

# Enterprise Budgeting and Partial Budgeting for Dog Breeders

Courtney Bir, Nicole J. Olynk Widmar, and Candace C. Croney  
Purdue University

## Introduction

Whether you are new to the business or an established dog breeder thinking of making changes to your operation, a well-considered enterprise budget can provide insights. Enterprise budgets are a projection of all costs and returns for a single enterprise (Kay, Edwards, and Duffy, 2008) — for example, your dog breeding operation. Enterprise budgets can help you calculate potential profits and the break-even price, and can help you organize expenses. If you are considering adding to your operation (e.g., in order to meet certification requirements that garnish a price premium) enterprise budgets can help determine if the changes are profitable.

## Enterprise budgeting

Enterprise budgets for dog breeders can be easily calculated on a per-bitch per-litter basis. Since females can have multiple litters per year and different dog breeds have different average number of puppies per litter, it can be difficult to consider the budget on a yearly basis. By considering the budget on a per-female per-litter basis, you can then estimate your yearly budget. If you expect to have three litters every two years, simply multiply the per-litter budget by 1.5 to get an estimate for yearly expenses and revenue. If you want to consider your budget on a per-puppy basis, simply divide the per-bitch per-litter budget by the number of puppies in the litter.

It is important to include all costs associated with the maintenance of female dogs (even when not pregnant) and male dogs, as well as the rearing of the puppies. If you are breeding multiple females to one male, the costs associated with the care of the male should be divided by all serviced females.

Variable costs are usually presented on a per-animal basis. Fixed costs include such expenses as buildings and can be divided by the number of adult animals housed. Profit is



revenue generated from the sale of puppies minus the costs associated with the breeding and rearing of puppies. The below example template can help you consider costs and revenue.

The break-even price is the price you need to charge per-puppy to have zero profits (you do not make or lose any money). The break-even price per-bitch per-litter can be calculated as:

**Breakeven price (\$/puppy)** = Total cost (per-bitch per litter) ÷ number of puppies in litter

## Partial Budgeting to Evaluate Potential Changes

Reasons for considering changes to your dog breeding business will arise. The question that must be answered: Does a change make financial sense? Let's take, for example, an increased investment in socialization. Perhaps you want to meet the socialization requirements for a new animal welfare certification, or clients are beginning to expect different levels of socialization than you currently provide. As discussed by Young in his 2003 paper, social enrichment is different from socialization, though both have potential positive impacts on dog welfare. Although

<b>Enterprise Budget on a per-Bitch per-Litter basis</b>			
<b>Variable Costs</b>			
<b>Costs Associated with Female</b>			
	<b>Cost per unit</b>	<b>Total number of units</b>	<b>Total Cost Female</b>
Dog food + Water	A (\$/day)	B (days)	A*B
Veterinary care	C (\$/ visit)	D (number of visits)	C*D
Grooming	E (\$/per groom)	F (number of grooms)	E*F
Socialization	G (\$/hour)	H (number of hours)	G*H
Cleaning Labor	I (\$/hour)	J (number of hours)	I*J
Feeding Labor	K (\$/hour)	L (number of hours)	K*L
Stud Fee	M (\$/service)	N (number of attempts)	M*N
Total Female Costs	TCF=(A*B)+(C*D)+(E*F)+(G*H)+(I*J)+(K*L)+(M*N)		
<b>Costs Associated with Male (Note: divide the cost of the male per serviced female)</b>			
	<b>Cost per unit</b>	<b>Total number of units</b>	<b>Total Cost Male</b>
Dog food + Water	AM (\$/day)	BM (days)	AM*BM
Veterinary care	CM (\$/ visit)	DM (number of visits)	CM*DM
Grooming	EM (\$/per groom)	FM (number of grooms)	EM*FM
Socialization	GM (\$/hour)	HM (number of hours)	GM*HM
Cleaning Labor	IM (\$/hour)	JM (number of hours)	IM*JM
Feeding Labor	KM (\$/hour)	LM (number of hours)	KM*LM
Total Male Costs	TCM=(AM*BM)+(CM*DM)+(EM*FM)+(GM*HM)+(IM*JM)+(KM*LM)		
<b>Costs Associated with Puppies</b>			
	<b>Cost per unit</b>	<b>Total number of units</b>	<b>Total Cost Puppies</b>
Dog food + Water	AP (\$/day)	BP (days)	(AP*BP)*number of puppies
Veterinary care	CP (\$/ visit)	DP (number of visits)	(CP*DP)*number of puppies
Grooming	EP (\$/per groom)	FP (number of grooms)	(EP*FP)* number of puppies
Socialization	GP (\$/hour)	HP (number of hours)	(GP*HP)*number of puppies
Cleaning Labor	IP (\$/hour)	JP (number of hours)	(IP*JP)*number of puppies
Feeding Labor	KP (\$/hour)	LP (number of hours)	(KP*LP)*number of puppies
Registration Fee	MP (\$)		MP* number of puppies
Welfare Certification	NP (\$)		NP*number of puppies
	TCP=(AP*BP)+(CP*DP)+(EP*FP)+(GP*HP)+(IP*JP)+(KP*LP)		
<b>Fixed Costs</b>			
	<b>Cost per unit</b>	<b>Total number of units</b>	<b>Total Fixed Costs</b>
Kennels	O (\$/litter)		FC=O
<b>Revenue</b>			
	<b>Revenue per unit</b>	<b>Total number of units</b>	<b>Total Revenue</b>
Puppy Sales	P (\$/puppy)	Q (number of puppies)	P*Q
Outside Male Service	R (\$/service)	S (number of services)	R*S
Total Revenue	TR=(P*Q)+(R*S)		
<b>Profit=TR-TCF-TCM-TCP-FC</b>			

<b>Enterprise Budget on a per-Bitch per-Litter Practice Example Template</b>			
<b>Variable Costs</b>			
<b>Costs Associated with Female</b>			
	Cost per unit	Total number of units	Total Cost Female
Dog food + Water	_____ (\$/day)	_____ (days)	= _____
Veterinary care	_____ (\$/ visit)	_____ (number of visits)	= _____
Grooming	_____ (\$/per groom)	_____ (number of grooms)	= _____
Socialization	_____ (\$/hour)	_____ (number of hours)	= _____
Cleaning Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Feeding Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Stud Fee	_____ (\$/service)	_____ (number of attempts)	= _____
Total Female Costs			<b>TCF= _____</b>
<b>Costs Associated with Male (Note divide the cost of the male per-serviced female)</b>			
	Cost per unit	Total number of units	Total Cost Male
Dog food + Water	_____ (\$/day)	_____ (days)	= _____
Veterinary care	_____ (\$/ visit)	_____ (number of visits)	= _____
Grooming	_____ (\$/per groom)	_____ (number of grooms)	= _____
Socialization	_____ (\$/hour)	_____ (number of hours)	= _____
Cleaning Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Feeding Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Total Male Costs			<b>TCM= _____</b>
<b>Costs Associated with Litter</b>			
	Cost per unit	Total number of units	Total Cost Puppies
Dog food + Water	_____ (\$/day)	_____ (days)	= _____
Veterinary care	_____ (\$/ visit)	_____ (number of visits)	= _____
Grooming	_____ (\$/per groom)	_____ (number of grooms)	= _____
Socialization	_____ (\$/hour)	_____ (number of hours)	= _____
Cleaning Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Feeding Labor	_____ (\$/hour)	_____ (number of hours)	= _____
Registration Fee	_____ (\$)		= _____
Welfare Certification	_____ (\$)		= _____
			<b>TCP= _____</b>
<b>Fixed Costs</b>			
	Cost per unit	Total number of units	Total Fixed Costs
Kennels	_____ (\$/litter)		<b>FC= _____</b>
<b>Revenue</b>			
	Revenue per unit	Total number of units	Total Revenue
Puppy Sales	_____ (\$/puppy)	_____ (number of puppies)	= _____
Outside Male Service	_____ (\$/service)	_____ (number of services)	= _____
Total Revenue			<b>TR= _____</b>
			<b>Profit= _____</b>

## Partial Budget on a Per-Bitch Per-Litter

### Additional costs associated with social enrichment of puppies

Cost per hour	Number of hours	Total Additional Cost per Litter
APB (\$/hour)	BPB (number of hours)	(APB*BPB)*number of puppies

### Additional Returns (If you can get a premium for puppies with social enrichment)

Additional Price per-puppy	Number of Puppies	Total Additional Revenue per-Litter
PPB (\$/puppy)	QPB (number of puppies)	PPB*QPB

**Additional Returns** = Total Additional Revenue per-Litter-Total Additional Cost per-Litter

**New Profit (with change)** = Profit (from enterprise budget)+Additional Returns

additional socialization and/or “play time” may seem like low-cost additions, all associated costs must be considered — such as the cost of labor required for such activities, the premium that might be warranted by a certification, and determining whether the changes will attract additional customers.

The economic effect of any minor potential change can be evaluated using a partial budget (Dalsted and Gutierrez, 1990). In a partial budget you examine additional costs and additional returns for the individual change, all else held constant. This can then be compared to the original (without the change) profit per litter or puppy to determine if the change is feasible. Above, see an example of a partial budget template incorporating social enrichment.

The additional returns for some additions may be a negative number. For example, you may want to consider adding socialization that clients are demanding, but the clients may not be willing to pay more for the additional expenses associated with the socialization. Other possibilities, such as changing food brands, grooming frequency, etc., can be evaluated in the same manner.

## References

- Dalsted, Norman L., and Paul H. Gutierrez. *Partial budgeting*. Colorado State University Cooperative Extension, 1990.
- Kay, R.D., W.M. Edwards, and P.A. Duffy. “Partial budgeting.” *Farm management* (2008): 181-190.
- Young, Robert John. *Environmental enrichment for captive animals*. Blackwell Publishing, 2003.

## About the authors

Courtney Bir is a graduate student and Nicole J. Olynk Widmar is an associate professor in the Department of Agricultural Economics, Purdue University. Candace C. Croney is the director of the Center for Animal Welfare Science and an associate professor of Animal Behavior and Well-being in the Department of Comparative Pathobiology, Purdue University.

Feb. 2017

It is the policy of the Purdue University Cooperative Extension Service that all persons have equal opportunity and access to its educational programs, services, activities, and facilities without regard to race, religion, color, sex, age, national origin or ancestry, marital status, parental status, sexual orientation, disability or status as a veteran. Purdue University is an Affirmative Action institution. This material may be available in alternative formats.