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Compensation, Productivity, and Other Demographics of Academic Divisions of Endocrinology, Diabetes, and Metabolism

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The landscape for academic endocrinology divisions has continued to evolve rapidly; thus, finding reliable data that can be used as benchmarks has become more difficult. Resources are available for salary and relative value units, with the Association of American Medical Colleges, Medical Group Management Association, and Faculty Practice Solutions Center the most commonly used databases. However, details regarding how these data are collected and what they include are unclear. For example, does the income include bonus and/or incentive payments? How are work relative value units defined (individual rendering vs supervising advanced practitioners or fellows or residents)? How is a clinical full-time equivalent defined? In addition, other important data that would be relevant to running an academic division of endocrinology are not available from these, or any other resources, including support staff numbers and compensation or fellowship funding and training information. Therefore, an unmet need exists for reliable data that divisions can use to help shape their visions and goals. To address this demand, the Association of Endocrine Chiefs and Directors, in collaboration with the Endocrine Society, developed a detailed survey for members to address the financial, productivity, composition, and educational issues that they regularly face. Twenty academic institutions throughout the United States completed in the survey in 2018. In the present report, we have provided the results of the survey and some initial interpretations of the findings. Our hope is that the information presented will prove useful as academic endocrinology divisions continue to evolve.

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Freeform/Key Words: endocrinology, academic, compensation, productivity

The present report includes tables that summarize the results of a collaborative effort between the Association for Endocrine Chiefs and Directors (AECD) and the Endocrine Society to survey compensation, productivity, provider composition, and fellowship training information in academic divisions of endocrinology, diabetes, and metabolism. The survey is conducted every 3 to 4 years to provide academic leaders in endocrinology with information that can be used to help direct the development of their endocrinology programs. The current survey reflects information reported by 20 academic institutions throughout the United States, including 7 private and 13 state institutions. The data were collected in 2018 and

Abbreviations: AAMC, Association of American Medical Colleges; AECD, Association for Endocrine Chiefs and Directors; APP, advanced practice provider; cFTE, clinical full-time equivalent; FTE, full-time equivalent; GME, graduate medical education; MGMA, Medical Group Management Association; RVU, relative value unit; VA, Department of Veterans Affairs.

include information from 2017. To provide more substantial numbers, the data from all institutions were evaluated together. However, when the private and state institutions were considered separately, for the most part, the data from both groups were still similar. Any substantial differences have been discussed when appropriate. The questions within the survey focused on overall divisional demographics, income, and productivity, and more specific data on individual compensation and productivity. Information regarding support staff, advanced practice providers (APPs), dietitians, and fellows was also queried in the survey. All completed questionnaires were returned to a compensation consultant for analysis and tabulation. The reported de-identified survey data (de-identified to preclude readers from recognizing institutions by specific characteristics that might be revealing) was reviewed jointly by the authors and the compensation consultant for accuracy and completeness. The submitting institutions were queried about outliers that were considered unlikely or unexplainable because of their extreme variance from the mean. A small number (<2% of data points) that could not be confirmed by the submitting institutions were removed. In addition, because the Department of Veterans Affairs (VA) could not readily provide accurate income or productivity information, the VA data for those parameters were not included in the analysis. However, the VA information was still included for the salary and position profiles (e.g., distribution of effort, rank). Specific additional details and caveats regarding the information found in the tables are discussed throughout the report.

1. Summary of Institutional Demographics

A. General Institutional Demographics

The average size of the faculty of the 20 participating institutions was 14 full-time faculty positions [full-time equivalent (FTE) positions] per institution. However, the range was great, from 5 to 32, with a SD of 6, suggesting that both large and relatively small divisions had responded to the survey (Table 1). In contrast to the full-time positions, the average number of clinical FTEs (cFTEs) per institution was 7.63. Because 82% of all reported faculty

Table 1. Summary of Institutional Demographics

Institutional Demographics	Responses, n	Actual Low	Average	Median	Actual High	SD
Total faculty members (FTEs) per division	20	5	14	13	32	6
Clinical FTEs per division	20	2.80	7.63	6.92	16.54	3.35
Total RVUs	20	2995	37,631	31,648	84,928	20,759
RVUs per cFTE	205	547	4300	4231	11,006	1943
Taxes (dean, department, hospital, faculty practice, etc.)	15	\$ 106,417	\$ 686,094	\$ 502,126	\$ 2,505,682	\$ 583,578
Size of hospital (number of beds)	19	401	758	730	1470	286
Average no. of patients followed up in inpatient service	16	7	25	21	75	16
No. of inpatient CDEs (not including NPs or PAs)	20	0	2	3	7	2
No. of inpatient NPs or PAs	14	1	3	3	6	1
No. of inpatient CDEs per 500 hospital beds	19	0	2	1	4	1
No. of inpatient NPs or PAs per 500 hospital beds	19	0	1	1	4	1
No. of inpatient nutritionists	6	1	3	3	5	1
No. of inpatient RNs	8	1	2	1	6	2
Average salary increase percentage for previous 3 y	17	1.0%	2.8%	2.5%	5.0%	1.0%

Data presented as number of responses and low, mean, median, high, and SD for each category. Abbreviations: CDEs, certified diabetes educator; RN, registered nurse.

Table 2. Summary of Tenure Track and Tenured Positions

Survey Clinical Position Title	Total Position Incumbents, n	Faculty Status Stratified by Position, %	
		Tenure Track	Tenured
Chief of division of endocrinology	20	85	75
Clinical chief	11	55	36
Director of diabetes center or other center director	9	44	44
Fellowship program director	24	33	29
Clinician	165	19	16
Clinician researcher	63	65	35
Researcher	66	35	21

All chiefs, directors, clinicians, and clinician researchers were reported to have MD or MBBS degrees, and all but one of the researchers were reported to have PhD degrees but not MD degrees.

were MDs (Table 2), this suggests that most MDs were part-time clinicians and involved in other academic or administrative endeavors to fill the rest of their time, and that non-face-to-face clinical time (estimated to ~20% of direct patient care time) was considered as administrative time. Of those faculty listed as pure “clinicians,” the average reported percentage of face-to-face clinical effort was 72%, with clinician researchers averaging 22% clinical effort (Table 3).

Regarding inpatient support personnel, the average number of inpatient diabetes educators per hospital was 2, with an average of 3 inpatient APPs and 3 inpatient nutritionists (Table 1). These personnel covered inpatient services that average 25 patients on any given day. The size of the inpatient consultation services varied dramatically, from 7 to 75. A part of this broad range could have resulted from hospital size. However, much of the differences might be related to how divisions follow and treat inpatients with diabetes. Some programs likely have robust endocrinology-run inpatient diabetes services that are serviced by APPs, and other programs might rely more on their fellows and, therefore, try to keep the size of the inpatient service smaller.

B. Sources of Institutional Income

Given the large range in clinical faculty and FTEs, it was not surprising that large variations were found in clinical revenue and relative value units (RVUs). The average clinical revenue (including all revenue from all providers), which, on average, accounted for 40% of total divisional income, was \$2,772,831, with a SD of \$1,263,556 (Table 4). Productivity averaged 37,631 RVUs, with a broad SD of 20,759 (Table 1). Dividing the average income for the 20 institutions by the average RVUs for the 20 institutions resulted in \$33.58/RVU. After clinical income, direct federal grants represented the next largest proportion of institutional income for the survey respondents—on average, ~26% of total income (Table 4). However, the range of federal grant support was broad—from 7.7% to 54.3%, which likely correlated with differences in the institutional research programs. “Institutional support” was defined as support from the hospital, faculty practice, department of medicine, or medical school. The mean percentage of institutional support was 10.3%, with a SD of 8.2%; however, the range was relatively wide (from 0.6% to 32%). How each institution doles out its support likely varies, with some perhaps using support to fill budgets at the end of year and others using support to pay for administrative support, provider salaries, or a line budget item at the start of the year. Philanthropic support was a minor contributor to overall income of essentially all reporting divisions, representing only 4.3% of total income. State support varied considerably, but the maximum is only 13.5% of the total income; thus, even public institutions will derive a relatively small percentage of their income from their respective states.

Regarding expenses, the range of institutional tax dollars reported by 14 endocrine divisions was relatively broad (Table 1). Studying the individual institutional data and dividing

Table 3. Summary of RVUs and Percentage of Effort Stratified by Position

Survey Position Title	Total Position Incumbents	Total RVUs, n				
		Low	Mean	Median	High	
Chief of Division of Endocrinology	20	77	1310	1337	2978	
Clinical Chief	11	77	3132	3356	5977	
Director of Diabetes Center or other Center Director	9	239	1310	1141	2430	
Fellowship Program Director	24	5	2527	2659	5228	
Clinician	165	162	2797	2660	6816	
Clinician/Researcher	63	40	1169	1025	3218	
			Average Effort, %			
				Research	Admin.	
Chief of division of endocrinology	20			37	28	
Clinical chief	11			8	30	
Director of diabetes center or other center director	9			39	25	
Fellowship program director	24			11	19	
Clinician	165			10	11	
Clinician researcher	63			61	13	
				Teaching	Total	
				7	100	
				5	100	
				5	100	
				21	100	
				7	100	
				4	100	

Total RVUs were not adjusted for clinical FTEs.

^aAverage clinical effort was the same as average clinical FTE.

Table 4. Summary of Institutional Income

Variable	Responses, n	Actual			Actual High	SD
		Low	Average	Median		
Sources of institutional income—dollar amounts						
Clinical income (collections, not charges)	20	\$158,984	\$2,772,831	\$2,774,000	\$5,278,045	\$1,263,556
Federal grants, direct	17	454,844	2,791,344	1,660,061	9,199,216	2,487,405
Federal grants, indirect	17	129,961	1,121,191	734,264	3,292,872	943,767
Other grants, direct	17	88,947	829,547	658,651	3,330,339	761,457
Other grants, indirect	17	12,545	171,782	104,245	496,836	160,669
Institutional support (hospital, medical school, department, etc.)	16	27,300	1,005,164	900,935	2,966,145	830,105
Philanthropic support	14	22,203	401,517	221,400	2,487,131	597,520
VA support	8	259,680	448,191	466,892	600,387	120,288
State support	8	79,536	373,590	239,678	1,310,743	370,477
Other support	4	75	278,544	312,066	489,971	202,167
Total, all sources	20	589,657	8,720,954	7,851,472	22,128,175	4,933,912
Sources of institutional income—percentage of total, %						
Clinical income (collections, not charges)	20	7.6	40.4	36.4	93.1	22.9
Federal grants, direct	17	7.7	26.0	22.4	54.3	13.4
Federal grants, indirect	17	3.0	11.0	9.5	21.2	5.1
Other grants, direct	18	1.5	8.5	7.9	29.8	6.3
Other grants, indirect	18	0.3	1.7	1.0	5.3	1.5
Institutional support (hospital, medical school, department, etc.)	16	0.6	10.3	9.3	32.3	8.2
Philanthropic support	14	1.0	4.3	3.1	15.5	4.0
VA support	8	2.0	11.9	5.3	55.8	16.9
State support	8	1.9	5.8	4.1	13.5	4.3
Other support	4	0.0	2.9	3.2	5.3	2.2

Data presented as number of responses, low, mean, median, high, and SD for each category; for the sources of institutional income, the percentages were not computed from the calculated numbers in the top section but were first evaluated for each individual institution, after which the statistics were calculated.

the taxes by clinical income for each individual division, we found that taxes constituted an average of 24.9% of total clinical income (median, 18.6%; SD, 14.8%; range, 3.9% to 47.6%). Exactly how these tax dollars are used (*e.g.*, hospital, faculty practice, department, medical school) was not addressed but likely vary depending on whether the practices are faculty or hospital based and whether they are private or state institutions.

C. Productivity

In calculating clinical productivity as work RVUs per clinical FTE (examining only those with >20% clinical effort, a cutoff commonly used to identify physicians performing more than 1 day per week of clinical work), the average was 4300 RVU per clinical FTE (Table 1). This number was similar to the 3-year rolling values reported by the Faculty Practice Solutions Center maintained by the Association of American Medical Colleges (AAMC) and Vizient (©2017, AAMC and Vizient). However, they varied somewhat from the 2017 Medical Group Management Association (MGMA) averages (MGMA DataDrive Provider Compensation 2018, Englewood, Colorado). This variability in productivity standards underscores the difficulty in using RVUs as the only measure of productivity or worth. For example, despite the best efforts, it has sometimes been unclear how organizations report true rendering vs supervising RVUs (supervising might or might not include RVUs from APPs or residents/fellows), or how they compensate for clinical vs total FTEs when reporting their data. These variables were very carefully controlled in the AECD survey. RVUs include both rendering and supervising RVUs and, as stated, true clinical FTEs were specifically asked for

and used in the denominators of our calculations. Another of the many concerns with using RVUs as a measure of worth or productivity is that practitioners who travel to remote areas or provide services in areas in which “no-show” rates are higher might see fewer RVUs but will be contributing just as highly as a provider in a high-throughput clinic. In contrast, a physician who spends a day in the intensive care unit might bill significantly more RVUs (again, depending on how a work RVU has been defined) than a physician in clinic for a day. In short, caution should be used when interpreting productivity data, and RVUs should only be one part of the equation in this process.

2. Summary of Clinical Positions by Faculty Rank and Tenure Track

For the most part, full professor has been the most prevalent faculty rank for chief and director-level positions (Table 5). An exception has been the clinical chief or director, for which the largest percentage has been associate professors. A few clinical and fellowship directors were listed as assistant professors—it is possible that some of these were co-directors, working alongside more senior faculty. For clinicians or clinician researchers, the faculty rank varied more widely. Very few clinicians or clinician researchers held the position of instructor or research faculty (<6%). In contrast, 40% of those holding research (PhD) positions were listed as instructors or research faculty (66 of 358 total faculty reported as researchers). These data support the concept that most academic divisions have a relatively limited number of PhD researchers, in large part because so many of these positions are “soft money positions” that are difficult to maintain.

In support of that statement, only 35% of PhD researchers (23 of 66) were tenure track faculty (Table 2). Also, only 19% of primary clinicians were tenure track (31 of 165), indicating that, as would be expected, most clinicians are on a track that will lead to promotion but not to tenure. More than one half of the clinician researchers were on the tenure track, and most of the division chiefs were tenured.

3. Summary of Average Annualized Clinical Base Salaries by Faculty Rank

One very important measure to ensure appropriate compensation of faculty is salary data. For our survey, the participants were asked to include the base salary, as well as incentive and bonus payments. In addition, the participants were asked to report the total years of experience for each faculty member. Although no specific definitions were given to those completing the survey, in general, incentives included additional payments that resulted from reaching milestones (*e.g.*, clinical or research), and bonuses were additional salary given for leadership or committee involvement. Total income represented the base salary plus incentives plus bonus (*i.e.*, the total amount of income realized by the faculty member).

Tables 6 to 12 contain a considerable amount of data. We focused on a few salient points. First, no substantial differences were found in the average base salaries reported for the division chiefs when stratified by faculty rank—full professor vs associate professor (Table 6). This lack of a difference might, in part, be a statistical variant owing to the small number of associate professors who were division chiefs (4 of 19). However, for those who became division chiefs, it appears that the incentive and/or bonus income were greater for full professors than for associate professors, resulting in a noticeable difference in the mean total income between the two ranks (\$311,165 vs \$284,468; Table 6). In addition, a noticeable decrease was present in the average base salaries and total income for all other survey positions at each faculty rank below full professor (Tables 7 to 12).

Notably, clinician researchers, who, on average, had only 22% clinical effort (average 1169 RVUs; Table 3) were paid equally to those listed as “clinicians” (Tables 10 and 11) and who reported 72% clinical effort (average 2797 RVUs; Table 3). Even when considering the incentive and bonus funds, the income did not vary greatly between these two groups, with the income of all ranks of clinical researcher slightly higher at \$218,116 compared with all ranks of clinician at \$200,362. Thus, in academia, seeing more patients still does not appear to

Table 5. Summary of Clinical Positions Stratified by Faculty Rank

Survey Position Title	Total Position Incumbents, n	Proportion of Total Faculty Stratified by Rank and Position, %						
		Full Professor	Associate Professor	Assistant Professor	Instructor	Research Full Professor	Research Associate Professor	Research Assistant Professor
Chief of division of endocrinology	20	75	25	0	0	0	0	0
Clinical chief	11	36	45	18	0	0	0	0
Director of diabetes center or other center director	9	78	11	11	0	0	0	0
Fellowship program director	24	38	33	29	0	0	0	0
Clinician	165	19	24	54	4	0	0	0
Clinician researcher	63	43	17	35	3	2	0	0
Researcher	66	26	12	23	20	2	3	15

The category of clinicians excluded those placed in other categories such as clinical chief, fellowship program director, center director, or chief.

Table 6. Annualized Compensation by Faculty Rank—Division Chief

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	18	24.6	24.5	19	\$275,209	\$266,163	11	\$28,163	\$20,000	9	\$29,261	\$20,000	19	\$305,544	\$307,500
Full professor	14	26.3	26.0	15	\$275,851	\$264,000	9	\$29,561	\$20,000	8	\$32,957	\$20,000	15	\$311,165	\$320,000
Associate professor	4	18.8	19.0	4	\$272,800	\$283,100	2	\$21,870	\$21,870	1	\$2,933	\$2,933	4	\$284,468	\$285,000

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty.

Table 7. Annualized Compensation by Faculty Rank—Clinical Chief

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	11	19.5	13.0	11	\$212,072	\$206,989	6	\$20,454	\$11,518	3	\$28,387	\$12,561	11	\$230,970	\$224,892
Full professor	4	34.0	33.0	4	\$227,750	\$264,035	1	\$5,000	\$5,000	1	\$12,561	\$12,561	4	\$232,140	\$266,879
Associate professor	5	13.8	11.0	5	\$206,758	\$204,000	3	\$14,276	\$12,132	1	\$5,100	\$5,100	5	\$216,343	\$217,892
Assistant professor	2	4.5	4.5	2	\$194,000	\$194,000	2	\$37,447	\$37,447	1	\$67,500	\$67,500	2	\$265,197	\$265,197

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty.

Table 8. Annualized Compensation by Faculty Rank—Diabetes or Other Center Director

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	9	24.3	26.0	8	\$257,412	\$266,455	3	\$14,969	\$11,462	1	\$330	\$330	8	\$263,066	\$279,227
Full professor	7	27.4	27.0	6	\$281,213	\$281,872	2	\$18,504	\$18,504	0	0	0	6	\$287,381	\$283,646
Associate professor	1	20.0	20.0	1	\$220,000	\$220,000	0	0	0	0	0	0	1	\$220,000	\$220,000
Assistant professor	1	7.0	7.0	1	\$152,016	\$152,016	1	\$7,900	\$7,900	1	\$330	\$330	1	\$160,246	\$160,246

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty.

Table 9. Annualized Compensation by Faculty Rank—Fellowship Director

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	20	16.9	15.0	22	\$209,505	\$193,756	13	\$20,546	\$15,888	6	\$5,000	\$5,708	22	\$223,009	\$204,000
Full professor	8	22.1	22.5	8	\$239,030	\$234,234	3	\$12,251	\$7,260	3	\$5,309	\$5,715	8	\$245,615	\$242,864
Associate professor	6	19.8	18.5	8	\$209,464	\$189,534	6	\$29,052	\$28,500	2	\$6,392	\$6,392	8	\$232,851	\$204,000
Assistant professor	6	6.8	4.0	6	\$170,193	\$166,580	4	\$14,008	\$12,999	1	\$1,286	\$1,286	6	\$179,746	\$185,786

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty—4 of 20 institutions reported co-fellowship directors (with salary information), and two institutions did not provide salary data for their fellowship directors.

Table 10. Annualized Compensation by Faculty Rank—Clinician

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	153	13.0	9.0	163	\$187,723	\$183,000	86	\$21,279	\$15,829	35	\$6,578	\$5,000	163	\$200,362	\$194,072
Full professor	26	31.3	29.0	31	\$211,660	\$204,066	18	\$20,331	\$17,700	7	\$10,872	\$10,000	31	\$225,920	\$208,800
Associate professor	37	17.2	14.0	39	\$198,301	\$191,639	19	\$28,653	\$16,760	10	\$10,001	\$6,496	39	\$214,825	\$203,500
Assistant professor	85	6.2	4.0	87	\$179,108	\$174,000	46	\$18,709	\$15,779	18	\$3,006	\$1,297	87	\$189,622	\$180,000
Instructor	5	2.0	1.0	6	\$120,192	\$121,500	3	\$19,685	\$11,200	0	—	—	6	\$130,034	\$128,100

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty—center directors, fellowship directors, clinical chiefs, and division chiefs were not included.

Table 11. Annualized Compensation by Faculty Rank—Clinician Researcher

Faculty Rank	Years of Experience			Base Salary			Incentive Income			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	57	19.1	16.0	62	\$207,173	\$199,500	23	\$22,573	\$16,900	14	\$11,378	\$6,375	62	\$218,116	\$211,189
Full professor	26	29.3	29.0	26	\$237,548	\$230,589	12	\$19,210	\$13,085	10	\$12,908	\$9,285	26	\$251,378	\$244,355
Associate professor	10	14.5	13.5	11	\$198,889	\$199,000	4	\$28,760	\$30,878	2	\$2,554	\$2,554	11	\$209,811	\$210,000
Assistant professor	20	7.9	8.0	22	\$177,932	\$167,655	6	\$27,070	\$26,953	2	\$12,550	\$12,550	22	\$186,456	\$171,795
Instructor	0	0	0	2	\$125,000	\$125,000	1	\$11,200	\$11,200	0	0	0	2	\$130,600	\$130,600
Research full professor	1	24.0	24.0	1	\$316,200	\$316,200	0	0	0	0	0	0	1	\$316,200	\$316,200

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty—center directors, fellowship directors, clinical chiefs, and division chiefs were not included.

Table 12. Annualized Compensation by Faculty Rank—Researcher

Faculty Rank	Years of Experience			Base Salary			Bonus Income			Total Income		
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median
All ranks	60	16.2	12.0	66	\$107,254	\$95,206	12	\$15,870	\$12,500	66	\$110,139	\$95,206
Full professor	14	27.9	30.0	17	\$157,291	\$170,000	7	\$12,935	\$9,840	17	\$162,617	\$177,500
Associate professor	7	17.1	17.0	8	\$130,882	\$129,401	4	\$21,723	\$20,086	8	\$141,743	\$140,913
Assistant professor	14	9.3	7.0	15	\$88,389	\$90,000	0	0	0	15	\$88,389	\$90,000
Instructor	12	6.8	4.1	13	\$65,995	\$59,000	0	0	0	13	\$65,995	\$59,000
Research full professor	1	22.0	22.0	1	\$182,200	\$182,200	0	0	0	1	\$182,200	\$182,200
Research associate professor	2	17.5	17.5	2	\$112,984	\$112,984	1	\$13,000	\$13,000	2	\$119,484	\$119,484
Research assistant professor	10	19.2	11.0	10	\$76,581	\$76,374	0	0	0	10	\$76,581	\$76,374

Reported base salary, incentive income, and bonus income; total income included base salary plus incentive and bonus payments for each individual faculty—center directors, fellowship directors, clinical chiefs, and division chiefs were not included.

reflect a greater personal income. This might result in part from the limited ability of nonprocedural subspecialties such as endocrinology to generate substantial RVUs, as well as the absence of substantial incentive plans for clinical faculty.

For division chiefs, the base salary represented ~90% of the total income. In contrast, the base salary represented ~94% of the total income for clinicians. These results suggest that, currently, incentive or bonuses are not being aggressively used in academia compared with private practice. As expected, income greater than the base salary was minimal for researchers.

When comparing the AECD salary reports with the data from national salary databases that academic medical centers use (*e.g.*, MGMA and AAMC), one sees variability among the three reports. Many reasons could exist for this difference. For example, although the AECD numbers include bonus and incentive compensation, which vary considerably, it is unclear whether the numbers reported to the AAMC and MGMA include only base salaries or total compensation. In addition, it is possible that institutions reported clinical, center, and fellowship directors, as well as, possibly, division chiefs, in the categories of full or associate professors, which could have led to slightly higher average salaries for these two categories. In contrast, the AECD treated these leadership positions, which have higher compensation, as separate salary lines (Tables 7–9) compared with clinicians (Table 10) and clinician researchers (Table 11).

4. Summary of RVUs and Percentage of Effort for Clinical Positions

The detailed RVU and effort data for the various positions surveyed are presented in Table 3. As stated, these data suggest that most academic clinicians do not have “full time” clinical positions (cFTE), reflected by the actual total RVUs they generated. In focusing on clinicians who perform >20% clinical effort (>1 day per week, on average), the average RVU per cFTE was 4300 (Table 1), which, as discussed, was on par, but not quite the same, as that in the national databases. The RVU “lows” in some of the categories were <200 RVUs annually. However, all these faculty were listed as performing ≤5% clinical effort, confirming that they had minimal clinical duties.

5. Summary of Fellow (MD) Positions

Table 13, which is new in the present survey, provides data on fellowships. One of the 20 reporting institutions did not report any data for their fellowship. These data indicate that, as expected, average salaries increase with experience. Some range in the salaries was found, which were skewed by a few institutions paying higher salaries than the rest owing to the high cost of living in their cities. Most clinical fellowship positions are funded through the hospital, institution, or graduate medical education (79% of first-year fellows and 68% of second-year fellows). Second-year fellows were reported to have less clinical effort than were first-year fellows (mean, 54% vs 86%, respectively), consistent with most programs being clinically heaviest during the first year. For third-year positions, which had significantly lower clinical effort (mean, 16%), most funding came from training grants or divisions (90%). Among the 19 institutions that provided information on their fellows, only 10 fellows were reported to be in their third year or later compared with ~47 fellows reported in each of years 1 and 2 (average, ~2.5 fellows per year per institution). Only 5 of the 19 institutions that provided data reported having fellows in years 3 plus. These statistics suggest that most programs have not been offering more than the standard 2-year Accreditation Council for Graduate Medical Education clinical fellowship. In an era of shortages of clinical endocrinologists and given the huge burden of debt that so many physicians face, these statistics are not surprising. However, they are concerning, because a shortage of fellows taking the time to truly perform scholarship will severely deplete the next generation of academic clinical endocrinologists and ultimately cause substantial harm to the profession.

Table 13. Summary of Fellow (MD) Positions

Fellow (MD)	Responses, n	Summary Statistics			
		Low	Average	Median	High
No. of fellows per institution	105	2	6	6	11
Salaries and funding sources stratified by years in fellowship					
First-year fellows (salaries)	48	\$56,075	\$62,553	\$63,047	\$70,000
Funding source					
Division (2%)	1				
Institutional/hospital/GME (79%)	38				
Training grant (4%)	2				
Unknown (15%)	7				
Second-year fellows (salaries)	47	\$57,882	\$65,088	\$65,070	\$80,000
Funding source					
Division (6%)	3				
Institutional/hospital/GME (68%)	32				
Training grant (11%)	5				
Unknown (15%)	7				
Third-year and plus fellows (salaries)	10	\$67,333	\$71,629	\$69,955	\$85,000
Funding source					
Division (40%)	4				
Institutional/hospital/GME (10%)	1				
Training grant (50%)	5				
Unknown (0%)	0				
Clinical Effort stratified by years in fellowship, %					
First year	48	0.0	86.0	92.0	100.0
Second year	47	0.0	54.0	50.0	100.0
Third year plus	10	0.0	16.0	17.0	25.0

Salaries and salary source annually for endocrinology fellows; percentages in parentheses indicate the prevalence of funding sources stratified by the total number of fellows in each group; institutional, hospital, and GME were all included in one group.

6. Nonphysician Position Annualized Compensation

The average and median base salaries, bonus income, and total income reported for non-physician positions, including APPs, dietitians, registered nurses, licensed practical nurses, administrators, and secretaries/administrative assistants are summarized in [Table 14](#). Bonus income was rare for these positions. APPs were primarily nurse practitioners (45 of 69) or physician assistants (24 of 69). Some APPs were also certified diabetes educators (13 of 69). The range of salary for APPs was large, from \$66,466 to \$136,000. This likely resulted in part from differences in the years of experience and location (high cost of living vs lower cost of living). Most dietitians (20 of 33) were also certified diabetes educators, which might have relevance with regard to how practices bill for both diabetes education and nutrition. A smaller number of registered nurses (16 of 36) were also certified diabetes educators.

7. Conclusions

The information we have presented offers academic divisions a great amount of data that can be used to help them with benchmarking, management decisions, and planning for the future. These data contain significantly more nuance than the national databases that we have relied on for compensation and productivity, because these data better reflect the true complexity of academic endocrinology divisions, in which teaching, scholarship, research, and clinical practice are so tightly linked that is nearly impossible to use a generalized table as a true guide. The AECD survey had some shortcomings. First, only 20 institutions were involved—obviously, having more programs participate would have strengthened the generalizability of

Table 14. Annualized Compensation for Nonphysician Positions

Survey Position Title	Total Years of Experience			Base Salary			Bonus Income			Total Income								
	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	No. Reporting	Mean	Median	CDEs, n	NPs, n	PAs, n
NP or PA	65	11.3	7.0	69	\$103,584	\$104,000	9	\$3992	\$4432	69	\$104,104	\$104,250	13	45	24			
Dietician (not NP or PA)	33	13.0	9.0	33	\$66,805	\$65,457	0	0	0	33	\$66,805	\$65,457	20	NA	NA			
RN	36	14.8	13.0	36	\$82,004	\$79,848	0	0	0	36	\$82,004	\$79,848	16	NA	NA			
Licensed practical nurse or other technical staff	41	9.6	10.0	41	\$45,404	\$42,000	0	0	0	41	\$45,404	\$42,000	NA	NA	NA			
Administrator	36	13.4	10.0	36	\$81,227	\$76,616	1	\$10,000	\$10,000	36	\$81,505	\$76,616	NA	NA	NA			
Secretary or administrative assistant	58	13.4	11.0	63	\$46,865	\$48,313	0	0	0	63	\$46,865	\$48,313	NA	NA	NA			

Total income equaled base salary plus bonus income (including any bonus or incentive).

Abbreviations: NA, not applicable; RN, registered nurse.

these results. Furthermore, with greater numbers, it would be possible to differentiate the specific regional information and state vs private data. Another shortcoming with the AECD survey, which almost certainly exists for all national surveys and databases, is that the data will only be as strong as the individuals who enter them. A small number of data points (<2%) were either incomplete or so far from the normal range of distribution and not able to be confirmed that they had to be removed from the calculations. In addition, the productivity data from the Veterans Affairs hospitals were not able to be used in our report. Also, small numbers of public hospitals reported an inability to derive exact RVU data. Finally, an analysis of gender and ethnic breakdown of providers and fellows would have been helpful to fully appreciate the demographics of academic endocrinology divisions. However, the present data offer a unique perspective for academic endocrinologists that has not been previously provided. Our hope is that, with the next iteration of this survey, we can increase the participation and provide even more complete and detailed data.

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Additional Information

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