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How much is my veterinary degree worth?

To answer this question, let's look at investment costs, lifetime earnings and intangible benefits.

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Source: Getty images. Applicants to veterinary school make a conscious decision to invest time and effort to obtain a doctorate of veterinary medicine. Economists consider this kind of decision an attempt to maximize "utility," or well-being, which includes both measurable and nonmeasurable benefits. Measurable benefits are monetary rewards; nonmeasurable benefits are those that provide happiness not related to money.

In a market economy, the simplest way to compare the measurable benefits of various investment options is to look at what provides the greatest return for each dollar invested. The difference between the investment chosen and the next best opportunity provides an estimate of unmeasurable benefits.

The DVM degree investment

So, the amount of money you as a veterinarian spend to obtain your DVM is an investment. And the investment to become a veterinarian actually contains three parts:

> The total cost of obtaining a veterinary education (tuition and fees, books, supplies, equipment and

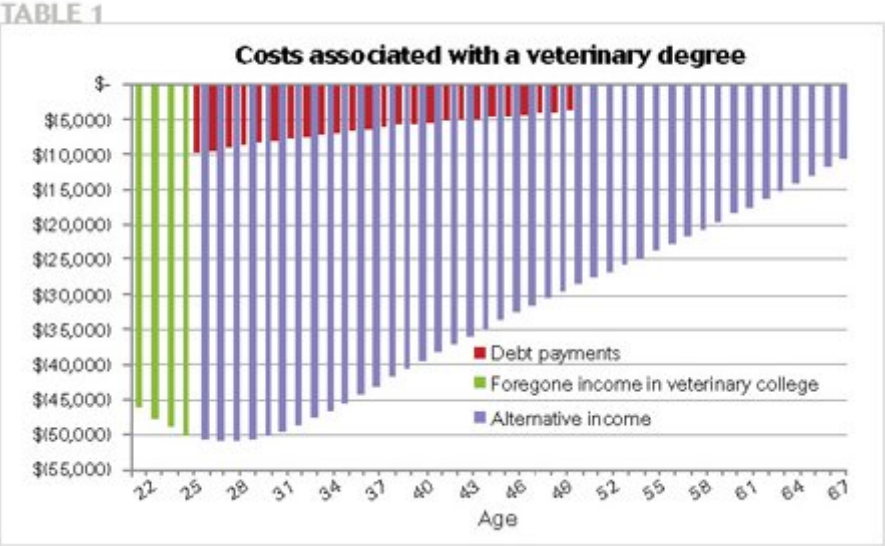
anything else needed to obtain the degree, including the interest accrued on a loan while in school)

> The foregone income you could have obtained with a bachelor's degree, which you skipped while attending veterinary school

> The lifelong earnings you gave up from nonveterinary career paths in order to earn money as a veterinarian (opportunity cost)

Table 1 shows how these investments play out over the career of an average veterinarian today.

TABLE 1

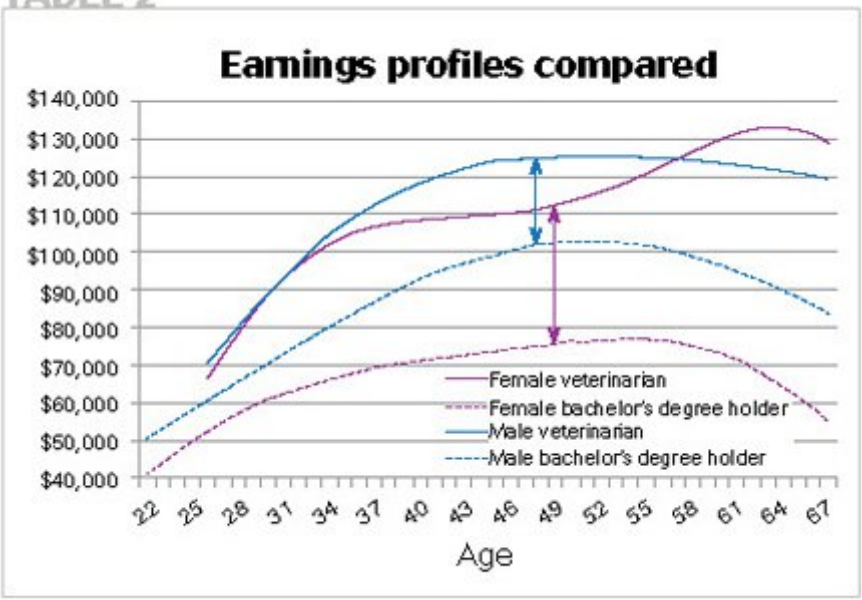


Source: AVMA Economics Division.

Veterinarian lifelong earnings profile

The measurable return on investment in a veterinary education is the total lifelong earnings that can be obtained with a veterinary degree minus all of these costs. This "earnings profile"—the amount of income obtained over a lifetime—is different for men and women, as well as those with a bachelor's degree and those with a DVM (see Table 2). Note that the gap between the earnings profile for a female veterinarian and a female bachelor's degree holder is considerably larger than the same gap for men. This difference means that the opportunity cost of becoming a veterinarian is much higher for men than for women as men give up a much higher bachelor's degree salary.

TABLE 2



Source: AVMA Economics Division.

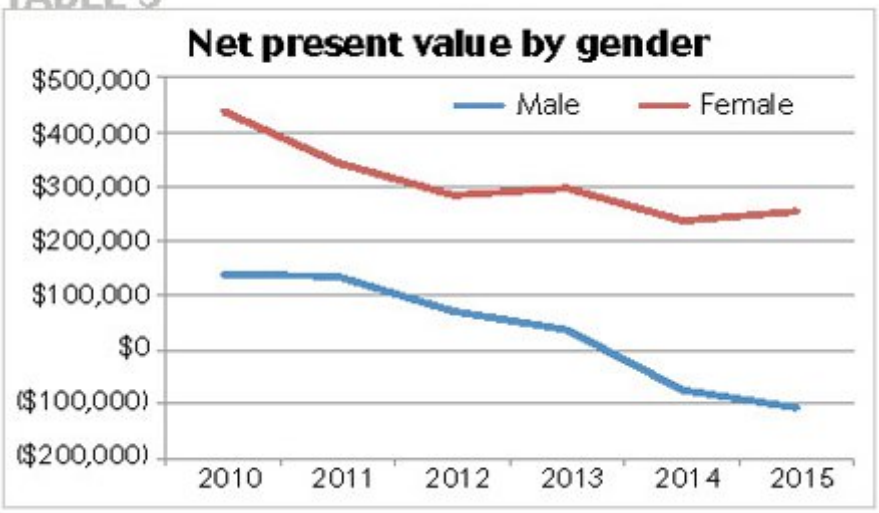
Net present value

The difference between the DVM earnings profile and the total investment over the lifetime of a veterinarian's career is the net value of the DVM degree. The final step in determining the value (in today's dollars) of a veterinary medical degree is to determine the present value of all future earnings minus all the investment costs (direct education expenses, foregone income and opportunity cost)—in other words, the net present value (NPV).

To adjust from the net value to the NPV, we must "discount" or translate future revenues and costs to today's values. Discounting reflects one's time preference of money. That is, how much would I have to offer to pay you a year from now to justify withholding $100 from you today? If you said $110, then you've indicated that next year's dollar has to be discounted by 10 percent to be equal to the value of your dollar today. A more reasonable discount rate is 4 percent: I would need to pay you $104 dollars a year from now to give you the same utility as $100 today.

When both returns and investment are properly adjusted to reflect today's values, the net value of the DVM degree becomes the NPV of the DVM degree. The average NPV of the DVM degree for 2016 graduates was roughly $250,000 (Table 3 shows the difference for women and men), but this varies greatly by location, practice type, hours worked, specialization and other factors.

TABLE 3



Source: AVMA Economics Division

Since men's opportunity cost is larger than women's while their veterinarian earnings profiles are not that different, the NPV of the DVM degree for women is higher than for men. And women break even on their investment (benefits exceed costs) at around age 42, whereas even after age 75, the average male veterinarian still does not break even on his investment.

This means that the average male veterinarian over his lifetime, or at least up to age 75, never earns enough income to offset his initial investment plus income he forewent while in veterinary college.

Of course, there are also nonmeasurable benefits and costs associated with the DVM degree that aren't included in net present value. These include the gratification of daily interaction with animals, the satisfaction of helping animals and animal owners, and the harm to one's health resulting from client conflicts.

But knowing the NPV of the DVM degree enables prospective and current veterinarians to compare alternative careers and career paths just as one compares alternative investment opportunities. This measure can be used, along with nonmeasurable benefits and costs, to help veterinarians make more informed career choices and track the economic performance of the profession over time.

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