instruction and education	250.0	191.7*

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

bonds, and removable appliances; adjustment of removable appliances; and patient instruction and education.

Practice-Building Methods

There were no significant differences in

either usage or effectiveness ratings of practice-building methods among the three net income groups, as in the past two studies (Table 16). The most popular methods among the high net income practices (used by two-thirds or more) were: treat adult patients, on time for appointments, on-time case finishing, no-charge initial

**TABLE 15
ROUTINE DELEGATION BY NET INCOME LEVEL**

	High	Moderate	Low
<i>Record-Taking</i>			
Impressions for study models	96%	91%	86%
X-rays	100	96	92*
Cephalometric tracings	55	46	28*
<i>Clinical</i>			
Impressions for appliances	88	78	70*
Removal of residual adhesive	41	37	30
Fabrication of:			
Bands	78	61	43*
Bonds	45	28	23*
Archwires	41	26	21
Removable appliances	54	41	32*
Insertion of:			
Bands	32	21	20
Bonds	14	9	8
Archwires	53	55	44
Removable appliances	28	17	13
Adjustment of:			
Archwires	15	11	9
Removable appliances	17	5	4*
Removal of:			
Bands	59	59	45
Bonds	52	56	46
Archwires	83	81	71
<i>Administrative</i>			
Case presentation	31	23	15
Fee presentation	70	64	59
Financial arrangements	88	87	79
Progress reports	26	23	22
Post-treatment conferences	18	10	9
Patient instruction and education	93	90	75*

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

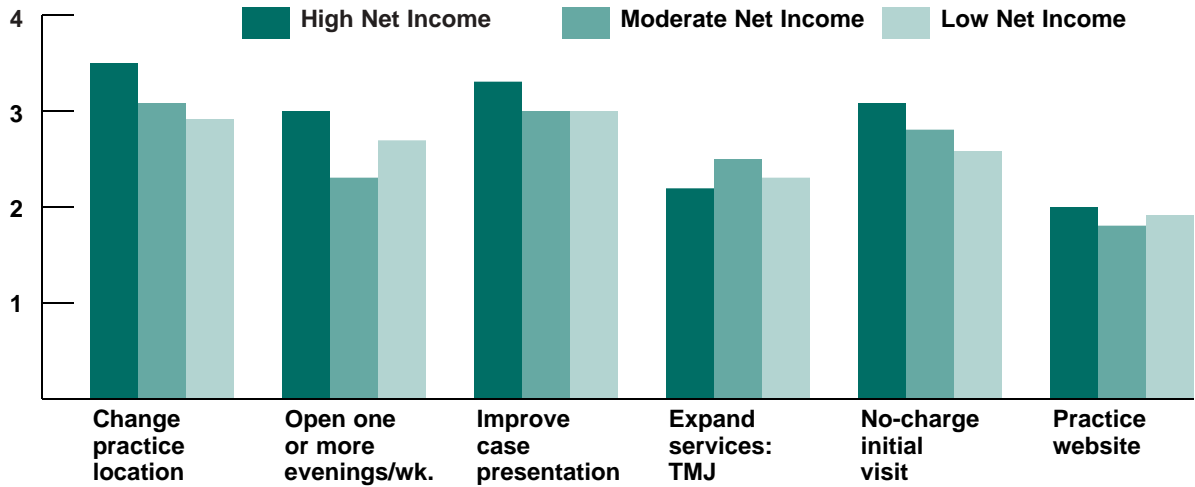
**TABLE 16
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL**

	High		Moderate		Low	
	Used	Rating†	Used	Rating†	Used	Rating†
Change practice location	29%	3.5	30%	3.1	27%	2.9
Expand practice hours:						
Open one or more evenings/week	15	3.0	16	2.3	30	2.7
Open one or more Saturdays/month	7	2.4	15	2.5	22	2.4
Open a satellite office	35	3.3	29	3.3	29	2.4
Participate in community activities	57	2.8	65	2.7	64	2.3
Participate in dental society activities	52	2.2	65	2.5	70	2.1
Seek referrals from general dentists:						
Letters of appreciation	67	2.6	72	2.7	78	2.6
Entertainment	56	2.8	61	2.6	52	2.5
Gifts	62	2.7	73	2.4	71	2.4
Education of GPs	37	2.8	42	2.6	27	2.8
Reports to GPs	66	2.9	74	2.7	70	2.6
Seek referrals from patients and parents:						
Letters of appreciation	67	3.0	62	2.7	61	2.7
Follow-up calls after difficult appointments	67	3.3	65	3.1	65	3.0
Entertainment	27	2.8	21	2.9	15	2.5
Gifts	41	2.8	33	2.6	36	2.6
Seek referrals from staff members	48	2.3	49	2.3	52	2.0
Seek referrals from other professionals (non-dentists)	22	2.2	25	2.3	26	2.3
Treat adult patients	84	2.9	84	2.6	87	2.7
Improve scheduling:						
On time for appointments	75	3.2	70	3.2	70	3.0
On-time case finishing	71	3.2	68	3.1	51	2.8
Improve case presentation	55	3.3	56	3.0	51	3.0
Improve staff management	48	3.2	43	3.0	41	3.0
Improve patient education	48	3.0	43	2.8	38	2.7
Expand services:						
TMJ	28	2.2	29	2.5	27	2.3
Functional appliances	37	2.8	34	2.7	32	2.5
Lingual orthodontics	15	2.0	11	1.5	7	1.9
Surgical orthodontics	51	2.3	44	2.3	37	2.3
Patient motivation techniques	41	2.5	29	2.5	37	2.9
No-charge initial visit	71	3.1	71	2.8	76	2.6
No-charge diagnostic records	17	2.8	11	3.1	14	2.7
No initial payment	18	2.3	11	3.2	19	2.5
Extended payment period	34	2.9	29	2.5	28	2.6
Practice newsletter	21	2.1	13	2.2	16	2.1
Practice website	29	2.0	17	1.8	17	1.9
Personal publicity in local media	18	2.8	14	2.5	20	2.1
Advertising:						
Telephone yellow pages						
Boldface listing	59	1.8	55	1.8	63	1.8
Display advertising	28	2.0	16	2.0	23	2.1
Local newspapers	18	2.4	14	2.0	19	1.7
Local TV	3	NA	3	NA	4	NA
Local radio	9	2.2	7	NA	9	1.1
Direct-mail promotion	9	2.7	10	2.3	14	1.8
Managed care	11	2.6	9	3.0	18	2.2
Management service affiliation	6	NA	6	NA	5	NA

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

Mean Effectiveness Ratings for Selected Practice-Building Methods

(4 = excellent; 3 = good; 2 = fair; 1 = poor)



visit, letters of appreciation to general dentists, letters of appreciation to patients and parents, and follow-up calls after difficult appointments.

The most successful practice-building methods might be those rated good (3.0) or better by the high net income practices that used them. These were: change practice location, open a satellite office, follow-up calls after difficult appointments, improve case presentation, on time for appointments, on-time case finishing, improve staff management, no-charge initial

visit, open one or more evenings per week, letters of appreciation to patients and parents, and improve patient education. Conversely, the methods rated fair (2.0) or worse by the low net income users were: radio advertising, newspaper advertising, yellow pages boldface listing, direct-mail promotion, lingual orthodontics, practice website, and seek referrals from staff members.

(TO BE CONTINUED)