

AAVMC ACADEMIC ADMINISTRATOR LEADERSHIP DEVELOPMENT NEEDS ASSESSMENT – 2019

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Authors:

James W. Lloyd, Caroline A. Cantner, Vanessa Mariani, Lisa M. Greenhill, N. Karl Haden, Felicia L. Tucker-Lively, H. Michael Chaddock

Author Affiliations:

James W. Lloyd, DVM, PhD

Senior Consultant, Animal Health Economics, LLC and Dean Emeritus, College of Veterinary Medicine, University of Florida

Caroline A. Cantner, VMD

Director for Professional Development, AAVMC

Vanessa Mariani, MBA

Formerly Director of Strategic Initiatives, AAVMC

Lisa M. Greenhill, MPA, EdD

Senior Director for Institutional Research & Diversity, AAVMC

N. Karl Haden, PhD

President, AAL

Felicia L. Tucker-Lively, PhD, MPH

Vice President, AAL

H. Michael Chaddock, DVM, EML

Formerly Deputy Director, AAVMC

Corresponding Author:

James W. Lloyd
james.lloyd@animalhealthconomics.com

INTRODUCTION

During 2019, the Association of American Veterinary Medical Colleges (AAVMC) engaged in a strategic planning exercise with the intent of updating the existing strategic framework developed in 2008. Five major goals emerged from this process:

1. Serve as the thought leader and primary advocate for academic veterinary medicine.
2. Identify, inspire, and recruit qualified and diverse applicants who will serve as the future veterinary medical workforce.
3. Build a robust pipeline of future scholars and academic leaders for academic veterinary medicine and support them throughout their careers.
4. Advance teaching and learning to prepare students, faculty, and academic staff for professional success in a wide variety of careers.
5. Foster discovery to improve the health and wellbeing of people, animals, and the environment.

In pursuit of building a robust pipeline, several strategies were adopted, including the following:

Provide professional development opportunities to support faculty, academic staff, and administrators in their dual roles as scholars and leaders.

As an initial action step within this strategy, it was decided that the deans' profile survey conducted in 2010¹ should be repeated. However, the scope of the current study was expanded to encompass all academic administrators at AAVMC member institutions, to include deans, executive associate/vice deans, associate/assistant deans, department chairpersons, and program directors. Similar to 2010, the AAVMC partnered with the Academy for Advancing Leadership (AAL) to conduct the current study. With focus on the broader group of academic administrators, objectives of the current study were:

- characterize career pathways toward leadership positions, including the level of engagement in leadership development activities;
- determine commitment of time and allocation across various work activities, level of job satisfaction, and factors that contribute to job satisfaction;
- determine perceived importance of key knowledge and competencies to participants' current leadership position;

- define participants' perceived level of preparedness when entering their current leadership position;
- identify the greatest challenges currently faced, define factors that are expected to pose the greatest challenges to leadership teams over the next decade, and characterize key development needs/opportunities; and
- determine what programs AAVMC might make available in the future to enhance success of leaders at all levels in academic veterinary medicine, but in particular to support deans once they have attained that position.

METHODS

Questionnaire Design

Drawing on the 2010 study, a similar survey was developed by the leadership team of the AAVMC. The questionnaire included a combination of selected-response questions (Likert-type scale), closed-ended questions (yes/no, select one/all that apply options), and open-ended questions divided into nine areas: demographics, information about current position, information about training, time spent in work activities, job satisfaction, perceived importance of specific knowledge and competencies, level of preparedness for specific competencies, current and anticipated future challenges/impact, and leadership development needs. Content validity of the questionnaire was established through a review completed by a panel of leaders of the AAVMC.

Data Collection

This study targeted all current academic administrators of AAVMC member institutions. In total, 403 invitations were sent to deans, executive associate/vice deans, associate/assistant deans, department chairpersons, program directors, and other academic leaders.

The survey was created and distributed in electronic format (SurveyMonkey, 2019) during October of 2019. Although web-based surveys generally have lower response rates compared to face-to-face and/or paper surveys, web-based surveys are reportedly more accurate because respondents are less concerned about giving socially acceptable answers, thus providing more honest responses.² Additionally, researchers have found that web-based participant responses contain fewer random and systematic errors than other forms of survey responses.³ A two-wave emailing across four weeks was used to increase the survey response rate. Reminders were sent to those who began and had not completed the survey. A different reminder was sent to those who had not yet started the survey.

Statistical Analyses

Recorded responses were imported and analyzed descriptively using SPSS, 26.0 (IBM, Inc: Armonk, New York). In this step, internal reliability of the questionnaire was assessed using Cronbach's Alpha and descriptive statistics were generated to compare frequencies/percentages of responses for variables of interest. Subsequently, Pearson's chi-squared test was used to assess potential differences by gender identity and current position 1) across the other demographic, current position, and training information variables, and 2) for each specific job satisfaction, level of importance, level of preparedness, degree of anticipated challenge, and leadership development item. The strong interest in gender identity is based on the trend toward increasing proportions of faculty who identify as female. Although assessing potential differences by ethnicity, race, and other dimensions of diversity were also of interest, insufficient variability existed among respondents to support robust statistical analysis with regard to race and ethnicity, and data on other dimensions of diversity were not collected in the present study. Analysis of variance (GLM) was used to assess potential differences by gender identity and current position in 1) time commitment (total hours/week), and 2) time allocation (logit of % time for each work activity). Chi-squared and analysis of variance statistics were calculated using Minitab 19.2 (Minitab, LLC: State College, Pennsylvania).

Qualitative Analysis

Responses to open-ended questions were analyzed and summaries prepared using Dedoose (SocioCultural Research Consultants, LLC, Manhattan Beach, CA).

RESULTS

Overall, 243 of the 403 targeted recipients opened the survey (61%; 243/403), and a total of 116 completed surveys were received (48%; 116/243). Of these, 15 (12.9%; 15/116) responded that they were not currently an administrator within a veterinary medicine program. As a whole, the study achieved a 28.8% response rate (116/403). Cronbach's Alpha to assess the internal reliability of the entire instrument was 0.73. The same statistic for each of the respective focus areas within the questionnaire can be found in Table 1.

Descriptive Statistics

1. **Demographics, Current Position, and Training Information** – Data that describe key characteristics of the overall respondent population are presented in Table 2.0, and the

same items split out by current position are presented in Table 2.1. Several dimensions warrant mention:

- Respondent demographics
 - Overall, 60.9% of respondents identified as male
 - Respondents who identified their ethnicity as Hispanic were relatively uncommon, as were those who identified their race as non-White/Caucasian. As a result, these demographic dimensions were omitted from the split out by current position to maintain confidentiality.
 - Less than 6% of respondents were under 45 years of age.
- Current position
 - At the time of the survey, the greatest number of respondents held a department chair position, followed by associate/assistant deans and deans. Only three respondents held a program director or other administrative position. Because of the low number, this group was not analyzed separately.
 - Over 90% of respondents had held their current position for over one year.
 - For 76% of respondents, this was the first institution where they had served on the leadership team.
- Academic training
 - Most respondents (84.0%) held a DVM or equivalent, including all deans.
 - Most respondents were specialty boarded (72.0%), led by deans at 85.7%.
 - A majority of respondents across current position categories held multiple academic degrees.
- Leadership development/training – As presented in Table 2.0, an overall total of 85.1% of respondents had participated in formal leadership development activities that they found to be valuable. Among the three current position groups included in Table 2.1, deans were the highest in rate of participation at 95.2%. When asked (open-ended) to list up to three of the most valuable/useful leadership development activities in which they had participated, responses included a litany of both programs and topics. *Programs* that were mentioned included:
 - Campus-specific offerings (33 mentions),
 - AAVMC Leadership Academy (17 mentions),
 - AAVMC committees, meetings, and other activities (eight mentions),
 - PennVet Wharton program (five mentions),
 - Various Harvard programs and personal coaching (four mentions each),
 - Veterinary Leadership Experience (VLE) and AVMA (each mentioned three times),

- American Association of Veterinary Clinicians (AAVC), Leading with Integrity (VLI), Chairs and Academic Administrators Management Program (CAAMP, by AAL), Center for Creative Leadership (CCL), Big Ten Leadership Program, 360-degree assessments, and Crucial Conversations (each mentioned twice), and
- A variety of 15 other programs mentioned just once each [Higher Education Resource Services (HERS) Leadership Institute, Food Systems Leadership Institute (FSLI), American Association of Colleges of Osteopathic Medicine (AACOM) – Administrator Leadership Development Program (ALDP), Council for Advancement and Support of Education (CASE), Lean Six Sigma, North American Veterinary College Administrators (NAVCA), Daring Greatly, Bridges Leadership Program for Women-UNC Charlotte, Journey of Collaboration, Lead 21, Active Bystander Training, Veterinary Management Group-VMG, DeVry Medical International Leadership and Culture Shaping Programs, MBA, and MSED].

Topics that were specifically mentioned included:

- General leadership training (mentioned 10 times),
- Conflict and mediation (seven mentions),
- Self-reflective leadership/personal assessment (six mentions),
- Hands-on experience with a leadership team, and funding/planning/investing (each mentioned five times),
- Diversity and bias training (four mentions),
- Change management and teams/management/facilitation (each mentioned three times),
- Time management, actor role playing, communication, and teaching/curriculum (each mentioned twice), and
- Eight other topics mentioned just once each (marketing, negotiations, media interview training, mentorship, governance, administration, faculty recruitment, and design thinking).

Table 2.0 also indicates that 33.0% of respondents (overall) had participated in the AAVMC Leadership Academy, ranging from 19.0% of deans to 47.6% of department chairs (Table 2.1). Other AAVMC professional development programs in which respondents had participated included VEC (veterinary education collaborative), CBVE (competency based veterinary education), Iverson Bell Symposia, the annual conference, and the annual Deans Leadership Conference. Data from a question asking respondents about their level of interest in participating in an AAVMC leadership development experience are summarized in Table 9. Overall, 85.2% of respondents indicated either a “Moderate” or “High” level of interest in such programs, with deans indicating the greatest interest followed by department chairs.

2. Time Allocation and Commitment – Data that describe respondents' time allocation and time commitment are presented by current position in Tables 3 and 4, respectively.

- Not surprisingly, the work activity that respondents reported as commanding the greatest proportion of their time, regardless of current position, was administration/management.
- For deans, the second largest time commitment involved fund raising. Teaching was the second greatest time commitment for both the department chairs and the group comprised of executive associate/associate/assistant deans.
- Most respondents reported workweeks of over 50 hours, and 60+ hours was not uncommon.

3. Job Satisfaction – Overall, current job satisfaction was found to be quite high. In response to the single umbrella question related to overall job satisfaction, 40.9% (n=243) of all survey respondents reported that they were "Very Satisfied" and another 49.0% (n=291) responded that they were "Satisfied" (Table 5). Notably, several items of interest emerged as specific factors/job attributes were individually assessed.

- Those specific factors/job attributes that ranked the *highest in satisfaction*, as determined by the sum of "Satisfied" and "Very Satisfied" responses that, when combined, represented over 90% of all survey respondents, were:
 - Teaching – 96.3% of all survey respondents
 - Community relations – 95.5%
 - Geographic location – 94.6%
 - Job security – 93.6%
 - Students – 93.3%
 - Academic environment – 91.3%
 - Professional growth – 90.3%
 - Career options – 90.3%
 - Faculty – 90.2%
- Factors that were *lowest in satisfaction* where more than 20% of all survey respondents indicated they were either "Very Dissatisfied" or "Dissatisfied", included:
 - Facilities (research, teaching, clinical) – 30.8% of all survey respondents
 - Budget/financial management – 26.8%
 - Fundraising – 25.7%
 - Research – 20.4%

4. Perceived Importance of Specific Knowledge and Competencies – Summary data presented in Table 6 provide an overview of respondents' ratings for the importance of 16 specific knowledge and competencies

in their current position. Items are listed in order of highest to lowest levels of importance as determined by the sum of "Important" and "Very Important" responses.

- Those factors that ranked the *highest in importance*, as determined by the sum of "Important" and "Very Important" responses that, when combined, represented over 90% of all survey respondents, were:
 - Communication – 100.0% of all survey respondents
 - Conflict resolution – 97.9%
 - Diversity and inclusion – 96.8%
 - Faculty work-life – 94.8%
 - Operations and policies of parent institution – 90.3%
 - Accreditation (if applicable) – 90.2%
- Factors that were *lowest in importance*, where more than 20% of all survey respondents indicated either "Not Important" or "Moderately Important", included:
 - Fundraising – 46.4% of all survey respondents
 - Clinical – 33.7%
 - Research – 29.0%
 - Public relations – 28.5%
 - Professional organizations/associations – 23.1%
 - Curriculum – 21.8%

5. Level of Preparedness for Specific Competencies – Respondents were asked to rate each of 15 specific factors in terms of how prepared they were to address its challenges when they entered their current position. Results are presented in Table 7, where items are listed in order of highest to lowest levels of preparedness as determined by the sum of "Prepared" and "Very Prepared" responses.

- Those factors that ranked the *highest in preparedness*, as determined by the sum of "Prepared" and "Very Prepared" responses that, when combined, represented over 70% of all survey respondents, were:
 - Clinical care (students) – 80.1% of all survey respondents
 - Clinical care (faculty practice) – 77.5%
 - Time management – 75.5%
 - Student relations – 70.6%
- Factors that were rated *lowest in preparedness*, where more than 50% of all survey respondents indicated either "Not Prepared" or "Somewhat Prepared", included:
 - Fundraising – 61.5% of all survey respondents
 - Financial/budget management – 60.9%
 - Interaction with parent university – 52.1%
 - Interaction with alumni/former students – 51.1%
 - Interaction with other schools at parent university – 50.6%

6. Challenges – Respondents provided their perceptions of current and anticipated future challenges.

- In an open-ended question, participants were asked to identify the single greatest challenge they face in their current position today. Responses included:
 - Recruiting/retaining faculty and staff (mentioned 18 times);
 - Lack of resources and lack of time (each mentioned 13 times);
 - Conflict management (mentioned six times);
 - Budget balancing and ineffective top leadership (each mentioned five times);
 - Culture change and juggling priorities (each mentioned three times);
 - Communication, fundraising, lack of institutional commitment to research, and prioritizing self-care/taking care of oneself (each mentioned twice); and
 - A total of 15 other items, mentioned just once each (administrative burden, changing KPIs, executive engagement, HR issues, improving diversity, inefficiencies, lack of data, lack of permanent university administrators, lack of respect for role, lack of space, recruiting of students, salary disparity, strategic conflict, strategic decision-making, and transitioning to leadership role).
- Participants were also asked, in an open-ended question, about the greatest challenge they anticipate someone in their position will face over the next 10 years. Responses included:
 - Faculty and staff recruitment and retention (20 mentions);
 - Sustaining current programs and trajectories (13 mentions);
 - Budget (mentioned seven times);
 - Changes in attitudes/perceptions of higher education (mentioned five times);
 - Competing with private specialty practice, educational change, managing financial resources, and meeting KPIs (each mentioned four times);
 - Lack of time (mentioned three times);
 - Administrative burden, changing learner needs, demographic changes, DVM faculty specifically, fundraising, increasing class size, maintaining career trajectory, and maintaining institutional reputation (each mentioned twice); and
 - A total of 18 other items, mentioned just once each (admissions, communication, decreasing public support, European politics, pipeline development for leadership, research faculty, faculty/staff collaborative relationships, HR issues, lack of accountability, long term self-care, managing student and faculty expectations, managing the

leadership team, meeting employer needs in a tertiary care system, personal KPIs, recruiting, specialty growth, technology, and an unwillingness of academic leaders to make tough decisions).

Following these open-ended queries, in a related section of the questionnaire entitled “Impact”, respondents were asked to rate each of eight specific factors in terms of its degree of anticipated challenge over the next 10 years. Results are presented in Table 8, where items are listed in order of highest to lowest levels of challenge as determined by the sum of “Moderate” and “High” responses.

- Those factors that ranked the *highest* in terms of *anticipated challenge*, as determined by the sum of “Moderate” and “High” responses that, when combined, represented over 90% of all survey respondents, were:
 - Faculty recruitment and retention – 99.0% of all survey respondents
 - Financing veterinary education – 97.9%
 - Curriculum change – 94.6%
 - Sustaining the college/school’s research mission – 91.3%
- Factors that were rated *lowest* in terms of *anticipated challenge*, where more than 30% of all survey respondents indicated either “None” or “Low”, included:
 - Relationship with professional veterinary associations – 46.7% of all survey respondents
 - Remaining valuable to parent institution – 37.0%

7. Leadership Development Needs – In the context of these challenges, participants were asked (open-ended) about their development needs since becoming a part of the academic leadership team. Responses included:

- Business/budget management (13 mentions)
- Conflict management (13 mentions);
- Fundraising (11 mentions);
- HR training (seven mentions);
- Building consensus, executive communication, and general management (six mentions each);
- Peer mentoring (four mentions);
- Inter-CVM collaboration, intergenerational difference, organizational development, time management, and training by level (each mentioned three times);
- Executive self-care, managing up, mentoring training, strategic planning, and use of professional coach (each mentioned twice); and

- A total of 19 other items mentioned just once each (active bystander training, change agent, creation of new resources, developmental training for professional staff, diversity/equity/inclusion, emotional IQ, financial literacy, alumni relations, inflexibility in delegation, influencing capacity, marketing, offering student/faculty support, outcomes assessment, primer in medical education, public speaking, recruiting personnel, recruiting international residents, support for graduate student issues, and team development).

In a final open-ended question, respondents were asked to provide additional suggestions for AAVMC as it considers the Association's role in providing leadership development to its members. Responses included:

- Target young, talented faculty (mentioned seven times);
- More accessible programming (mentioned five times);
- Advanced programming and continue current AAVMC Leadership Academy (each mentioned four times);
- Academy alumni engagement, expand program enrollment, international engagement, interprofessional training, and partnering with other leadership programs (each mentioned twice); and
- A variety of 10 other topics mentioned just once each (creating effective leadership teams, cross-institutional mentoring, guidance on quality leadership programs, incentivize academy engagement, leadership as academic preparation, other AAVMC meetings, practical learning, scenario learning, self-advocacy of controversial positions, and strategies to prioritize leadership development).

STATISTICAL ANALYSES

Gender Identity – Overall, only three instances of significant difference were found based on gender identity. Those that were identified included:

- How long in current position? (from Table 2.0) – A significantly ($p=0.042$) greater proportion of respondents who identified as female had been in their current position two years or less.
- Level of satisfaction with facilities (research, teaching, clinical) (from Table 5) – A significantly ($p=0.037$) greater proportion of respondents who identified as male were very satisfied.

- Level of preparedness in technology applications (from Table 7) – A significantly ($p=0.046$) greater proportion of respondents who identified as male considered themselves very prepared.

Current Position – In contrast to gender identity, analyses by current position revealed a number of significant differences.

- Several significant ($p<0.05$) differences were identified in current position and training information, as indicated in Table 2.0. The direction and magnitude of these differences are apparent from data presented in Table 2.1, and the specific variables included:
 - First institution served on leadership team – A significantly ($p=0.002$) greater proportion of deans had served on the leadership team at a previous institution.
 - Degree completed
 - DVM or equivalent – A significantly ($p=0.030$) greater proportion of deans held a DVM or equivalent degree.
 - DVM + specialization – A significantly ($p=0.037$) greater proportion of department chairs held the combination of DVM plus specialty certification.
 - DVM + other degree + specialization – A significantly ($p=0.017$) greater proportion of deans held the three-way combination of DVM plus another degree plus specialty certification.
 - PhD – A significantly ($p=0.000$) greater proportion of deans held a PhD.
 - AAVMC Leadership Academy participant – A significantly ($p=0.037$) greater proportion of department chairs had been participants in the AAVMC Leadership Academy.
- As indicated in Table 3, several significant ($p<0.05$) differences were also identified based on reported time allocation. The direction and magnitude of these differences are apparent from data presented in Table 3, and a summary follows.
 - Deans reported spending a significantly lower proportion of their time teaching than executive associate/associate/assistant deans.
 - Executive associate/associate/assistant deans reported spending a significantly greater proportion of their time in teaching hospital administration than either deans or department chairs.
 - Deans reported spending a significantly greater proportion of their time fundraising than either executive associate/associate/assistant deans or department chairs.
 - Deans reported spending a significantly greater proportion of their time with alumni relations than did department chairs.

- Significant differences identified related to *Job Satisfaction* (Table 5) involved:
 - Teaching – A significantly ($p=0.002$) greater proportion of executive associate/associate/assistant deans and a significantly lower proportion of department chairs reported being very satisfied.
 - Annual salary and benefits – A significantly ($p=0.017$) greater proportion of deans reported being very satisfied and a significantly greater proportion of executive associate/associate/assistant deans reported being dissatisfied.
- Differences related to *Perceived Importance of Specific Knowledge and Competencies* (Table 6) included:
 - Diversity and inclusion – A significantly ($p=0.042$) greater proportion of deans and executive associate/associate/assistant deans considered the level of knowledge/competence to be very important.
 - Accreditation (if applicable) – A significantly ($p=0.005$) greater proportion of deans and executive associate/associate/assistant deans and a significantly lower proportion of department chairs considered the level of knowledge/competence to be very important.
 - Professional organizations/associations – A significantly ($p=0.001$) greater proportion of deans and executive associate/associate/assistant deans considered the level of knowledge/competence to be very important.
 - Public relations – A significantly ($p=0.011$) greater proportion of deans and executive associate/associate/assistant deans considered the level of knowledge/competence to be very important.
 - Research – A significantly ($p=0.002$) greater proportion of department chairs considered the level of knowledge/competence to be very important.
 - Fundraising – A significantly ($p=0.001$) greater proportion of deans and executive associate/associate/assistant deans considered the level of knowledge/competence to be very important.
- Differences related to *Level of Preparedness for Specific Competencies* (Table 7) involved:
 - Personnel management (staff) – A significantly ($p=0.015$) greater proportion of deans and a significantly lower proportion of department chairs considered themselves very prepared.
 - Interaction with alumni/former students – A significantly ($p=0.039$) greater proportion of deans considered themselves very prepared and a significantly greater proportion of executive associate/associate/assistant deans considered themselves prepared.
 - Interaction with parent university – A significantly ($p=0.050$) greater proportion of deans and executive associate/associate/assistant deans considered themselves prepared or very prepared.

DISCUSSION

The overall response rate of 28.8% should be adequate to provide a reasonable representation of the entire population of academic administrators. As compared to the 2010 study, only half as many deans responded (21 vs. 42). However, considering that the entire population of deans in the current study included only 46 individuals, the 45.7% response rate (21/46) among deans is quite good.

The 2018-2019 Comparative Data Report (CDR) compiled by AAVMC⁴ includes information on gender, race, and ethnic identities for administrators at member institutions. When compared to the respondent population, the current study was found to include similar proportions of individuals who identify as female (39.1% vs. 38.3% in CDR) and URVM (8.7% vs 12.8% in CDR).

As can be discerned from Tables 2.0 and 2.1, several important patterns emerged related to pathways to leadership in academic veterinary medicine:

- Nearly all respondents (94%) held either a DVM/equivalent or PhD (84% held DVM/equivalent and 10% held PhD without DVM).
- About 70% of all respondents held multiple degrees and 72% were specialty board certified.
- All deans held DVM/equivalent (as required by accreditation standards) and in comparison to non-deans, a significantly higher proportion also held other degrees (most often PhD) and specialty board certification.
- Most respondents (85.1%) had participated in leadership development training of some sort, and for 33.0% this included the AAVMC Leadership Academy. Notably, a significantly higher proportion of department chairs had been AAVMC Leadership Academy participants.
- A significantly greater proportion of deans had held leadership positions at other institutions.

Without question, these results indicate that academic leaders in veterinary medicine have substantial training and experience in both academic disciplines and leadership development. What is not apparent from the current study, however, is how heavily each is weighted by search and selection committees.

It is clear that the total weekly time commitment for academic leaders is substantial, well over 50 (often over 60) hours, and noteworthy that no significant differences were detected in this regard across positions or by gender identity. Not surprisingly, however, several significant differences were identified in time allocation when analyzed by current position.

- Deans were found to allocate a significantly greater proportion of their time to fundraising and alumni relations when compared to the other two groups.
- When comparing department chairs and executive associate/associate/assistant deans groups allotment of time, the greatest difference is in research and teaching hospital administration with the mean percentage of time spent by department chairs on research 8.6% higher and the mean percentage of time spent by department chairs on teaching hospital administration 9.1% lower relative to the executive associate/associate/assistant deans.

Even though the time commitment is substantial, overall job satisfaction was found to be remarkably high, with nearly 90% of all survey respondents indicating that they were either satisfied or very satisfied. Several interesting dimensions of job satisfaction were identified:

- Many of the factors with the highest satisfaction ratings tended to center around the core mission of education – teaching, students, academic environment, and faculty.
- Most of the factors with the lowest satisfaction ratings relate to managing the academic “business enterprise” – capital investment (i.e. facilities), budgeting/financial management, and fundraising.
- Without additional information, it is difficult to know if the relative dissatisfaction with research might be related to the individual administrators’ inability to allocate sufficient time to continue their own research programs, whether it might be related to the administrative challenges (funding, facilities, etc.) inherent in sustaining/building successful research programs, or whether it might be related to some other factor. The inability to allocate sufficient time would speak to the myriad of other demands on the administrators (see Table 3), and the administrative challenges perspective would align with the dissatisfaction with managing the academic “business enterprise” mentioned above. Additional research would be helpful.
- Although compensation levels obviously differ by current position, it might be helpful to also conduct additional research to understand more about why a significantly greater proportion of executive associate/associate/assistant deans were dissatisfied.

Collectively, respondents provided a helpful guide for future leaders to use as they design their own leadership development plans. In this regard, the insights that can be drawn from the perceived importance ratings (Table 6), with additional support from the open-ended responses, create a set of “critical success factors” for academic-leaders-in-training:

- Communication topped the list, with 100% of respondents rating the competency as either “important” or “very important”. Of course, being adept at communication is vital to success in the second-highest rated competency – conflict resolution. Conflict resolution and conflict management featured prominently in the open-ended questions identifying current challenges and development needs.
- The importance of knowledge/competency in the broad arena of diversity, equity, and inclusion cannot be overstated, considering the profound societal demographic shifts that have been underway for the past several decades. The greater proportion of deans and executive associate/associate/assistant deans who considered this competency to be important is of note.
- The perception of high importance related to competence with faculty work/life is probably not surprising considering the long workweeks (Table 4) that respondents themselves experience.
- Finance/Budget fell to the middle of the perceived importance scale; however, it is worth noting that it is near the bottom in both preparedness (Table 7) and job satisfaction (Table 5). Results from the open-ended question on leadership development needs indicate that business/budget management received 13 mentions, on par with conflict management. In addition, respondents to the open-ended question related to current challenges mentioned balancing a budget five times and for the 10-year challenge budget was mentioned seven times.
- Overall, fundraising was rated comparatively low. However, it was the lowest competency in the preparedness list (Table 7) and it was rated of significantly higher importance among deans, who spend a significantly greater proportion of their time with this activity as well (Table 3). Fundraising also appeared prominently in the open-ended responses to leadership development needs, ranking third at 11 mentions.
- Knowledge/competency related to accreditation, professional organizations/associations, and public relations were rated as significantly more important to deans and the group of executive associate/associate/assistant deans. This finding is consistent with the fact that these leadership activities are less commonly the responsibilities of department chairs. Of note, the relatively low importance rating of professional organizations/associations suggests that an opportunity exists for these organizations to communicate their value more effectively to academic leaders in veterinary medicine.

- Knowledge and competency related to Operations and Policies of Parent Institution was also an important item for respondents. Additional notes from the open-ended results to leadership development needs align with this finding with 7 mentions of HR training and 6 mentions related to general management, both of which include policy knowledge and operational skills.

Additional research might be beneficial to understand why some seemingly important items were perceived as relatively unimportant by survey respondents. Such information could be helpful in steering individual leaders/potential leaders toward development topics of particular institutional importance.

In the context of examining the respondents' training, level of preparedness, and previous experiences with leadership development programs, several patterns are worth noting to inform leadership program development:

- With DVM/equivalent and specialty board certification so prevalent among leaders in academic veterinary medicine, and with education being the core mission, it is consistent respondents rated their preparedness relatively high regarding clinical care and student relations.
- Having successfully navigated the often complex pathway to an academic leadership position, including academic degrees and specialty certifications, leadership development training, and a variety of previous professional/leadership experiences, it is not surprising that respondents would rate their preparedness high related to time management.
- In looking at where respondents have participated in leadership development activities that they consider to be valuable, campus-specific offerings were by far the most frequently mentioned at 33 mentions. While these on-campus programs were noted to be of value, it is also possible that other factors, such as lack of time or resources to travel, contribute to a higher level of accessibility for such programs. Of note among the open-ended suggestion responses was the desire for more accessible programming and within the immediate challenges open-ended responses were both lack of resources and lack of time which were mentioned 13 times each.
- Because business functions and external relations are seldom the responsibility of faculty, and because most leaders in academic veterinary medicine start their careers in faculty positions, it is not surprising that respondents rated their preparedness lower with regard to fundraising, financial/budget management, and interactions with external entities. The high number of mentions of these business function and external

relations competencies in the open-ended leadership development question responses signals a continuing need to provide development in these areas. Additional research may also be beneficial in identifying when and how to provide these types of development opportunities given that business functions are not built into the typical career development pathway for faculty.

Respondents' consistency throughout the various sections of the questionnaire regarding current and future challenges was remarkable. The faculty/staff recruitment and retention challenges centered primarily on challenges with recruiting and retaining clinical faculty, especially in the context of an increasingly competitive market. Although faculty/staff recruitment and retention achieved top billing in virtually every section, a grouping of factors related to availability of resources, budgetary concerns, and fundraising followed close behind. Somewhat related to these issues, one factor that appeared prominently in the future challenges open-ended response was sustainability, which is also reflected in the high degree of anticipated challenge for Financing Veterinary Education (Table 8). In addition, considerable anxiety was expressed at the institutional level related to factors such as conflict management, administrative burden, inconsistent/ineffective top leaders, and the shifting landscape, attitudes, perceptions, and needs in higher education. At the individual level, respondents voiced concern over a lack of time for personal development, an overriding need to juggle priorities, and the vital importance of self-care in stressful situations.

One potential paradox in these results warrants consideration. When specifically prompted by the words "Diversity and Inclusion", survey respondents indicated a remarkably high relative level of perceived importance (third highest overall). However, in the absence of such specific prompting, the topics of diversity, inclusion, equity, demographics, and culture, appeared only rarely in response to the open-ended questions regarding challenges or critical leadership development needs/opportunities (four or five times in total). This variability in responses between prompted and open-ended questions would benefit from additional research into perceptions around the phrase, "Diversity and Inclusion" to develop a more complete understanding of the meaning of that phrase in this population. It is also important to note the overall lack of diversity in the respondent population, at least with respect to race and ethnicity, in which case the relatively low mentions of diversity and inclusion in an unprompted context may be related to continued unconscious bias within this population. In essence, it raises the question as to whether, in fact, the diversity, equity, and inclusion training among respondents has been so effective that no challenge or need for further training is critical at this point, or whether respondents as a whole just don't "see" the need that perhaps exists.

Finally, a broad review of the information garnered provides a clear picture of leadership development needs and programming opportunities. Based on respondents' expressed wishes, programs related to conflict management would be at the top of the list, followed closely by business/budget management and fundraising. A second tier would include diversity, equity, and inclusion; executive communication; building consensus; general management; HR training; and peer mentoring. Based on the current (2020) societal climate around diversity, equity, and inclusion in conjunction with the continued advocacy for acknowledgement and dismantling of systemic racism and other forms of institutional oppression, it might be expected that this specific item would emerge with a higher priority ranking if the study was to be conducted today, and related programming suggestions would likely include topics on understanding and leveraging privilege. Although it was suggested that the AAVMC Leadership Academy be continued (along with creating some means of alumni engagement), additional factors that should be considered include enhanced access, advanced programming, partnering with other organizations, interprofessional training, and international engagement.

SUMMARY

This study was designed to define career pathways toward leadership positions; characterize leaders' current commitment and allocation of time; assess their career satisfaction; explore the perceived importance and preparedness for key leadership competencies; identify current and anticipated leadership challenges; and ascertain perceived development needs and programming opportunities for current leaders in academic veterinary medicine. The pathways to leadership were found to be quite varied, although DVM/equivalent and/or PhD, multiple academic degrees, and specialty board certification were hallmarks. Despite relatively long work weeks (on average 55+ hours/week) for all leadership positions, career satisfaction was found to be quite high, with nearly 90% of respondents indicating that, overall, they were either satisfied or very satisfied with their job.

All results were analyzed for potential variation along several dimensions of diversity across the administrator population. When significant differences were identified, they were mostly based on respondents' current position (dean vs. executive associate/associate/assistant dean vs. department chair); only a small number of differences (three) were identified based on respondents' gender identity. Unfortunately, representation across ethnic and racial identities was insufficient to support robust statistical analysis, and data weren't collected in this study on other important dimensions of diversity, such as religion, sexual identity, sexual orientation, and disability.

Without question, the greatest current and anticipated future challenges relate to recruitment and retention of faculty/staff, followed by a group of factors that includes sustainability, availability of resources, budgetary concerns, and fundraising. Leadership development opportunities were determined to be greatest in relation to conflict management, business/budget management, and fundraising, followed closely by diversity, equity, and inclusion; executive communication; building consensus; general management; HR training; and peer mentoring.

Results of this study should provide invaluable information for AAVMC and its member institutions to use both in maintaining/strengthening current leadership development programming, and in creating new opportunities based on identified interests and needs. Future studies of administrator career satisfaction and leadership development needs/interests should closely monitor progress in the realms of gender identity and administrative position. In addition, as AAVMC member institutions achieve success in diversity, equity, and inclusion initiatives, future studies should actively consider the possibility of unique interests/needs that might become apparent among groups heretofore under-represented in leadership roles across dimensions of diversity related not only to gender, race, and ethnicity, but to also include religion, gender identity (more broadly defined), sexual orientation, and disability, for example. Considering the reality that it may actually take a while to achieve sufficient representation across these groups to conduct robust quantitative analysis as was completed in the current study, qualitative research methods should be employed in the meantime – the results of which will also no doubt be invaluable to inform and guide the aforementioned diversity, equity, and inclusion initiatives.

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Table 1: Internal Reliability of Survey

Survey Item	Cronbach's Alpha
Demographics	0.75
Information about Current Position	0.68
Information about Training	0.72
Time Spent in Work Activities	0.69
Job Satisfaction	0.84
Importance of Knowledge and Competency	0.69
Level of Preparedness	0.74
Anticipated Challenges	0.79
Overall	0.73

Table 2.0: Overall Demographic, Current Position, and Training Information*

Item	Overall Freq.	Overall %	Current Position p-value
Gender Identity			
Male	56	60.9	0.443
Female	36	39.1	
Ethnicity			
Hispanic	2	2.1	nsd
Non-Hispanic	92	97.9	
Race			
White/Caucasian	84	93.3	nsd
Black/African American	3	3.3	
Asian/Asian American	3	3.3	
Age Group			
35-44	5	5.4	0.781
45-54	28	30.1	
55-64	47	50.5	
65-74	13	14.0	
Current Position			
Dean	21	21.0	
Exec. Associate/Vice Dean	6	6.0	
Associate/Assistant Dean	28	28.0	
Department Chair	42	42.0	
Program Director	1	1.0	
Other	2	2.0	
How Long in Current Position?			
Less than 1 year	8	8.1	0.074
1 to 2 years	20	20.2	
3 to 4 years	21	21.2	
5 to 6 years	13	13.1	
7 to 10 years	17	17.2	
Greater than 10 years	20	20.2	
First Institution Served on Leadership Team?			
Yes	76	76.0	0.002
No	24	24.0	

*nsd=not sufficient data

Table 2.0: Overall Demographic, Current Position, and Training Information (Continued)*

Item	Overall Freq.	Overall %	Current Position p-value
Degree Completed			
DVM (or equivalent)	84	84.0	0.030
only	4	4.0	nsd
+ specialization	10	10.0	0.037
+ other degree(s)	11	11.0	0.900
+ other deg. + spec.	58	58.0	0.017
PhD	61	61.0	0.000
without DVM	10	10.0	0.115
Other Doctoral	6	6.0	0.731
Master's Degree	45	45.0	0.083
Advanced Clinical Training			
Specialty Boarded	72	72.0	0.231
Leadership Development Participant?			
Yes	80	85.1	0.256
No	14	14.9	
AAVMC Leadership Academy Participant?			
Yes	31	33.0	0.037
No	63	67.0	

*nsd=not sufficient data

Table 2.1: Demographic, Current Position, and Training Information by Current Position

Item	Deans (n=21)		Exec. Assoc./Assoc./ Asst. Deans (n=34)		Dept. Chairs (n=42)	
	Freq.	%	Freq.	%	Freq.	%
Gender Identity						
Male	14	66.7	14	51.9	27	65.9
Female	7	33.3	13	48.1	14	34.1
Age Group						
35-44	0	0.0	1	3.6	3	7.1
45-54	6	30.0	11	39.3	11	26.2
55-64	12	60.0	12	42.9	21	50.0
65-74	2	10.0	4	14.3	7	16.7
How Long in Current Position?						
Less than 1 year	3	14.3	2	6.1	2	4.8
1 to 2 years	7	33.3	5	15.2	8	19.0
3 to 4 years	4	19.1	4	12.1	12	28.6
5 to 6 years	0	0.0	7	21.2	6	14.3
7 to 10 years	6	28.6	7	21.2	4	9.5
Greater than 10 years	1	4.8	8	24.2	10	23.8
First Institution Served on Leadership Team?						
Yes	10	47.6	30	88.2	34	81.0
No	11	52.4	4	11.8	8	19.0
Degree Completed						
DVM (or equivalent)	21	100.0	25	73.5	36	85.7
only	1	4.8	2	5.9	1	2.4
+ specialization	0	0.0	2	5.9	8	19.1
+ other degree(s)	2	9.5	3	8.8	5	11.9
+ other deg. + spec.	18	85.7	18	52.9	21	50.0
PhD	19	90.5	13	38.2	27	64.3
without DVM	0	0.0	3	8.8	7	16.7
Other Doctoral	1	4.8	3	8.8	2	4.8
Master's Degree	9	42.9	20	58.8	14	33.3
Advanced Clinical Training						
Specialty Boarded	18	85.7	22	64.7	31	73.8
Leadership Development Participant?						
Yes	20	95.2	22	78.6	36	85.7
No	1	4.8	6	21.4	6	14.3
AAVMC Leadership Academy Participant?						
Yes	4	19.0	7	25.0	20	47.6
No	17	81.0	21	75.0	22	52.4

Table 3: Time Allocation*

Work Activities (by Current Position)	Mean % Time	Range	n>0
Deans (n=20)			
School administration/management ^a	54.8	25-90	20
Teaching ^a	4.9	0-25	12
Research ^a	3.9	0-15	10
Teaching hospital administration ^a	1.7	0-10	5
Clinical care/service ^a	3.5	0-20	5
Fundraising ^a	16.2	0-35	18
Alumni relations ^a	7.0	0-20	17
University service ^a	7.7	0-12	19
Other ^a	0.5	0-10	1
Exec. Associate/Associate/Assistant Deans (n=31)			
School administration/management ^a	56.5	0-100	28
Teaching ^b	13.7	0-55	23
Research ^a	6.6	0-30	18
Teaching hospital administration ^b	10.8	0-90	7
Clinical care/service ^a	4.3	0-50	7
Fundraising ^b	1.5	0-25	7
Alumni relations ^{ab}	1.4	0-10	8
University service ^a	4.7	0-25	19
Other ^a	0.4	0-10	2
Department Chairs (n=42)			
School administration/management ^a	49.2	15-100	42
Teaching ^{ab}	16.9	0-50	40
Research ^a	15.2	0-50	38
Teaching hospital administration ^a	1.7	0-30	8
Clinical care/service ^a	7.2	0-35	21
Fundraising ^b	1.8	0-35	10
Alumni relations ^b	1.1	0-10	11
University service ^a	5.8	0-20	32
Other ^a	1.1	0-20	6
Program Directors/Other (n=3)*	nsd		

*nsd=not sufficient data; Items with different superscripts between Current Position categories were found to be significantly different (p<0.05)

Table 4: Time Commitment*

Current Position	Mean Hours/Week	Range
Deans (n=20)	58.0	40-80
Exec. Associate/Associate/Assistant Deans (n=29)	58.6	47.5-80
Department Chairpersons (n=42)	54.9	30-80

*Note: No significant differences in time commitment were identified based on analysis by either gender identity or current position.

Table 5: Level of Job Satisfaction

Item	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
Overall Job Satisfaction	3 (3.2)	7 (7.5)	37 (39.4)	47 (50.0)
Teaching	2 (2.5)	1 (1.2)	44 (54.3)	34 (42.0)
Community Relations	–	4 (4.6)	66 (75.0)	18 (20.5)
Geographic Location	–	5 (5.4)	37 (39.8)	51 (54.8)
Job Security	1 (1.1)	5 (5.4)	30 (32.3)	57 (61.3)
Students	1 (1.1)	5 (5.6)	41 (46.1)	42 (47.2)
Academic Environment	2 (2.2)	6 (6.5)	55 (59.8)	29 (31.5)
Professional Growth	2 (2.2)	7 (7.5)	33 (35.5)	51 (54.8)
Career Options	1 (1.1)	8 (8.6)	35 (37.6)	48 (52.7)
Faculty	–	9 (9.9)	41 (45.1)	41 (45.1)
Alumni/Former Students	–	9 (10.8)	47 (56.6)	27 (32.5)
Annual Salary and Benefits	2 (2.1)	9 (9.6)	47 (50.0)	36 (38.3)
Staff (not faculty)	1 (1.2)	11 (12.6)	44 (50.6)	31 (35.6)
Administrative/Management Duties	3 (3.2)	14 (14.9)	48 (51.1)	29 (30.9)
Collaboration with other Units	2 (2.3)	14 (15.9)	47 (53.4)	25 (28.4)
Research	1 (1.1)	17 (19.3)	49 (55.7)	21 (23.9)
Fundraising	2 (3.0)	15 (22.7)	32 (48.5)	17 (25.8)
Budget/Financial Management	5 (5.4)	20 (21.5)	46 (49.5)	22 (23.7)
Facilities (research, teaching, clinical)	3 (3.2)	26 (27.7)	45 (47.9)	20 (21.3)

* frequency of response per item (percent of responses per item)

Table 6: Perceived Importance of Specific Knowledge and Competencies*

Item	Not Important	Moderately Important	Important	Very Important
Communication	–	–	5 (5.3)	89 (94.7)
Conflict Resolution	–	2 (2.1)	16 (16.8)	77 (81.1)
Diversity and Inclusion	2 (2.1)	1 (1.1)	34 (36.2)	57 (60.6)
Faculty Work-Life	–	5 (5.3)	41 (43.2)	49 (51.6)
Operations and Policies of Parent Institution	–	9 (9.7)	24 (25.8)	60 (64.5)
Accreditation (if applicable)	1 (1.1)	8 (8.7)	28 (30.4)	55 (59.8)
Finance/Budget	1 (1.1)	10 (10.6)	36 (38.3)	47 (50.0)
Negotiation	3 (3.3)	8 (8.7)	29 (31.5)	52 (56.5)
Teaching	1 (1.2)	11 (13.1)	27 (32.1)	45 (53.6)
Technology	–	18 (19.0)	37 (39.0)	40 (42.1)
Curriculum	1 (1.1)	20 (21.7)	37 (40.2)	34 (37.0)
Professional Organizations/Associations	2 (2.1)	20 (21.1)	49 (51.6)	24 (25.3)
Public Relations	6 (6.6)	20 (22.0)	26 (28.6)	39 (42.9)
Research	3 (3.2)	24 (25.8)	36 (38.7)	30 (32.3)
Clinical	5 (5.8)	22 (25.6)	22 (25.6)	35 (40.7)
Fundraising	10 (11.9)	29 (34.5)	19 (22.6)	26 (31.0)

* frequency of response per item (percent of responses per item)

Table 7: Level of Preparedness for Specific Competencies*

Item	Not Prepared	Somewhat Prepared	Prepared	Very Prepared
Clinical Care (Students)	6 (7.5)	10 (12.5)	39 (48.8)	25 (31.3)
Clinical Care (Faculty Practice)	3 (3.8)	15 (18.8)	36 (45.0)	26 (32.5)
Time Management	3 (3.2)	20 (21.3)	41 (43.6)	30 (31.9)
Student Relations	4 (4.4)	23 (25.0)	45 (48.9)	20 (21.7)
Interaction with Practicing Community	10 (12.2)	17 (20.7)	38 (46.3)	17 (20.7)
Research Programs	4 (4.7)	27 (31.4)	30 (34.9)	25 (29.1)
Curriculum	6 (6.7)	29 (32.2)	28 (31.1)	27 (30.0)
Technology Applications	4 (4.4)	32 (35.6)	35 (38.9)	19 (21.1)
Personnel Management (Faculty)	6 (6.5)	33 (35.9)	32 (34.8)	21 (22.8)
Personnel Management (Staff)	6 (6.4)	35 (37.2)	30 (31.9)	23 (24.5)
Interaction with Other Schools at Parent University	13 (14.0)	34 (36.6)	27 (29.0)	19 (20.4)
Interaction with Alumni/Former Students	11 (12.5)	34 (38.6)	30 (34.1)	13 (14.8)
Interaction with Parent University	11 (11.7)	38 (40.4)	31 (33.0)	14 (14.9)
Financial/Budget Management	19 (20.7)	37 (40.2)	15 (16.3)	21 (22.8)
Fundraising	24 (30.8)	24 (30.8)	17 (21.8)	13 (16.7)

* frequency of response per item (percent of responses per item)

Table 8: Degree of Anticipated Challenge for Specific Issues Over the Next 10 Years*

Item	None	Low	Moderate	High
Faculty Recruitment and Retention	–	1 (1.1)	10 (10.8)	82 (88.2)
Financing Veterinary Education	–	2 (2.2)	8 (8.6)	83 (89.3)
Curriculum Change	–	5 (5.4)	45 (48.4)	43 (46.2)
Sustaining the College/School's Research Mission	–	8 (8.7)	36 (39.1)	48 (52.2)
Access to Veterinary Healthcare	–	22 (24.7)	52 (58.4)	15 (16.9)
Collaboration with Other Health Professions	–	26 (28.0)	44 (47.3)	23 (24.7)
Remaining Valuable to Parent Institution	3 (3.3)	31 (33.7)	28 (30.4)	30 (32.6)
Relationship with Professional Veterinary Associations	–	43 (46.7)	43 (46.7)	6 (6.5)

* frequency of response per item (percent of responses per item)

Table 9: Level of Interest in an AAVMC Leadership Development Experience*

Item	None	Low	Moderate	High
Overall (n=88)	1 (1.1)	12 (13.6)	34 (38.6)	41 (46.6)
Deans (n=17)	—	1 (5.9)	6 (35.3)	10 (58.8)
Exec. Assoc./Assoc./Asst. Deans (n=28)	—	6 (21.4)	14 (50.0)	8 (28.6)
Department Chairs (n=40)	1 (2.5)	5 (12.5)	13 (32.5)	21 (52.5)

* frequency of response per item (percent of responses per item)