

2005 JCO Orthodontic Practice Study

Part 2 Practice Success

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Last month's first installment in a series of reports on the 2005 JCO Orthodontic Practice Study (JCO, November 2005) described the overall trends in orthodontic economics and practice administration since these biennial surveys were initiated in 1981. Details of the Practice Study methodology were also provided. To see the complete data from the present survey, click on the link from this article in the JCO Online Archive at www.jco-online.com.

This article will cover the factors that appear related to practice success in terms of net income and numbers of case starts. Most of the tables shown in this part include means instead of medians, which are used elsewhere in the Practice Study, since means are required for tests of statistical significance. We have chosen a significance level ("p") of .01 rather than the conventional .05 because the large number of variables in the Study increases the possibility that chance may affect the data.

The annual figures in these tables, such as income and numbers of cases per year, refer to the preceding calendar year—in this case, 2004.

Net Income Level

As in every Practice Study to date, respondents were arbitrarily divided into three net in-

come categories to sharpen their differences for comparison. Because net income did not change substantially since the 2003 Study, the levels used in the present survey were the same: high (\$550,000 or more), moderate (\$300,000-475,000), and low (\$25,000-235,000). About one-quarter of the total respondents fell into each category; the remaining one-quarter were omitted from these tables only. It should be emphasized that each practice had a single orthodontist-owner, since practices with multiple owners were excluded from the basic Practice Study results.

The high net income practices handled more than twice as many active patients as the low net income practices, but still reported nearly twice the net income per case (Table 9). As in previous reports, the high net income practices were much more efficient, with about twice the number of employees and significantly lower overhead rates. More of the high net income practices offered third-party financing than the other respondents did, but the percentages of adult, third-party, and managed-care patients did not vary much across the board.

Orthodontists who had been in practice between 11 and 20 years appeared to be more productive than newer and older practices, although the 16-to-20-year group reported the highest overhead rates (Table 10).

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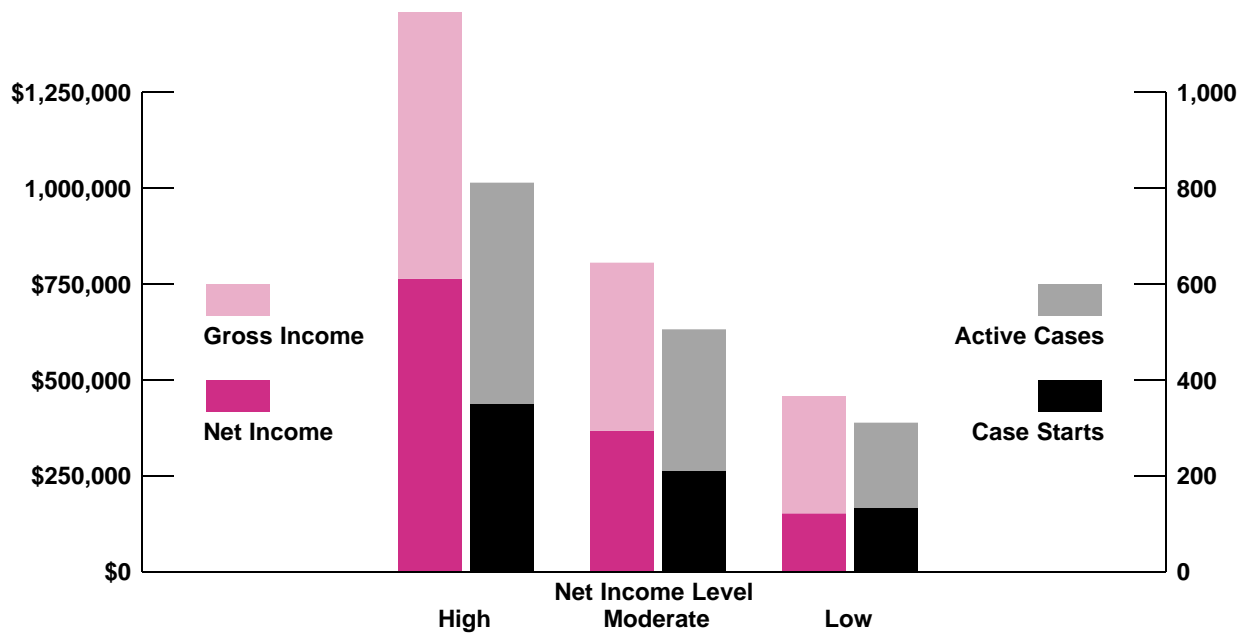


Dr. Nelson



Mr. Vogels

2005 JCO Orthodontic Practice Study



**TABLE 9
SELECTED VARIABLES (MEANS) BY NET INCOME LEVEL**

	High	Moderate	Low
Number of Satellite Offices	0.7	0.7	0.5
Full-Time Employees	7.9	4.6	3.1*
Part-Time Employees	1.9	1.9	1.5
Total Referrals	486.7	350.4	199.9*
Case Starts	351.5	211.8	130.3*
Adult Case Starts	24.9%	25.6%	26.8%
Active Treatment Cases	810.2	505.7	308.4*
Adult Active Cases	22.5%	21.9%	21.6%
Patients Covered by Third Party	49.5%	45.4%	47.9%
Patients Covered by Managed Care	2.9%	3.5%	1.4%
Offer Third-Party Financing (such as Orthodontists Fee Plan)	74.7%	57.6%	68.8%
Total Chairs	7.8	6.6	5.8*
Annual Hours	1,669.5	1,668.7	1,620.9
Patients per Day	69.2	46.4	35.8*
Emergencies per Day	3.8	2.5	2.0*
Broken Appointments per Day	4.1	2.9	2.5*
Cancellations per Day	3.4	2.7	2.1*
Gross Income	\$1,462,240	\$807,823	\$456,479*
Overhead Rate	46%	52%	64%*
Net Income	\$763,280	\$372,192	\$149,041*
Net Income per Case	\$1,199	\$854	\$578*

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

**TABLE 10
SELECTED VARIABLES (MEDIANS) BY YEARS IN PRACTICE**

	Net Income	Gross Income	Overhead Rate	Case Starts	Active Cases
2-5 years	\$250,000	\$617,000	54%	150*	380*
6-10 years	357,000	799,000	52%	211	350
11-15 years	400,000	895,000	54%	250	522
16-20 years	408,500	892,500	58%	231	594
21-25 years	400,000	900,000	51%	191	495
26 or more years	345,000	720,000	54%	180	410

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

**TABLE 11
NET INCOME LEVEL BY GEOGRAPHIC REGION**

	High	Moderate	Low
New England (CT,ME,MA,NH,RI,VT)	33.3%	26.7%	40.0%
Middle Atlantic (NJ,NY,PA)	52.2	28.3	19.6
South Atlantic (DE,DC,FL,GA,MD,NC,SC,VA,WV)	29.2	29.2	41.7
East South Central (AL,KY,MS,TN)	60.0	20.0	20.0
East North Central (IL,IN,MI,OH,WI)	29.5	38.6	31.8
West North Central (IA,KS,MN,MO,NE,ND,SD)	50.0	31.3	18.8
Mountain (AZ,CO,ID,MT,NV,NM,UT,WY)	28.0	32.0	40.0
West South Central (AR,LA,OK,TX)	26.9	38.5	34.6
Pacific (AK,CA,HI,OR,WA)	34.0	29.8	36.2

**TABLE 12
MEAN FEES AND FINANCIAL POLICIES
BY NET INCOME LEVEL**

	High	Moderate	Low
Child Fee (Permanent Dentition)	\$4,877	\$4,719	\$4,548*
Adult Fee	\$5,294	\$5,135	\$4,945*
2003 Fee Increase (Reported)	4.1%	3.7%	4.5%
2004 Fee Increase (Reported)	3.9%	4.2%	4.4%
Initial Payment	23.0%	24.0%	23.6%
Payment Period (months)	21.2	22.5	21.6

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

When the three net income groups were subdivided by geographic region, the East South Central region showed the highest percentage of respondents in the high net income group, and the West South Central region the lowest percentage (Table 11). The West North Central and Middle Atlantic regions had the lowest percentages of low net income respondents; the South Atlantic region had the highest percentage.

The high net income practices reported significantly higher fees than in the other two categories (Table 12), which could account for some

of their income disparity. Fee increases and payment policies were not substantially different.

Management Methods

Differences among the three net income groups in terms of management methods used were less pronounced than in the last three Practice Studies. Still, most of the management methods were associated with significantly greater mean numbers of case starts for users than for non-users (Table 13). Users also report-

**TABLE 13
MEAN CASE STARTS BY USE OF MANAGEMENT METHODS**

	Used	Not Used
Written philosophy of practice	250.7	213.0*
Written practice objectives	254.8	222.9*
Written practice plan	247.3	228.5
Written practice budget	255.3	228.2
Office policy manual	244.3	195.1*
Office procedure manual	239.2	225.1
Written job descriptions	245.4	213.8
Written staff training program	249.6	226.0
Staff meetings	245.2	184.0*
Individual performance appraisals	254.0	195.3*
Measurement of staff productivity	279.5	223.6*
In-depth analysis of practice activity	263.0	218.4*
Practice promotion plan	266.3	215.7*
Dental management consultant	299.8	218.5*
Patient satisfaction surveys	266.1	219.1*
Employee with primary responsibility as communications supervisor	250.2	227.4
Progress reports	240.8	228.3
Post-treatment consultations	230.5	234.1
Pretreatment flow control system	262.4	208.7*
Treatment flow control system	261.3	223.8
Cases beyond estimate report	246.0	227.0
Profit and loss statements	243.4	207.8
Delinquent account register	238.1	216.0
Monthly accounts-receivable reports	240.2	205.0
Monthly contracts-written reports	250.9	213.4*
Measurement of case acceptance	261.7	203.7*

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

ed more mean case starts than non-users did for every item except post-treatment consultations.

The high net income practices were as likely as or more likely than moderate or low net income practices to use every management method except staff meetings, post-treatment consultations, and monthly accounts-receivable reports (Table 14). These differences were statistically significant for written practice objectives, staff meetings, individual performance appraisals, measurement of staff productivity, practice promotion plan, dental management consultant,

patient satisfaction surveys, pretreatment flow control system, and measurement of case acceptance.

Delegation

As in past Studies, routine delegation, rather than delegating occasionally or not at all, was associated with a greater mean number of case starts (Table 15). The only tasks for which the differences were not statistically significant were insertion of bonds, adjustment of archwires

**TABLE 14
USE OF MANAGEMENT METHODS BY NET INCOME LEVEL**

	High	Moderate	Low
Written philosophy of practice	63%	46%	47%
Written practice objectives	43	26	24*
Written practice plan	30	19	18
Written practice budget	23	19	9
Office policy manual	84	74	72
Office procedure manual	57	56	48
Written job descriptions	62	53	56
Written staff training program	35	28	26
Staff meetings	86	70	90*
Individual performance appraisals	73	52	66*
Measurement of staff productivity	26	11	12*
In-depth analysis of practice activity	46	27	31
Practice promotion plan	49	26	35*
Dental management consultant	29	15	11*
Patient satisfaction surveys	42	21	20*
Employee with primary responsibility as communications supervisor	29	19	20
Progress reports	44	36	34
Post-treatment consultations	34	42	31
Pretreatment flow control system	59	36	38*
Treatment flow control system	28	18	21
Cases beyond estimate report	32	28	30
Profit and loss statements	75	72	69
Delinquent account register	80	80	72
Monthly accounts-receivable reports	82	83	73
Monthly contracts-written reports	53	53	44
Measurement of case acceptance	65	38	43*

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

and removable appliances, and patient instruction and education.

The high net income practices were the most likely to delegate every task routinely, except for insertion of bonds and adjustment of archwires and removable appliances, all of which were delegated by relatively few practices (Table

16). The differences in routine delegation were statistically significant for taking impressions for study models and appliances; cephalometric tracings; removal of residual adhesive; fabrication of bands; insertion of archwires; removal of bands, bonds, and archwires; case and fee presentations; and progress reports.

**TABLE 15
MEAN CASE STARTS BY DELEGATION**

	Routinely Delegated	Not Routinely Delegated
<i>Record-Taking</i>		
Impressions for study models	240.5	130.3*
X-rays	235.3	157.2*
Cephalometric tracings	270.7	199.8*
<i>Clinical</i>		
Impressions for appliances	243.0	173.0*
Removal of residual adhesive	271.7	204.9*
Fabrication of:		
Bands	251.1	200.2*
Archwires	267.0	216.6*
Removable appliances	257.2	211.1*
Insertion of:		
Bands	265.0	216.4*
Bonds	257.8	225.9
Archwires	249.3	200.9*
Removable appliances	265.1	216.4*
Adjustment of:		
Archwires	253.6	225.9
Removable appliances	240.7	227.6
Removal of:		
Bands	257.1	197.0*
Bonds	258.4	198.2*
Archwires	240.4	181.0*
<i>Administrative</i>		
Case presentation	294.7	211.1*
Fee presentation	244.4	194.3*
Financial arrangements	236.1	181.9*
Progress reports	267.2	217.9*
Post-treatment conferences	278.8	217.8*
Patient instruction and education	237.6	163.5

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

Practice-Building Methods

Over the past decade, the use of practice-building methods and the rating of their effectiveness have not been significantly related to net income level (Table 17). In the present Study, however, the methods rated good (3.0) or better by the high net income practices were (from

highest to lowest ratings): open a satellite office, change practice location, follow-up calls after difficult appointments, on time for appointments, improve case presentation, on-time case finishing, improve staff management, improve patient education, no-charge initial visit, and open one or more evenings per week.

Methods used by at least two-thirds of the

**TABLE 16
ROUTINE DELEGATION BY NET INCOME LEVEL**

	High	Moderate	Low
<i>Record-Taking</i>			
Impressions for study models	99%	93%	85%*
X-rays	98	94	94
Cephalometric tracings	57	44	25*
<i>Clinical</i>			
Impressions for appliances	88	84	72*
Removal of residual adhesive	50	26	24*
Fabrication of:			
Bands	68	50	48*
Archwires	33	24	20
Removable appliances	48	42	34
Insertion of:			
Bands	31	23	20
Bonds	7	8	6
Archwires	62	55	42*
Removable appliances	21	12	11
Adjustment of:			
Archwires	10	11	7
Removable appliances	5	7	6
Removal of:			
Bands	71	45	38*
Bonds	68	44	31*
Archwires	86	80	68*
<i>Administrative</i>			
Case presentation	32	23	11*
Fee presentation	78	67	56*
Financial arrangements	91	87	81
Progress reports	34	17	17*
Post-treatment conferences	21	13	11
Patient instruction and education	94	91	84

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

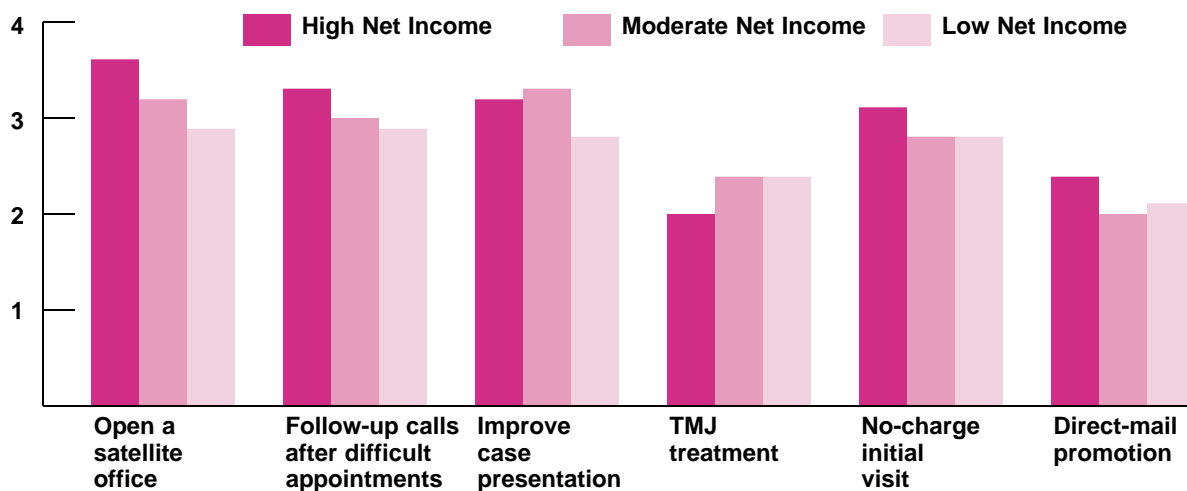
**TABLE 17
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL**

	High		Moderate		Low	
	Used	Rating†	Used	Rating†	Used	Rating†
Change practice location	26%	3.3	18%	3.3	29%	3.1
Expand practice hours:						
Open one or more evenings/week	21	3.0	12	2.7	11	3.0
Open one or more Saturdays/month	8	2.4	14	2.5	11	2.4
Open a satellite office	40	3.6	30	3.2	23	2.9
Participate in community activities	64	2.7	51	2.5	56	2.4
Participate in dental society activities	60	2.3	57	2.3	61	2.1
Seek referrals from general dentists:						
Letters of appreciation	76	2.7	69	2.6	65	2.5
Entertainment	59	2.7	48	2.3	48	2.4
Gifts	77	2.4	64	2.4	65	2.2
Education of GPs	38	2.7	24	2.4	29	2.4
Reports to GPs	81	2.6	70	2.6	68	2.6
Seek referrals from patients and parents:						
Letters of appreciation	73	2.8	83	2.8	49	2.8
Follow-up calls after difficult appointments	71	3.3	54	3.0	60	2.9
Entertainment	28	2.9	12	2.7	21	2.6
Gifts	44	2.6	23	2.7	37	2.5
Seek referrals from staff members	52	2.1	45	2.4	44	2.1
Seek referrals from other professionals (non-dentists)	27	1.9	28	1.9	25	2.3
Treat adult patients	84	2.9	76	2.9	80	2.8
Improve scheduling:						
On time for appointments	78	3.3	70	3.1	65	2.9
On-time case finishing	77	3.1	66	3.1	48	2.7
Improve case presentation	60	3.2	40	3.3	32	2.8
Improve staff management	57	3.1	33	3.1	31	2.8
Improve patient education	53	3.1	34	3.0	43	2.8
Expand services:						
TMJ	26	2.0	25	2.4	21	2.4
Functional appliances	28	2.7	29	2.5	18	2.8
Lingual orthodontics	8	1.7	6	1.6	5	NA
Surgical orthodontics	43	2.5	35	2.6	30	2.2
Invisalign treatment	71	2.5	49	2.2	44	2.5
Patient motivation techniques	43	2.7	22	2.8	33	2.5
No-charge initial visit	83	3.1	64	2.8	74	2.8
No-charge diagnostic records	24	2.9	17	2.9	13	2.6
No initial payment	13	2.6	14	2.6	11	2.8
Extended payment period	32	2.5	31	2.7	40	2.9
Practice newsletter	21	2.2	9	1.9	8	2.1
Personal publicity in local media	20	2.5	4	NA	20	2.1
Advertising:						
Telephone yellow pages						
Boldface listing	59	1.7	49	1.9	52	1.8
Display advertising	36	1.7	13	1.8	20	1.8
Local newspapers	23	2.0	10	2.3	31	2.1
Local TV	3	NA	1	NA	7	NA
Local radio	8	NA	2	NA	6	NA
Direct-mail promotion	8	2.4	13	2.0	13	2.1
Managed care	16	2.3	12	2.6	12	2.5
Management service affiliation	2	NA	2	NA	0	NA

†4 = excellent; 3 = good; 2 = fair; 1 = poor; NA = too few responses to calculate accurately.

Mean Effectiveness Ratings for Selected Practice-Building Methods

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



high net income practices were (in descending order of popularity): treat adult patients, no-charge initial visit, reports to GPs, on time for appointments, on-time case finishing, gifts and letters of appreciation to GPs, letters of appreciation to patients and parents, follow-up calls after difficult appointments, and Invisalign treatment.

At the other end of the scale, the practice-

building methods rated fair (2.0) or worse by the high net income respondents who had tried them were (from lowest to highest ratings): lingual orthodontics, yellow-pages advertising, seek referrals from other professionals, TMJ treatment, and local newspaper advertising.

(TO BE CONTINUED)