



**2017 Resident Salaries Offered through the VIRMP
Association of American Veterinary Medical Colleges
June 2017
Updated February 12, 2018**

Introduction

According to the annual Senior Surveys conducted by the American Veterinary Medical Association (AVMA) 29 percent of 2015 graduates pursued additional training by internship (Dicks, Bain, & Knippenberg, 2016). Recent graduates report receiving additional hands on training and mentoring, as well as pursuing specialized experience as reasons for pursuing internships. A smaller number of these professionals go on to pursue residency training with the goal of earning additional degrees and/or board certification.

Historically, post-DVM training programs have paid salaries far lower than the national average for recent graduates. In 2017, AVMA reported new graduate veterinarians earned an average annual salary of \$73,380 for 2016 graduates (Dicks, Knippenberg, Bain & Greenhill 2017). The Association of American Veterinary Medical Colleges (AAVMC) reported an average salary of \$33,262 for first year residents in training programs in the United States (Greenhill, 2016).

In an effort to broaden the profession's understanding of trainee salaries, the AAVMC has partnered with the American Association of Veterinary Clinicians (AAVC) to study the full complement of residencies and internships offered through a matching program. This publication focuses exclusively on first year salaries for residency programs in the United States.

Methodology

The American Association of Veterinary Clinicians (AAVC) sponsors the annual Veterinary Internship and Residency Matching Program (VIRMP). The purpose of the program is to "expedite the selection of interns and residencies for participating veterinary colleges and private veterinary practices." (AAVC, 2017). The VIRMP allows academic institutions and private practices to submit training positions to be filled and applicants to submit their applications and rankings to the VIRMP. Program coordinators review the applications and rank the applicants. Proprietary software used by the VIRMP determines the best matches based on the rankings and notifies the applicants and the program coordinators.

This process begins annually in September of each year when the training program coordinators from individual residency and internship training programs enter their program information into the matching program's website (www.virmp.org). Program coordinators enter detailed information about the positions being offered; the salary being offered is entered as a free-text field.

In the spring of 2017, this data was provided to AAVMC for analysis. Prior to analysis, all free text entered salary information was standardized using US currency formatting. Residency position offerings were sorted by clinical

and non-clinical types; clinical positions were again sorted by practice area. The position entry data included the state location and the name of the institution or practice offering each position. These data were organized using regional variables and a descriptive variable indicating whether the practice was located at an academic institution or a private practice.

Descriptive and ANOVA analyses were conducted using SPSS 22.

Definitions

There are two kinds of residents, non-clinical and clinical residents. Non-Clinical residents are defined as individuals involved in basic science training programs. Clinical residents are defined as individuals involved in a three year advanced training program in a specialty area in veterinary medicine. This training may or may not lead to a specialty board certification and may or may not be embedded within a graduate program.

Clinical interns are defined as individuals participating in a one year rotating or specialty clinical training program in veterinary medicine. The internship provides practical experience in applying knowledge gained during formal professional education and offers the opportunity for recent graduates to obtain additional training.

Summary of Findings for Resident Positions Filled through the Match Program

The number of first year residency positions offered in the United States through the VIRMP for the 2017-2018 training year was 367; 306 (83.4%) of these positions were offered by academic institutions. For all listed resident positions, the average starting salary was \$34,527, which was a statistically significant increase of 2.8% over 2016 ($p=.040$). The increase also represented a greater increase than the Consumer Price Index (CPI) for the period of May 2016 to May 2017 (Bureau of Labor and Statistics, 2017). There was also a statistical difference between positions offered in academic or private settings, with privately offered residency applicants being offered \$36,802 and academically offered residency applicants being offered \$34,074 or 8.0% less ($p=.040$).

Resident positions listed through the matching program were most often located in the South (28.9%) and Midwest (27.8%). Although only 16.9% of residents are expected to train in the Western region this year, that region continues to offer the highest starting salary of all listed resident positions at \$38,882, which is \$4,355 more than the national average. This statistically significant difference ($p = .000$) is likely attributable to differences in the cost of living, including housing, across regions. For example, as of June 21, 2017, residents training in Seattle, Washington will need \$5,655 more in salary to maintain a comparable standard of living as residents training in Columbus, Ohio (Numbeo.com, 2017). A breakdown of average salary by region can be found in Table 1.

Table 1:

Average Salary Offered for Resident Positions by Region

Region	Percentage of Positions Listed	Mean Salary	Median Salary
Midwest	27.8%	\$31,702	\$30,500
Northeast	26.4%	\$36,118	\$34,184
South	28.9%	\$33,243	\$31,350
West	16.9%	\$38,882	\$41,592
Total	100.0%	\$34,527	\$33,000

Residency match offerings were sorted into categories associated with specialty areas (Table 2).

Table 2:

Average Resident Salary Offered by Practice Type

Area of Practice	Number of Positions Listed	Percentage of Positions Listed	Mean Salary	Median Salary
Ambulatory	1	0.3%	\$35,700	\$35,700
Anesthesia	19	5.2%	\$32,480	\$33,000
Avian Medicine	1	0.3%	\$28,000	\$28,000
Cardiology	13	3.5%	\$32,096	\$32,500
Clinical Nutrition	3	0.8%	\$31,864	\$28,000
Dentistry	5	1.4%	\$33,958	\$32,500
Dermatology	8	2.2%	\$34,349	\$33,400
Diagnostic Imagine and Radiology	18	4.9%	\$30,811	\$30,799
Emergency Medicine - Small Animal	50	13.6%	\$35,383	\$33,750
Equine Medicine	9	2.5%	\$33,564	\$33,000
Equine Surgery	7	1.9%	\$35,926	\$33,000
Exotic/Wildlife/Zoo	4	1.1%	\$36,296	\$37,546
Food Animal Medicine & Surgery	2	.5%	\$29,662	\$29,662
Herd Medicine/Agricultural Practice/Herd Production	3	0.8%	\$38,728	\$41,592
Laboratory Medicine/Comparative Medicine	42	11.4%	\$45,881	\$45,028
Medicine - Large Animal	11	3.0%	\$31,944	\$33,000
Medicine - Small Animal	47	12.8%	\$32,433	\$31,000
Neurology/Neurosurgery	18	4.9%	\$31,703	\$30,475
Oncology	24	6.5%	\$33,013	\$32,500
Radiation Oncology/Therapy	6	1.6%	\$31,267	\$29,130
Shelter Medicine	1	.3%	\$48,000	\$48,000
Sports Medicine & Rehabilitation	4	1.1%	\$32,440	\$30,880
Surgery - Large Animal	12	3.3%	\$32,086	\$33,000
Surgery - Small Animal	42	11.4%	\$32,572	\$30,750
Therigenology	6	1.6%	\$31,683	\$30,974
Zoological Medicine	11	3.0%	\$32,834	\$33,000
Total	367	100.0%	\$34,527	\$33,000

Although salaries within the sample ranged from \$28,000 per year up to \$48,000 per year, average salary offers across practice areas largely clustered in the low \$30,000 range. Positions for clinical trainees in Emergency Medicine - Small Animal comprised the single largest group of positions listed (13.6%). Although most salary offers were fairly close to the mean, statistically significant differences were found across practice areas ($p=.000$). These differences may well be mitigated by the very small sample sizes within each practice category. The single residency position in Shelter Medicine offered the highest salary of \$48,000, which is more than \$13,473 than the national average.

Non-clinical Residency Training

It is important to differentiate between clinical and non-clinical trainees as the salary offers differ significantly.

Trainees pursuing non-clinical residencies in laboratory animal medicine and/or comparative medicine were offered significantly more than their clinical resident counterparts participating in the matching program ($p = .000$). Applicants to these non-clinical programs were offered positions with an average starting salary of \$45,881 while applicants to clinical residency programs were offered \$32,834 or 40% less in salary. It should be noted that the total number of positions listed for laboratory animal medicine comprised 11.4% of all positions listed in the VIRMP for the year reviewed.

Academic Residency Offerings

As noted earlier, US colleges of veterinary medicine offered 306 residency positions in the match for the 2017-2018 employment year. The mean salary positions offered by the colleges was \$34,074, with a salary range of \$26,000 to \$52,329. Much like the total complement of residency offerings, the largest percentage of positions could be found in the Midwest (31.4%) and South regions (31.0%). Salaries in the Northeast and West were significantly higher than in other regions ($P=.000$). Table 3 provides salary averages for academic residency positions by region.

Table 3:
Average Salary Offered for Academic Residency Positions by Region

Region	Percentage of Positions Listed	Mean Salary	Median Salary
Midwest	31.4%	\$31,689	\$30,500
Northeast	20.9%	\$36,474	\$34,942
South	31.0%	\$33,109	\$31,350
West	16.7%	\$37,350	\$41,592
Total	100.0%	\$34,074	\$33,000

Table 4 shows the mean residency salary offerings by practice area. Positions in laboratory animal/comparative medicine comprised the largest single group of offerings by positions, and these positions offered a higher salary than others offered across practice area. Nearly 1 in 3 laboratory animal/comparative medicine residencies were offered by colleges in the Northeast, which may also explain why the mean salaries offered are higher than other positions. Most salaries offered were clustered close to \$31,000. Residency positions in Small Animal

Medicine and Small Animal Surgery, together, represented 22.3% of academic residency positions offered during this match period.

Table 4:

Average Salary Offered for Academic Residency Positions by Practice Area			
Practice Area	% of Positions	Mean	Median
Ambulatory	.3%	\$35,700	\$35,700
Anesthesia	6.2%	\$32,480	\$33,000
Avian Medicine	.3%	\$28,000	\$28,000
Cardiology	3.6%	\$32,023	\$31,000
Clinical Nutrition	1.0%	\$31,864	\$28,000
Dentistry	1.6%	\$33,958	\$32,500
Dermatology	2.3%	\$34,685	\$33,500
Diagnostic Imaging and Radiology	5.6%	\$30,902	\$31,000
Emergency Medicine - Small Animal	9.2%	\$32,897	\$33,000
Equine Medicine	2.9%	\$33,564	\$33,000
Equine Surgery	2.3%	\$35,926	\$33,000
Exotic/Wildlife/Zoo	1.0%	\$38,895	\$41,592
Food Animal Medicine and Surgery	.7%	\$29,662	\$29,662
Herd Medicine/Agricultural Practices/Herd Production	1.0%	\$38,728	\$41,592
Laboratory Animal/Comparative Medicine	13.4%	\$45,463	\$45,000
Medicine- Large Animal	3.6%	\$31,944	\$33,000
Medicine - Small Animal	11.8%	\$31,667	\$31,000
Neurology/Neurosurgery	4.9%	\$31,559	\$30,500
Oncology	7.2%	\$32,411	\$32,500
Radiation Oncology Therapy	1.6%	\$31,668	\$29,000
Sports Medicine and Rehabilitation	.3%	\$32,500	\$32,500
Surgery - Large Animal	3.9%	\$32,086	\$33,000
Surgery - Small Animal	10.5%	\$31,154	\$30,225
Theriogenology	2.0%	\$31,683	\$30,974
Zoological Medicine	2.9%	\$32,055	\$30,500
Total	100.0%	\$34,074	\$33,000

Limitations

The salary data acquired from the VIRMP only represents a portion of available residency and intern positions offered in the United States. It is unclear how many positions are offered to new and recent graduates of the professional DVM program. Because of this, the authors are unable to claim that this data is wholly definitive of the salary ranges that may be offered to residents in the United States.

Conclusion

Residents are offered salaries less than half the national average salary earned by new graduates, however, there is a wide range of salaries within those offered. Overall, resident salaries rose faster than inflation. Finally, salaries and residencies are influenced by numerous things including location, practice area and whether the position is offered by an academic institution or a private practice.

Acknowledgements

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