# Employment, starting salaries, and educational indebtedness analyzed by gender for year-2020 graduates of US veterinary medical colleges 

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In cooperation with the 30 US colleges and schools of veterinary medicine, the AVMA conducted its annual survey of fourth-year veterinary medical students in spring 2020. Surveys were sent to 3,243 veterinary students who were expected to graduate in the United States in spring 2020, and responses were received from 2,874 (88.6\%; Appendix). Results reported here include an analysis according to gender; information on demographic characteristics and employment benefits is also provided. Of the students who responded to the survey, 493 (17.2\%) were male and 2,381 ( $82.8 \%$ ) were female. Base sizes in the present report vary because some respondents did not answer all questions.

At the time of expected graduation, 493 male and 2,381 female respondents reported a mean age of 28.4 and 28.0 , respectively. Also, $76.8 \%$ (378/492) of male respondents indicated that they were single, $21.7 \% ~(107 / 492)$ married, and $1.4 \%$ (7/492) divorced, and $76.4 \%(1,815 / 2,377)$ of female respondents indicated that they were single, $21.8 \%(517 / 2,377)$ married, $1.8 \%(43 / 2,377)$ divorced, and $0.1 \%(2 / 2,377)$ widowed. Finally, 9.3\% (46/492) of the male and 3.2\% $(76 / 2,377)$ of the female respondents reported that they had children.

## Employment Preferences, Offers, and Acceptances

At the time of the survey, $98.9 \%(2,843 / 2,874)$ of respondents reported that they had accepted a job offer or were currently seeking employment in veterinary medicine or enrollment in an advanced education program. The remaining respondents (1.1\% [31]) indicated that they had not accepted a job offer or were not actively seeking such positions. Respondents seeking veterinary positions were asked to indicate their top 3 employment preferences, and 490 male and 2,371 female respondents answered the question. Employment preferences were similar for male and female respondents; $66.9 \%(328 / 490)$ of male and $66.1 \%(1,567 / 2,371)$ of female respondents
indicated that their first choice was to secure employment in private practice. Also, $3.9 \%(19 / 490)$ of male and $4.4 \%(104 / 2,371)$ of female respondents indicated that their first choice was to work in public practice, and $28.8 \%(141 / 490)$ of male and $29.2 \%(692 / 2,371)$ of female respondents indicated that their first choice was to pursue advanced education. Lastly, $0.4 \%$ $(2 / 490)$ of male and $0.3 \%(8 / 2,371)$ of female respondents indicated that their first choice was to work in a segment of veterinary medicine identified as "other."

Among respondents who accepted a job offer or were currently seeking job offers, similar percentages of male and female respondents (male, $93.6 \%$ [452/483]; female, $94.0 \%$ [2,218/2,360]) received $\geq$ 1 offer of employment or an advanced education position. Of the 445 male respondents who reported the number of offers received, 180 ( $40.4 \%$ ) received 1 offer, 90 (20.2\%) received 2 offers, 74 (16.6\%) received 3 offers, and 101 (22.7\%) received $\geq 4$ offers. Of the 2,198 female respondents who reported the number of offers received, 902 ( $41.0 \%$ ) received 1 offer, 525 ( $23.9 \%$ ) received 2 offers, 394 (17.9\%) received 3 offers, and 377 ( $17.2 \%$ ) received $\geq 4$ offers. Mean (median) number of offers for male respondents was 2.6 (2) and for female respondents was 2.4 (2).

Regarding the type of position accepted, 63.3\% (286/452) of male and $63.9 \%(1,417 / 2,218)$ of female respondents accepted a position in veterinary medicine; $28.3 \%(128 / 452)$ of male and $29.4 \%(651 / 2,218)$ of female respondents accepted admission in an advanced education program (ie, internship, residency, or other academic program). Of the male and female respondents, $8.4 \%(38 / 452)$ and $6.8 \%(150 / 2,218)$, respectively, had not accepted a position in veterinary medicine or admission in an advanced education program; $8.2 \%(33 / 404)$ of male and $84.0 \%(1,722 / 2,050)$ of female respondents accepted employment or advanced education positions that were in the sector of their first choice.

The distribution of employment types among respondents who had accepted employment or ad-

Table I—Distribution of employment type by gender (male, $\mathrm{n}=406$; female, 2,053 ) for year-2020 graduates* of the 30 US veterinary medical colleges and schools.

|  | No. (\%) of <br> male <br> respondents | No. (\%) of <br> female <br> respondents |
| :--- | :---: | :---: |
| Employment type | $14(3.4)$ | $15(0.7)$ |
| Private practice | $17(4.2)$ | $32(1.6)$ |
| Food animal exclusive | $46(11.3)$ | $188(9.2)$ |
| Food animal predominant | $149(36.7)$ | $836(40.7)$ |
| Mixed animal | $36(8.9)$ | $235(11.4)$ |
| Companion animal exclusive | $4(1.0)$ | $26(1.3)$ |
| Companion animal predominant | $266(65.5)$ | $1,332(64.9)$ |
| Equine |  |  |


| Public and corporate practice |  |  |
| :--- | :---: | ---: |
| Federal government |  |  |
| $\quad$ Civil service | $2(0.5)$ | $18(0.9)$ |
| $\quad$ Uniformed services | $7(1.7)$ | $23(1.1)$ |
| College or university (faculty or staff) | $1(0.2)$ | $3(0.1)$ |
| State or local government | $0(0)$ | $2(0.1)$ |
| Industry-commercial | $0(0)$ | $6(0.3)$ |
| Not-for-profit | $1(0.2)$ | $13(0.6)$ |
| Other | $1(0.2)$ | $5(0.2)$ |
| All public and corporate practice | $12(3.0)$ | $70(3.4)$ |
|  |  |  |
| Advanced education program |  |  |
| Master's degreet | $2(0.5)$ | $7(0.3)$ |
| PhD | $7(1.7)$ | $15(0.7)$ |
| Internship | $107(26.4)$ | $568(27.7)$ |
| Residency | $11(2.7)$ | $47(2.3)$ |
| Education, other | $1(0.2)$ | $9(0.4)$ |
| Postdoctoral degree fellowship | $0(0)$ | $5(0.2)$ |
| All advanced education program | $128(31.5)$ | $651(31.7)$ |

*Surveys were sent to 3,243 veterinary medical students expected to graduate from the 30 US veterinary colleges or schools in spring 2020 , and responses were received from 2,874. The number of respondents who accepted a position in practice or in an advanced education program was 2,459. $\dagger$ Master's degree included Master of Preventive Medicine (male, $\mathrm{n}=\mathrm{I}$; female, I), Master of Public Health ( $0 ; 5$ ), and Master of Science (I; I).
vanced education positions was determined (Table I). Types of employment accepted most often by male respondents were exclusive companion animal practice (36.7\%), internship (26.4\%), and mixed animal practice ( $11.3 \%$ ). For female respondents, types of employment accepted most often were exclusive companion animal practice ( $40.7 \%$ ), internship ( $27.7 \%$ ), and predominant companion animal practice (11.4\%).

Respondents entering internships were asked to provide their primary reason for undertaking an internship. Among the 104 male respondents, the primary reasons were as follows: plan to apply for a residency program ( $\mathrm{n}=64$ [61.5\%]), practice betterquality veterinary medicine ( 20 ; [19.2\%]), believe need more training before entering veterinary practice (10 [9.6\%]), believe desired position requires internship prior to employment (7 [6.7\%]), and believe would earn more money in veterinary medicine by completing an internship (1 [1.0\%]). Among the 554 female respondents, rankings of primary reasons were the same as those of male respondents and were as follows: plan to apply for a residency program (256 [ $46.2 \%$ ]), practice better-quality veterinary medicine
(143 [25.8\%]), believe need more training before entering veterinary practice ( 90 [16.2\%]), believe desired position requires internship prior to employment (55 [9.9\%]), and believe would earn more money in veterinary medicine by completing an internship (4 [0.7\%]).

Of respondents entering private practice, $99.2 \%$ (260/262) of male and $99.7 \%(1,305 / 1,309)$ of female respondents indicated that they would be an employee rather than self-employed. Similarly, $99.8 \%$ (403/404) of male and $99.6 \%(2,038 / 2,047)$ of female respondents securing full-time or advanced education positions indicated that they expected to work full-time.

## Base Starting Salary

Survey questions allowed respondents to indicate various means by which they expected to be compensated for work (eg, guaranteed salary or stipend with no option for production bonus, base salary or stipend with production bonus, or $100 \%$ production based). Respondents who accepted an offer of employment or advanced education were asked to indicate types of compensation expected.

Among the 403 male respondents reporting the means of compensation, 237 (58.8\%) indicated that they would receive a guaranteed salary with no option for production bonus, 154 (38.2\%) indicated that they would receive a base salary with a production bonus, $6(1.5 \%)$ indicated that they would receive $100 \%$ production-based compensation, and 6 (1.5\%) indicated that they did not know. Among the 2,046 female respondents indicating the means of compensation, 1,217 (59.5\%) indicated that they would receive a guaranteed salary with no production bonus, 777 (38.0\%) indicated that they would receive a base salary with production bonus, 11 $(0.5 \%)$ indicated that they would receive $100 \%$ pro-duction-based compensation, and 41 (2.0\%) indicated that they did not know the means of compensation. Mean compensation for male respondents with offers of employment in private practice $(\mathrm{n}=265)$ was $\$ 93,866$ and for female respondents $(1,328)$ was $\$ 92,472$ (Table 2). For those securing employment in public and corporate practice, mean compensation for male respondents $(\mathrm{n}=12)$ was $\$ 59,958$ and for female respondents (70) was $\$ 79,059$. For respondents who secured advanced education positions (including internship and residency programs), mean compensation for male respondents ( $\mathrm{n}=125$ ) was $\$ 36,582$ and for female respondents (640) was $\$ 37,333$.

Mean (median) hours per week that male and female respondents with offers of full-time employment were expected to work were 45 (42) and 44 (40), respectively. Mean (median) hours per week that male and female respondents with offers of advanced education programs were expected to work were 61 (60) and 63 (60), respectively.

Table 2-Mean full-time starting salaries of year-2020 graduates* of the 30 US veterinary medical colleges and schools, by gender and employment type.

| Employment type | Male respondents |  |  | Female respondents |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. (\%) accepting positions | Mean (SD) starting salary | No. reporting starting salary | No. (\%) accepting positions | Mean (SD) starting salary | No. reporting starting salary |
| Private practice |  |  |  |  |  |  |
| Food animal exclusive | 14 (3.4) | 88,457 (15,553) | 14 | 15 (0.7) | 87,500 (14,494) | 15 |
| Food animal predominant | 17 (4.2) | 86,44I (13,799) | 17 | 32 (1.6) | 79,910 ( 23,422 ) | 31 |
| Mixed animal | 46 (11.3) | 85,244 (12,789) | 45 | 188 (9.2) | 79,987 (12,348) | 188 |
| Companion animal exclusive | 149 (36.7) | 98,606 ( 23,623 ) | 149 | 836 (40.7) | 96,505 (19,895) | 835 |
| Companion animal predominant | 36 (8.9) | 92,731 (17,458) | 36 | 235 (11.4) | 93,991 (19,125) | 234 |
| Equine | 4 (1.0) | 75,000 (34,881) | 4 | 26 (1.3) | 56,000 (21,114) | 25 |
| All private practice | 266 (65.5) | 93,866 (21,303) | 265 | 1,332 (64.9) | 92,472 $(20,467)$ | 1,328 |
| Public and corporate practice |  |  |  |  |  |  |
| Federal government |  |  |  |  |  |  |
| Civil service | 2 (0.5) | - | 2 | 18 (0.9) | 70,516 (7,887) | 18 |
| Uniformed services | 7 (1.7) | 9,714 (15,294) | 7 | 23 (1.1) | 68,727 (13,762) | 23 |
| College or university | 1 (0.2) | - | 1 | 3 (0.1) | 49,200 (31,089) | 3 |
| State or local government | 0 (0) | 0 | 0 | 2 (0.1) | - | 2 |
| Industry-commercial | 0 (0) | 0 | 0 | 6 (0.3) | 122,750 (26,940) | 6 |
| Not-for-profit | 1 (0.2) | - | 1 | 13 (0.6) | 93,538 (12,907) | 13 |
| Other | I (0.2) | - | 1 | 5 (0.2) | 78,800 $(23,669)$ | 5 |
| All public and corporate practice | 12 (3.0) | 58,958 (16,060) | 12 | 70 (3.4) | 79,059 (23,284) | 70 |
| Advanced education program |  |  |  |  |  |  |
| Master's degree $\dagger$ | 2 (0.5) | - | 1 | 7 (0.3) | 48,167 (27,624) | 3 |
| PhD | 7 (1.7) | 28,857 (8,092) | 7 | 15 (0.7) | 37,532 (20,028) | 15 |
| Internship | 107 (26.4) | 36,257 (9,84I) | 105 | 568 (27.7) | 36,466 (9,654) | 564 |
| Residency | 11 (2.7) | 41,973 (8,557) | 11 | 47 (2.3) | 42,058 (9,789) | 47 |
| Education, other | 1 (0.2) | - | 1 | 9 (0.4) | 56,972 (17,654) | 6 |
| Postdoctoral degree fellowship | 0 (0) | 0 | 0 | 5 (0.2) | 58,800 (7,396) | 5 |
| All advanced education program | 128 (31.5) | 36,582 (10,272) | 125 | 651 (31.7) | 37,333 (10,633) | 640 |
| Total | 406 | 75,012 (32,272) | 402 | 2,053 | 74,693 (31,181) | 2,038 |

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## Additional

## Compensation and Benefits

Respondents were asked whether they would receive a signing bonus, moving allowance, compensation for handling cases on an emergency basis, housing allowance, or student loan repayment assistance (Table 3). They were also asked to report the dollar amount that they anticipated earning for these additional income streams. Of the 404 male respondents, 181 ( $44.8 \%$ ) indicated that they would earn additional compensation, and of the 2,046 female respondents, 974 (47.6\%) indicated that they would earn additional compensation. Among those who anticipated additional compensation, $60.2 \%(109 / 181)$ of male and $56.4 \%$ (549/974) of female respondents indicated that they would receive a signing bonus, and $33.1 \%$ (60/181) of male and $42.1 \%$ (410/974) of female respondents indicated that they would receive a moving allowance. Of the 181 male and 974 female respondents, 47 (26.0\%) and 212 (21.8\%), respectively, indicated that they would receive compensation for handling cases on an emergency basis. Additionally,

21 (11.6\%) male and 79 (8.1\%) female respondents indicated that they would receive a housing allowance, and 20 (11.1\%) male and 171 (17.6\%) female respondents indicated that they would receive student loan repayment assistance.

Of the 106 male respondents who reported a signing bonus, the mean was $\$ 7,800$, and of the 533 female respondents, the mean was $\$ 9,383$. For the 51 male respondents who reported a moving allowance, the mean was $\$ 2,894$, and for the 355 female respondents, the mean was $\$ 3,579$. For the 21 male respondents who reported compensation for handling cases on an emergency basis, the mean was $\$ 6,300$, and for the 55 females, the mean was $\$ 5,767$. For the 12 male respondents who reported a housing allowance, the mean was $\$ 9,758$, and for the 41 female respondents, the mean was $\$ 7,705$. For the 13 male respondents who reported student loan repayment assistance, the mean was $\$ 12,742$, and for the 124 female respondents, the mean was \$3,562.

Male respondents $(\mathrm{n}=403)$ reported that they anticipated a mean (median) of 9.0 (9.0) benefits, and female respondents $(2,037)$ reported that they antici-

Table 3-Types of additional compensation anticipated during the first year of full-time employment for year-2020 graduates* of the 30 US veterinary medical colleges and schools.

|  | Male |  |  | Female |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of additional compensation | No. (\%) of respondents | Compensation (\$) | No. reporting compensation amount | No. (\%) of respondents | Compensation (\$) | No. reporting compensation amount |
| Signing bonus | 109 (60.2) | 7,800 (6,103) | 106 | 549 (56.4) | 9,383 (7,593) | 533 |
| Moving allowance | 60 (33.1) | 2,894 (1,986) | 51 | 410 (42.1) | 3,579 (2,655) | 355 |
| Emergency case compensation | 47 (26.0) | 6,300 (3,300) | 21 | 212 (21.8) | 5,767 (4,117) | 55 |
| Housing allowance | 21 (11.6) | 9,758 (6,820) | 12 | 79 (8.1) | 7,705 (6,475) | 41 |
| Student loan repayment assistance | 20 (11.1) | 12,742 (32,265) | 13 | 171 (17.6) | 3,562 (4,643) | 124 |

[^0]Table 4-Benefits anticipated during the first year of full-time employment for year-2020 male ( $\mathrm{n}=403$ ) and female $(2,037)$ graduates* of the 30 US veterinary medical colleges and schools.

| Benefit | No. (\%) of male respondents | No. (\%) of female respondents |
| :---: | :---: | :---: |
| Medical or hospitalization plan | 276 (68.5) | 1,478 (72.6) |
| Dental plan | 224 (55.6) | I,I72 (57.5) |
| Disability insurance | 151 (37.5) | 760 (37.3) |
| Life insurance | 117 (29.0) | 593 (29.1) |
| Liability insurance | 243 (60.3) | 1,350 (66.3) |
| Paid sick leave | 264 (65.5) | 1,288 (63.2) |
| Paid vacation leave | 325 (80.6) | I,693 (83.1) |
| Paid legal holidays | 149 (37.0) | 756 (37.1) |
| Tax-deferred retirement plan (eg, 401 [k] or IRS-qualified profit-s plan) | $\begin{aligned} & 180(44.7) \\ & \text { ring } \end{aligned}$ | 978 (48.0) |
| Informal profit-sharing plan, not tax deferred | I (2.7) | 48 (2.4) |
| Employer contribution or match to tax-deferred retirement plan | 158 (39.2) | 869 (42.7) |
| Continuing education leave | 231 (57.3) | I,I77 (57.8) |
| Paid continuing education expenses | 295 (73.2) | 1,587 (77.9) |
| Paid license fees | 307 (76.2) | I,491 (73.2) |
| Paid association dues | 246 (61.0) | 1,207 (59.3) |
| Use of personal vehicle | 58 (14.4) | 211 (10.4) |
| Discounted cost for pet care | 247 (61.3) | I,334 (65.5) |
| Maternity or paternity leave | 59 (14.6) | 662 (32.5) |
| Other | 15 (3.7) | 106 (5.2) |
| None of the above | 10 (2.5) | 29 (1.4) |

## See Table I for key.

pated 9.3 (10) benefits. Among male respondents, the most frequently received benefits were paid vacation leave ( $n=325$ [80.6\%]), license fees ( 307 [76.2\%]), and continuing education expenses (295 [73.2\%]); offered medical or hospitalization plan (276 [68.5\%]); paid sick leave (264 [65.5\%]); discounted cost for pet care (247 [61.3\%]); paid association dues (246 [61.0\%]); and paid liability insurance (243 [60.3\%]; Table 4). Among female respondents, the most frequently received benefits were paid vacation leave (1,693 [83.1\%]), continuing education expenses ( 1,587 [77.9\%]), and license fees ( 1,491 [ $73.2 \%]$ ); offered medical or hospitalization plan ( 1,478 [72.6\%]); paid liability insurance ( 1,350 [66.3\%]); discounted pet care (1,334 [65.5\%]); and paid sick leave (1,288 [63.2\%]).

Table 5-Distribution of educational debt accumulated during veterinary school by gender (male, $\mathrm{n}=492$; female, 2,367) for year-2020 graduates* of the 30 US veterinary medical colleges and schools.

| Educational debt (\$) | No. (\%) of <br> male <br> respondents | No. (\%) of <br> female <br> respondents |
| :--- | :---: | :---: |
| 0 | $66(13.4)$ | $414(17.5)$ |
| $1-49,999$ | $27(5.5)$ | $107(4.5)$ |
| $50,000-99,999$ | $47(9.6)$ | $217(9.2)$ |
| $100,000-149,999$ | $82(16.7)$ | $342(14.4)$ |
| $150,000-199,999$ | $110(22.4)$ | $466(19.7)$ |
| $200,000-249,999$ | $52(10.6)$ | $303(12.8)$ |
| $250,000-299,999$ | $41(8.3)$ | $229(9.7)$ |
| $300,000-349,999$ | $41(8.3)$ | $189(8.0)$ |
| $350,000-399,999$ | $17(3.5)$ | $70(3.0)$ |
| $400,000-449,000$ | $7(1.4)$ | $25(1.1)$ |
| $450,000-499,999$ | $2(0.4)$ | $4(0.2)$ |
| $\geq 500,000$ | $0(0.0)$ | $1(0.0)$ |

[^1]
## Educational Debt

Respondents were asked to report the amount of educational debt they had on entry to veterinary school and their total anticipated educational debt at the time of graduation. Of the 493 male respondents, 492 (99.8\%) reported their amount of educational debt; of the 2,381 female respondents, 2,367 (99.4\%) reported this information (Table 5). The amount of debt accumulated during veterinary school was calculated by subtracting the entering debt amount from the anticipated debt at the time of graduation.

Mean (median) debt for male respondents was $\$ 160,243(\$ 159,242)$ and for female respondents was $\$ 156,503$ ( $\$ 161,000$ ). Sixty-six of 492 (13.4\%) male and 414 of 2,367 ( $17.5 \%$ ) female respondents indicated that they anticipated graduating with no debt. Of the respondents graduating with debt, 27 (5.5\%) male and 107 (4.5\%) female respondents indicated that they anticipated a veterinary educational debt of $<\$ 50,000,160$ (32.5\%) male and 821 (34.7\%) female respondents indicated that they anticipated a veterinary educational debt of $\geq \$ 200,000$, and 67 (13.6\%) male and 289 (12.2\%) female respondents anticipated a veterinary educational debt of $\geq \$ 300,000$.

## Appendix

Response rates for fourth-year students at the 30 colleges and schools of veterinary medicine in the United States who participated in a 2020 survey of employment.

| Veterinary college or school | No. of fourth-year students | No. of completed surveys | Response rate (\%) |
| :---: | :---: | :---: | :---: |
| Auburn University | 115 | 115 | 100 |
| Colorado State University | 144 | 104 | 72.2 |
| Cornell Veterinary College | 100 | 100 | 100 |
| Cummings SVM at Tufts University | 92 | 62 | 67.4 |
| Iowa State University | 138 | 118 | 85.5 |
| Kansas State University | 115 | 91 | 79.1 |
| Lincoln Memorial University | 108 | 108 | 100 |
| Louisiana State University | 88 | 88 | 100 |
| Michigan State University | 114 | 109 | 95.6 |
| Midwestern University | 109 | 68 | 62.4 |
| Mississippi State University | 87 | 87 | 100 |
| North Carolina State University | 99 | 98 | 99.0 |
| The Ohio State University | 157 | 133 | 84.7 |
| Oklahoma State University | 88 | 62 | 70.5 |
| Oregon State University | 56 | 56 | 100 |
| Purdue University | 80 | 80 | 100 |
| Texas A\&M University | 132 | 123 | 93.2 |
| Tuskegee University | 56 | 53 | 94.6 |
| University of California-Davis | 145 | 145 | 100 |
| University of Florida | 113 | 107 | 94.7 |
| University of Georgia | 111 | 109 | 98.2 |
| University of Illinois | 155 | 131 | 84.5 |
| University of Minnesota | 97 | 90 | 92.8 |
| University of Missouri | 114 | 98 | 86.0 |
| University of Pennsylvania | 117 | 90 | 76.9 |
| University of Tennessee | 79 | 73 | 92.4 |
| University of Wisconsin-Madison | 84 | 77 | 91.7 |
| Virginia-Maryland College of Veterinary Medicine | 123 | 123 | 100 |
| Washington State University | 127 | 100 | 78.7 |
| Western University of Health Sciences | 100 | 76 | 76.0 |
| Total | 3,243 | 2,874 | 88.6 |

SVM = School of Veterinary Medicine.


[^0]:    For each type of additional compensation, mean (SD) monetary compensation is reported. Values were based on information from I8I male respondents and 974 female respondents who indicated that they would receive $\geq I$ type of additional compensation.

    See Table I for key.

[^1]:    The amount of educational debt accumulated during veterinary school was calculated by subtracting the entering debt amount from the anticipated debt at the time of graduation.

    See Table I for key.

