

2023 JCO Orthodontic Practice Study

Part 2 Practice Success

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Part 1 in our three-part series (JCO, October 2023) discussed trends in orthodontic economics and practice administration since the first JCO Orthodontic Practice Study was conducted in 1981. This article focuses on factors that seem related to practice success, based on net income and case starts. As usual, the complete tables and questionnaire will be available to JCO subscribers in our Online Archive at www.jco-online.com.

Part 1 included a box describing the methodology used in this 22nd biennial survey, which was

conducted primarily online. An important note for most of the tables in Part 2 is that we have always used a probability level (“p” value) of .01 rather than the more usual .05 for tests of statistical significance, because the high number of variables in the Study makes it more likely that the results could be affected by chance. Boldface type indicates especially noteworthy (not necessarily statistically significant) results in each table. All annual practice data, including income and numbers of cases, refer to the preceding calendar year—in this case, 2022.



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Net Income Level

In every Practice Study, respondents have been divided into three net income groups to allow more in-depth analysis of factors related to practice success. The current income categories of high (more than \$900,000), moderate (\$475,000-900,000), and low (less than \$475,000) were designed to provide roughly equal percentages of the total respondents. Before the 2015 Study, the groupings intentionally omitted about one-fourth of the overall sample, with the intention of sharp-

ening differences in variables among the net income categories.

In this survey, high net income translated to more than four times the gross income and nearly five times the number of case starts and active cases as in the low net income group (Table 11). The mean number of case starts in low net income practices was actually lower than in the 2021 Study (151).

Although overhead rates were significantly lower in high net income practices, net income per case was not significantly higher, indicating correspondingly higher overall expenses. High net in-

**TABLE 11
SELECTED VARIABLES (MEANS) BY NET INCOME LEVEL**

	High	Moderate	Low
Number of Satellite Offices	1.0	0.8	0.1*
Full-Time Employees	12.4	7.7	3.9*
Part-Time Employees	1.8	1.0	1.1
New-Patient Consultations	848	528	225*
Case Starts	616	342	132*
Adult Case Starts	40%	42%	39%
Active Treatment Cases	1,336	769	274*
Adult Active Cases	27%	38%	37%
Patients Covered by Third Party	74%	60%	47%
Patients Covered by Managed Care	6%	2%	6%
Offer Third-Party Financing Plan	37%	53%	41%
Medicaid as Highest Payment Source	0%	0%	13%
Orthodontist-Owner Hours/Week	40	44	32*
Patients per Day	96	42	25*
Percentage of Total Active Cases per Day	7%	5%	10%
Gross Income	\$3,103,031	\$1,749,589	\$716,859*
Overhead Rate	51%	58%	66%*
Net Income	\$1,477,478	\$711,059	\$226,765*
Net Income per Case	\$1,226	\$1,086	\$927

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

come practices reported three times the number of full-time employees as in low net income practices, and they had an average of one satellite office, compared to .1. They reported nearly four times the number of new-patient consultations in the previous year, as well as a significantly higher number of consultations per office (Fig. 3). While they saw nearly four times more patients per day than the low net income practices did, this represented a lower percentage of their total active cases per day.

No significant differences were noted in percentages of adult, third-party, or managed-care

patients. Medicaid was the No. 1 source of payments in 13% of the low net income practices, compared to none of the high or moderate net income practices. Orthodontist-owners in the low net income group worked significantly fewer hours per week than those in the other groups, which could be a reflection of lower patient volume.

Newer practices seemed to find it more challenging to increase their net income than in previous Studies, considering that none of the respondents in practice for two to seven years were in the high net income group (Table 12). The percentage

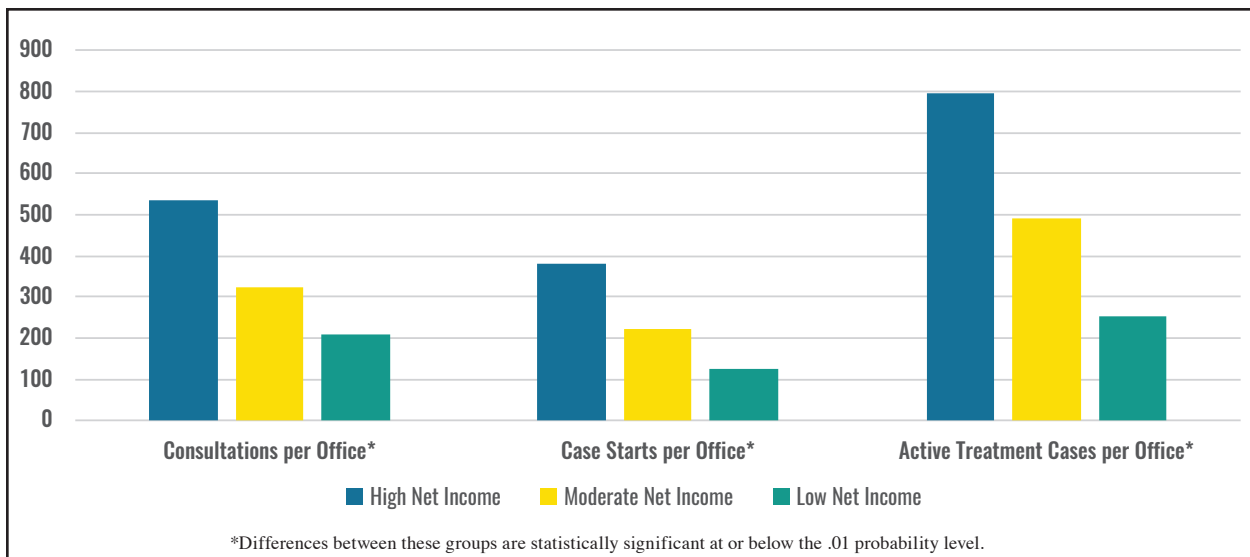


Fig. 3 Practice activity by office location (including satellites).

**TABLE 12
NET INCOME LEVEL BY YEARS IN PRACTICE**

	High	Moderate	Low
2-7 years	0%	50%	50%
8-13 years	42	17	29
14-20 years	50	38	13
21-30 years	33	40	27
31 or more years	31	38	31

TABLE 13
NET INCOME LEVEL BY GEOGRAPHIC REGION

	High	Moderate	Low
Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT)	10%	40%	50%
South (AL, DC, DE, FL, GA, MD, MS, NC, PR, SC, TN, VA)	42	50	8
Midwest (IL, IN, IA, KY, MI, MN, MO, OH, WV, WI)	57	29	14
West Central (AZ, AR, CO, ID, KS, LA, MT, NE, NV, NM, ND, OK, SD, TX, UT, WY)	31	25	44
Pacific (AK, CA, HI, OR, WA)	40	30	30

TABLE 14
MEAN FEES AND FINANCIAL POLICIES BY NET INCOME LEVEL

	High	Moderate	Low
Child fee (permanent dentition)	\$5,799	\$6,120	\$6,119
Adult fee	\$6,436	\$6,555	\$6,529
Fees increased every 12 months or more often	58%	79%	49%
Fees increased every 24 months	21%	11%	12%
Fees increased every 36 months or less often	11%	0%	6%
Fees increased not on a regular basis	11%	11%	35%
Initial payment	11%	15%	17%
Payment period (months)	23	23	22

of respondents in the high net income category followed a bell curve, peaking at 14-20 years in practice.

As in every Practice Study since 2015, when geographic regions were consolidated from nine to five, there were no significant differences in net income level by region (Table 13). The highest percentage of high net income practices was in the Midwest, while the highest percentage of low net income practices was in the Northeast (as in the 2021 Study).

Differences in child and adult case fees among the net income categories were not statis-

tically significant, but the high net income practices did show the greatest differential between child and adult fees at 10% (Table 14). Moderate net income practices were the most likely to raise their fees every 12 months or more often, while low net income practices were by far the most likely to raise theirs on an irregular basis. Initial payments and payment periods were not significantly different among the three groups.

Management Methods

In every Practice Study, users of the manage-

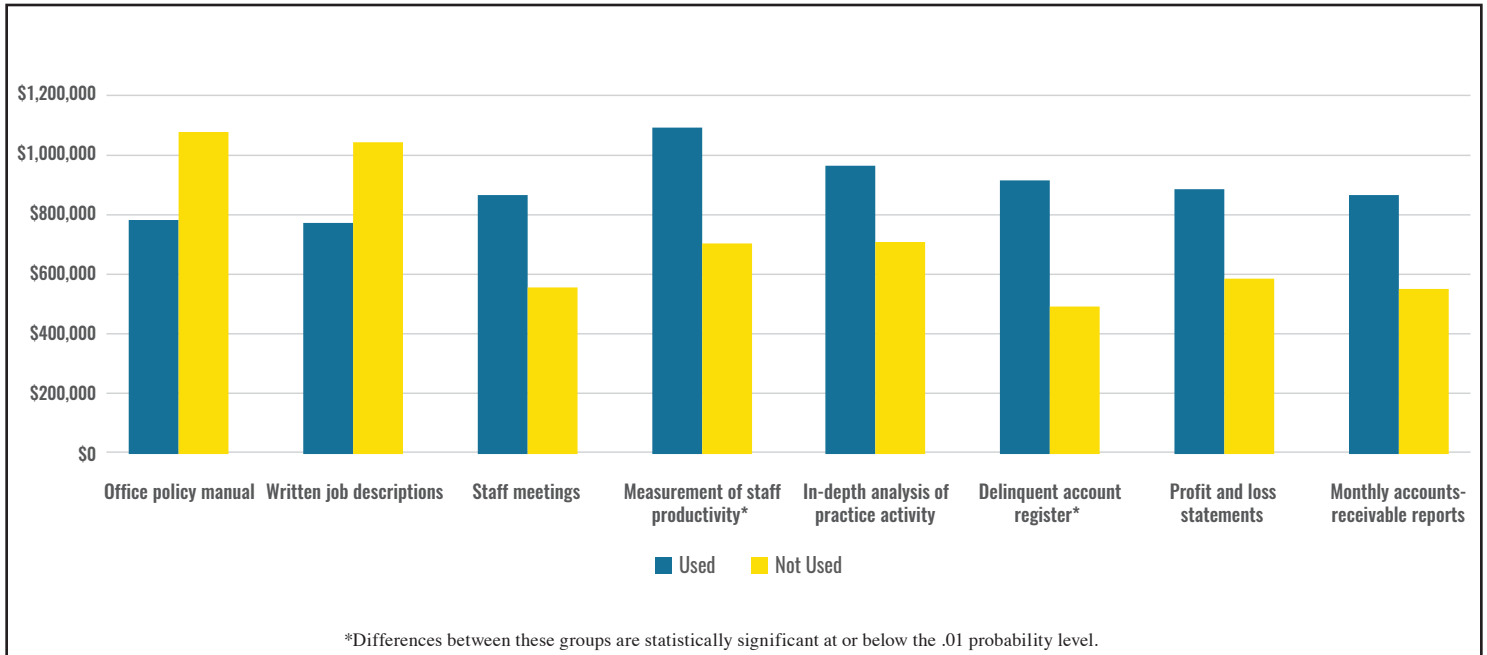


Fig. 4 Mean net income by use of various management methods.

ment methods listed on the questionnaire have generally reported higher numbers of mean case starts than non-users have (Table 15). In the present survey, two categories (staff meetings and measurement of case acceptance) showed statistically significant differences and two others (delinquent account register and monthly accounts-receivable reports) showed notable differences. The only methods for which non-users reported more mean case starts than users were office policy manual, written job descriptions, individual performance appraisals, third-party digital marketing consultant, patient satisfaction surveys, post-treatment consultations, and pretreatment flow control system. Overall, the advantage for users seemed to be slightly less marked than in the 2021 Study, but comparable to the 2019 Study.

When respondents were broken down by net income category (Table 16), there were statistically significant differences in the usage of measurement of staff productivity, in-depth analysis of practice activity, and treatment flow control system, as well as noteworthy differences for written

philosophy of practice, written practice objectives, written practice plan, staff meetings, individual performance appraisals, dental management consultant, employee with primary responsibility as communications supervisor, progress reports, post-treatment consultations, cases beyond estimate report, profit and loss statements, delinquent account register, and measurement of case acceptance (Fig. 4). These differences were sharper than in the previous two Studies. Staff meetings were not only more common, but also more frequent in the high net income group: among those who held any staff meetings, 83% of the high net income respondents reported holding them monthly or more often, compared to 61% of the moderate net income group and 69% of the low net income group.

When these results and other factors such as mean net income, overhead, gross income, and net income per case are taken into account, the management methods with the strongest relationship to practice success over the past 10 years have been individual performance appraisals, staff meetings,

TABLE 15
MEAN CASE STARTS BY USE OF MANAGEMENT METHODS

	Used	Not Used
Written philosophy of practice	374	357
Written practice objectives	386	359
Written practice plan	397	358
Written practice budget	393	362
Office policy manual	354	450
Office procedure manual	372	363
Written job descriptions	358	396
Written staff training program	369	368
Staff meetings	393	200*
Individual performance appraisals	369	371
Measurement of staff productivity	424	342
In-depth analysis of practice activity	411	336
Practice promotion plan	421	345
Dental management consultant	441	342
Third-party digital marketing consultant	333	397
Patient satisfaction surveys	352	376
Employee with primary responsibility as communications supervisor	374	367
Progress reports	392	358
Post-treatment consultations	336	384
Pretreatment flow control system	360	380
Treatment flow control system	408	348
Cases beyond estimate report	386	344
Profit and loss statements	383	314
Delinquent account register	392	287
Monthly accounts-receivable reports	380	277
Monthly contracts-written reports	386	323
Measurement of case acceptance	418	276*

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

TABLE 16
USE OF MANAGEMENT METHODS BY NET INCOME LEVEL

	High	Moderate	Low
Written philosophy of practice	79%	68%	59%
Written practice objectives	53	26	29
Written practice plan	32	48	18
Written practice budget	32	26	18
Office policy manual	79	89	82
Office procedure manual	58	68	53
Written job descriptions	74	79	82
Written staff training program	37	58	35
Staff meetings	95	95	76
Individual performance appraisals	79	68	41
Measurement of staff productivity	58	36	0*
In-depth analysis of practice activity	63	63	12*
Practice promotion plan	32	32	24
Dental management consultant	37	32	18
Third-party digital marketing consultant	35	47	47
Patient satisfaction surveys	32	47	29
Employee with primary responsibility as communications supervisor	42	16	12
Progress reports	42	21	29
Post-treatment consultations	47	32	24
Pretreatment flow control system	63	63	59
Treatment flow control system	47	37	6*
Cases beyond estimate report	58	68	41
Profit and loss statements	84	95	65
Delinquent account register	95	79	65
Monthly accounts-receivable reports	95	89	82
Monthly contracts-written reports	84	63	76
Measurement of case acceptance	79	79	59
Use a computer for inventory management	37	21	12
Use a computer for recall	95	95	82
Use a computer for treatment records	84	89	94
Patient access to account and schedule	26	26	0
Patient access to own records	21	16	0
Text messaging	100	100	88

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

monthly accounts receivable reports, and profit and loss statements (in that order). The methods with the weakest relationship to practice success have been post-treatment conferences, written job descriptions, progress reports, cases beyond estimate, and office procedure manual.

Of the computer functions listed on the survey, there were noteworthy differences among the three net income groups in the usage of inventory management, patient access to account and sched-

ule, patient access to own records, and text messaging (Table 16). Only computerized treatment records were used more by the low net income practices than by the other respondents.

Delegation

As in every Practice Study to date, routine delegation of virtually every task listed in the survey (compared to occasionally or never delegating)

**TABLE 17
MEAN CASE STARTS BY DELEGATION**

	Routinely Delegated	Not Routinely Delegated
Record-Taking		
Impressions for study models	377	NA
X-rays	367	NA
Cephalometric tracings	428	331
Clinical		
Appliance fitting	489	238*
Appliance bonding	507	326
Archwire changes	381	283
Appliance insertion	444	317
Appliance adjustment	NA	332
Appliance removal	408	322
Removal of residual adhesive	426	340
Administrative		
Case presentation	401	361
Fee presentation	384	194
Financial arrangements	371	249
Follow-up communication with prospective patients	390	245
Progress reports	360	371
Post-treatment conferences	385	329
Patient instruction and education	375	NA

*Differences between these groups are statistically significant at or below the .01 probability level. NA indicates too few responses to calculate accurately.

was associated with a greater number of mean case starts (Table 17). (Several tasks had too few respondents to allow accurate calculation.) Differences were statistically significant for appliance fitting and noteworthy for appliance bonding and insertion, fee presentation, and follow-up communication with prospective patients.

Every task except x-rays was delegated more routinely by high net income practices than by low net income practices (Table 18). Differences among the three net income categories were statistically significant for appliance fitting and removal of residual adhesive; the difference between low net income respondents and the other two groups was

**TABLE 18
ROUTINE DELEGATION BY NET INCOME LEVEL**

	High	Moderate	Low
Record-Taking			
Impressions for study models	100%	95%	82%
X-rays	95	100	100
Cephalometric tracings	44	32	18
Clinical			
Appliance fitting	68	53	24*
Appliance bonding	21	37	6
Archwire changes	89	95	76
Appliance insertion	47	37	41
Appliance adjustment	17	16	6
Appliance removal	68	63	38**
Removal of residual adhesive	58	32	12*
Administrative			
Case presentation	32	16	18
Fee presentation	100	89	82
Financial arrangements	100	100	94
Follow-up communication with prospective patients	100	95	76
Progress reports	44	47	24
Post-treatment conferences	22	32	12
Patient instruction and education	95	89	88
Delegation score†	1.5	1.3	1.1*

†Average delegation across all tasks, where 2 = routinely; 1 = sometimes; 0 = never.

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

**Differences between one group and the remaining groups are statistically significant at or below the .01 probability level.

statistically significant for appliance removal. Other tasks showing notable differences in routine delegation were impressions for study models, cephalometric tracings, archwire changes, fee presentation, follow-up communication with prospective patients, and progress reports. The difference in total “delegation score”—averaging delegation across all tasks—was also statistically significant.

Practice-Building Methods

In the category of expanded services, there were significant differences in usage for opening a satellite office and surgical orthodontics, and noteworthy differences for lingual orthodontics, cosmetic/laser treatment, and managed care (Table 19A). These methods tended to be used most by the moderate net income practices, the exceptions being lingual orthodontics (used most by the low net income group) and surgical orthodontics, cosmetic/laser treatment, and managed care (used most by the high net income group). Changing

practice location was rated by far the most effective method in all three net income groups.

Among external marketing methods, Google Ads and other online advertising were generally ranked as being the most effective in terms of improving profits (Table 19B). Of the other external marketing methods, the ones ranked highest by the high net income respondents were Facebook page, TikTok, and Instagram; methods ranked highest by the moderate net income respondents were Facebook page, videos on website, and personal publicity in local media. At the other end of the spectrum, the methods ranked lowest by the low net income respondents were personal publicity in local media, Twitter, and practice blog. Only 5% of the high net income group had used none of the five social-media methods, compared with 11% of the moderate net income group and 18% of the low net income group. Conversely, however, the low net income respondents ranked these methods as significantly more effective, with an average ranking of 1.6, compared to 2.6 for the high net income

**TABLE 19A
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL: EXPANDED SERVICES**

	High		Moderate		Low	
	Used	Rating†	Used	Rating†	Used	Rating†
Change practice location	21%	3.5	42%	3.9	24%	3.8
Expand practice hours	12	2.7	16	2.3	5	2.0
Open a satellite office	53*	2.9	68	3.0	6	3.0
Expand Services						
TMD	21	1.4	53	1.9	12	2.0
Lingual orthodontics	0	1.0	6	1.6	12	1.8
Surgical orthodontics	95*	2.1	89	2.6	65	2.6
Cosmetic/laser treatment	47	2.2	28	3.6	25	2.4
Managed care	42	2.8	21	2.3	35	1.7
Affiliation with management service organization	5	NA	0	NA	0	NA

†4 = excellent; 3 = good; 2 = fair; 1 = poor; NA = too few responses to calculate accurately.
*Differences between these groups are statistically significant at or below the .01 probability level.

TABLE 19B
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL: EXTERNAL MARKETING

	High		Moderate		Low	
	Used	Rank (mean)†	Used	Rank (mean)†	Used	Rank (mean)†
<i>Paid Advertising</i>						
Google search advertising	47%	1.4	47%	1.5	47%	1.6
Other online advertising	37	2.0	42	1.7	41	1.3
Direct-mail promotion	5	2.8	11	2.4	6	2.0
Local TV/radio	5	3.0	5	3.0	0	4.0
Local newspapers	5	3.3	16	3.1	0	4.0
Yellow pages paid advertising	0	3.4	11	3.3	0	3.5
<i>Other External Marketing</i>						
Facebook page	89	1.7	84	1.6	76	1.5
Instagram	89	2.4	74	2.7	65	2.2
Videos on website	53	2.9	47	2.3	29	3.2
TikTok	42*	1.7	32	3.6	6	3.0
Solicit personal publicity in local media	5	4.8	26	2.6	0	4.8
YouTube	21	5.4	32	4.8	12	2.3
Blog	32	3.9	16	4.0	18	3.3
Practice newsletter	5	5.5**	5	3.6	0	2.8
Twitter	21	5.1	11	5.5	6	4.0

†Respondents who had used each method ranked its effectiveness in improving profit compared to the other methods, with 1 being the best.

respondents and 2.3 for the moderate net income respondents. Moreover, the Internet was the top source of referrals for 21% of the low net income practices, compared to 9% of the high net income practices (Fig. 5).

Participation in community activities was still the highest-ranked external method of promoting referrals among the high and moderate net income respondents; the low net income respondents ranked it fourth and were significantly less likely to use it (Table 19C). On the other hand, the low net income group ranked reports to GPs first

among the external methods, while the high and moderate net income groups viewed reports to GPs less favorably than in the past two Studies. This ranking was not necessarily reflected in patient starts, since 45% of the high net income practices listed GPs as their top source of referrals, compared to 32% of the low net income practices (Fig. 5). There were significant differences among the three groups in the use of referrals from staff members and notable differences in the use of referral awards and letters of appreciation to patients and parents, all inversely related to net income level.

**TABLE 19C
PRACTICE-BUILDING METHODS BY NET INCOME LEVEL: REFERRALS AND INCENTIVES**

	High		Moderate		Low	
	Used	Rank (mean)†	Used	Rank (mean)†	Used	Rank (mean)†
External Referrals						
Gifts and entertainment to GPs	84%	3.0	89%	2.7	88	2.8
Participate in community activities	84	2.8	84	2.7	53**	3.5
Letters of appreciation to GPs	63	2.9	68	3.8	65	3.1
Reports to GPs	68	3.5	74	3.4	71	2.5
Education of GPs	37	4.0	47	3.9	47	4.3
Participate in dental society activities	42	4.9	84	3.7	35	4.8
Seek referrals from other professionals (non-dentists)	47	4.4	47	4.4	24	4.9
Internal Referrals						
Referral awards to patients and parents	63	2.5	53	1.7	41	2.6
Follow-up calls after difficult appointments	84	2.2	68	2.4	76	2.0
Letters of appreciation to patients and parents	74	1.8	53	2.1	41	1.9
Seek referrals from staff members	74*	3.2	58	3.3	29	3.0
Entertainment of patients and parents	42	3.8	37	2.9	6**	3.3
New-Patient Incentives						
No-charge initial visit	100	2.3	100	1.7	82**	1.4
Extended payment period	79	2.7	95	2.8	82	3.5
No-charge diagnostic records	79	4.3	68	3.5	53	3.1
Discount for up-front payment	95	4.5	89	4.3	88	2.8*
Same-day start	84	3.3	84	4.1	65	4.1
Use digital case presentation	79	4.3	79	3.9	47**	4.0
No initial payment	26**	4.0	11	3.5	0	NA
Use marketing videos in waiting room	26	6.1	21	6.4	12	6.0

†Respondents who had used each method ranked its effectiveness in improving profit compared to the other methods, with 1 being the best.

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

**Differences between one group and the remaining groups are statistically significant at or below the .01 probability level.

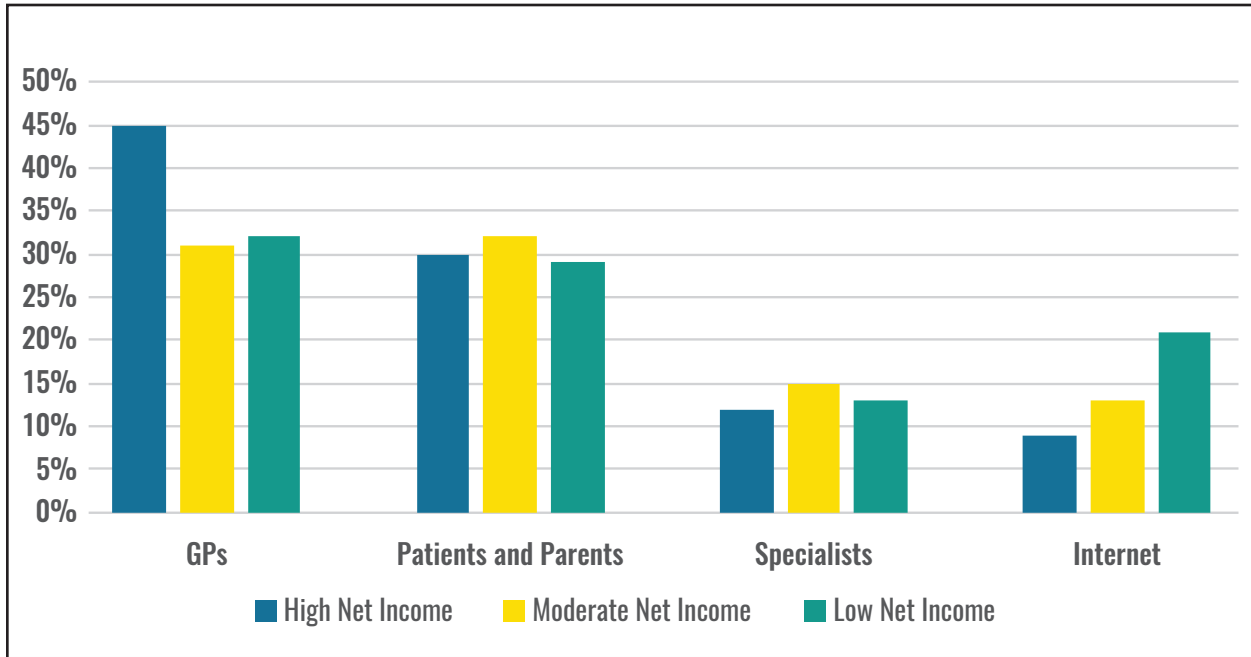


Fig. 5 Top source of referrals by net income level.

TABLE 19D
RANKED EFFECTIVENESS OF PRACTICE-BUILDING
CATEGORIES BY NET INCOME LEVEL

	High	Moderate	Low
	Rank (mean)†	Rank (mean)†	Rank (mean)†
Internal referrals	3.2	3.2	3.1
New-patient incentives	3.6	2.8	2.5
Other external marketing	3.1	3.9	3.6
External referrals	3.3	3.8	3.6
Management changes	3.8	3.6	3.6
Paid advertising	4.7	5.1	4.6
Expanded services	6.4	5.0**	6.0

†Respondents ranked the effectiveness of each category in improving profit compared with the others, with 1 being the best.

TABLE 20
RANKED EFFECTIVENESS OF PRACTICE-BUILDING CATEGORIES BY SELECTED VARIABLES

	Internal Referrals	New-Patient Incentives	Other External Marketing	External Referrals	Management Changes	Paid Advertising	Expanded Services
COMPOSITE	1	2	3	3	5	6	7
Years in Orthodontic Practice							
Less than 31 years	2	1	3	4	5	6	7*
31 years or more	1	3	3	2	5	7	6
Community Size							
Rural (less than 20,000)	1	3	4	1	5	6	7
Small city (20,000-50,000)	3	2	1	4	5	6	7
Large city (50,000-500,000)	1	4	3	1	5	6	7
Metropolitan (more than 500,000)	1	2	4	3	5	6	7
Geographic Region							
Northeast	5	1	3	2	4	6	7
South	1	1	4	3	5	6	7
Midwest	3	2	1	4	6	5	7
West Central	2	5	2	1	4	6	7
Pacific	1	2	3	5	4	7	6
Child Fee (permanent dentition)							
Low (less than \$5,600)	1	3	2	3	5	6	7
High (more than \$6,200)	2	1	2	4	5	6	7
Net Income							
Low (less than \$475,000)	2	1	3	3	3	6	7
Moderate (\$475,000-900,000)	2	1	5	4	3	7	6**
High (more than \$900,000)	2	4	1	3	5	6	7

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

**Differences between one group and the remaining groups are statistically significant at or below the .01 probability level.

Similarly, the low net income respondents were significantly less likely than the rest to use entertainment of patients and parents. Of the new-patient incentives, low net income practices were significantly less likely to use no-charge initial visit and digital case presentation and notably less likely to use no-charge diagnostic records and same-day starts. High net income practices were significant-

ly more likely than the others to waive the initial payment. The low net income respondents ranked discounts for up-front payment significantly higher than the other groups did, with the high and moderate net income respondents ranking such discounts much lower than in past surveys.

When respondents were asked to rank all the practice-building categories in terms of improved

TABLE 21
PRACTICE-BUILDING METHODS† BY NEW-PATIENT CONSULTATION LEVEL

	High	Moderate	Low
Change practice location	23	32	38
Expand practice hours	37	28	50
Open a satellite office	64	44	21*
Expand Services			
Surgical orthodontics	91	80	67
Cosmetic/laser treatment	45	33	17
Other External Marketing			
Instagram	77	84	58
TikTok	50	20	13*
External Referrals			
Reports to GPs	59	72	79
Letters of appreciation to GPs	59	56	79
Internal Referrals			
Seek referrals from staff members	77	56	42*
Entertainment of patients and parents	45	40	13**
New-Patient Incentives			
No-charge initial visit	100	96	83
No-charge diagnostic records	86	68	50*
Same-day start	86	76	63
Use marketing videos in waiting room	27	16	13

†Only methods with significant or noteworthy differences among groups are shown in this table.

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

**Differences between one group and the remaining groups are statistically significant at or below the .01 probability level.

profits, the high net income practices considered other external marketing methods (mainly including social media) to be the most effective, followed by internal referrals (Table 19D). Both the moderate and low net income groups ranked new-patient incentives as the most effective methods, even though high net income respondents were more likely to use these incentives. Management changes were ranked notably lower by the high net income practices than by the other two groups. Expanded services were rated significantly higher by the moderate net income practices than by the other respondents.

The effectiveness rankings of practice-building categories were also broken down by selected variables (Table 20). Respondents who had been in practice for less than 31 years ranked new-patient incentives highest and expanded services lowest, whereas those in practice for 31 or more years ranked internal referrals highest and paid advertising lowest. There were no significant differences in rankings according to community size, geographic region, or child fee. The moderate

net income group differed significantly from the other two income groups in its rankings, as indicated by Table 19D.

Respondents were divided into three groups based on their numbers of new-patient consultations (high = more than 600, moderate = 310-600, low = less than 310) to assess the effects of practice-building methods in terms of attracting patients (Table 21). Practices with the greatest number of consultations were significantly more likely than others to use satellite offices, TikTok, referrals from staff members, and no-charge diagnostic records, and were notably more likely to use surgical orthodontics, cosmetic/laser treatment, no-charge initial visit, same-day starts, and marketing videos in the waiting room. Those with the lowest level of consultations were significantly less likely than others to use entertainment of patients and parents, but were notably more likely to change practice location, expand practice hours, and use reports and letters of appreciation to GPs.

(TO BE CONTINUED)