

HORSE COUNCIL BRITISH COLUMBIA



Equine Industry Study



Data collected and compiled 2009/2010

Acknowledgement

This study was developed and managed by the following committee members:

Gord Mackenzie, Industry Vice President, Horse Council British Columbia
Kelly Coughlin, Industry Manager, Horse Council British Columbia
Lisa Laycock, Executive Director, Horse Council British Columbia
Basil Bactawar, Horse Industry Specialist, BC Ministry of Agriculture and Lands
Mark Robbins, Regional Agrologist, BC Ministry of Agriculture and Lands
Amy Suess, consultant

Funding for this project has been provided by Agriculture and Agri-Food Canada through the Canadian Agricultural Adaptation Program (CAAP). In British Columbia, this program is delivered by the Investment Agriculture Foundation of BC.

Agriculture and Agri-Food Canada (AAFC) is committed to working with industry partners. Opinions expressed in this document are those of the authors and not necessarily those of AAFC.

Data compilation and analysis provided in kind by the BC Ministry of Agriculture and Lands.

Additional funding provided by, Capri Insurance and Horse Council British Columbia.



Executive Summary

Horses are a large sector of the agricultural industry and provide substantial economic benefit and employment to the BC economy. The industry numbers at a glance are:

**22,000 households own
95,000 horses, with a capital value of
\$500 million, that live on
13,700 horse farms, using
145,000 acres of farmland, with
\$2.0 Billion in buildings and equipment,**

supporting

**\$740 million in economic activity,
7,200 Full Time Equivalent (FTE) jobs, and providing
\$73 million in direct government tax revenue**

A similar BC Horse Industry Study was conducted in 1998 and provides important information to compare with the results of the 2009 study. The number of people involved in horses and the number of farms housing horses have increased over the last decade (5% and 10% respectively) while the inflation adjusted economic activity, driven by the industry, has declined (19%) over the same period.

The number of horses increased slightly (5%) but the investment in building and facilities to house horses increased (in inflation adjusted dollars) by 120%. The horses, the people involved with horses, the farms housing horses and the investment to support horses all grew over the decade but the economic impact dropped. Having the infrastructure in place suggests the horse industry is resilient, well positioned and ready to quickly expand its economic activity as the economy recovers from the current economic conditions.

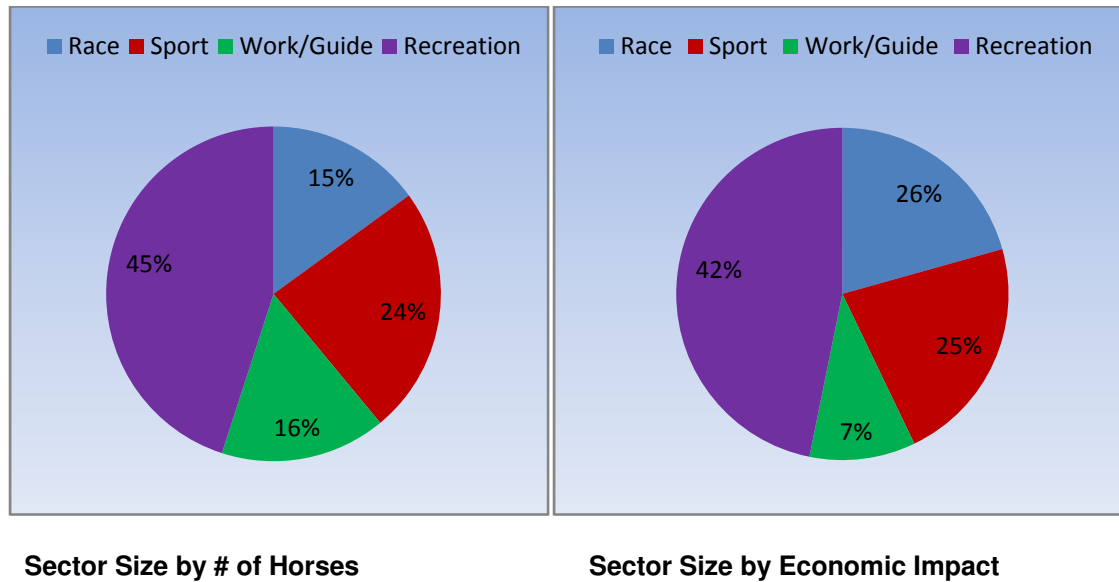
The 2009 survey was distributed primarily through the Horse Council British Columbia (HCBC) membership, Racing sector membership and Rodeo sector via direct mail and an on-line survey tool. Previous surveys have been mailed directly and tagged for each breed and discipline group. Over the last decade HCBC membership has expanded and covers many of the breeds and disciplines it did not reach in the past. It was felt that the HCBC membership and the on-line tool would provide sufficient response from the different sectors and disciplines. While 3770 responses were received they were not received in similar proportion to the size of the different sectors.

The survey results show that the industry, in general, remains positive about the future. Despite the decline in economic activity in 2009, almost 90% of the industry indicates it intends to maintain or increase its involvement in the industry over the next 5 years.

For analysis purposes the horse industry is divided into five sectors: racing, sport, ranch/work, guide and recreation. The sport sector includes households who participate in the three Olympic disciplines jumping, dressage and three day eventing. The sport sector also includes

households who participate in rodeo events, while the recreation sector captures all horses not in the other four sectors. The breakdown of the number of horses and economic activity in the sectors is captured below in Figure 1.

Figure 1. Industry Size and Economic Impact by Sector



Horses continue to be a significant farm activity. Horse farms rank as the fourth largest agriculture commodity in the province when economic activity is compared with farm gate sales of other commodities.

Table of Contents

Executive Summary	2
1.0 Introduction	8
2.0 Industry Structure and Perspectives.....	8
2.1 Structure of the Horse Industry	8
2.2 Horses - Where they live and what they do	10
2.3 Potential for Growth in the Industry.....	9
2.4 Challenges Facing the Horse Industry	10
3.0. Horse Farms – Where do they fit?.....	11
3.1 A Business or a Hobby?	13
3.2 Horses as an Agricultural Product	13
3.2.1 Breeding.....	13
3.2.2 Adding-Value.....	14
3.2.3 Off-Farm Markets	15
3.2.4 End Use	15
4.0. The BC Horse Industry - By the numbers.....	16
4.1 Industry Size – Number of Horses	16
4.2 Economic Contribution to BC.....	18
4.3 Employment and Jobs	23
4.4 Characteristics of Horse Farm Properties	25
4.5 Direct Provincial and Federal Government Tax Revenues from Operating Expenditures in the Horse Industry.....	26
5.0 BC Horse Industry – Horse people and what they do.....	27
5.1 Horse Owners – Demographics.....	27
5.2 Riding for Pleasure	28
5.3 Volunteer Activities of Horse Owners	29
5.4 Guest Ranch Visits and Camping with Horses	30
5.5 Horse Related Activities Out of Province	31
5.6 Buying a Horse	31
5.7 Risk Factors for Horse Health.....	31
6.0 Horse Farm Management	33
6.1 Manure Handling	33
6.2 Farm Management Practices.....	34
6.2.1 Pasture Management Practices	35
6.2.2 Horse Farms that Board Other Horses.....	35
6.2.3 Horse Farms that Produce Other Agricultural Products	35
6.2.4 Farm Financial Management.....	36

7.0 Methodology	36
7.1 Limitations of the Study	37
7.2 Survey Structure and the Quality of Survey Responses	37
7.2.1 Quality of Responses	37
7.3 Estimate of Specific Numbers used in the Report	38
7.3.1 Estimate of Recreational Horses	38
7.3.2 Estimate of Sport Horse Training & Instruction Wages	38
7.3.3 Estimate of Incremental Boarding Cost	39
7.3.4 Estimate of Race Horse Training Expense	39
8.0 Economic Impact of the Horse Racing Sector in BC	40
8.1 Introduction	40
8.2 Purse Supplements from Casino Revenue	43
8.3 <i>Overview</i> Detailed Findings of the 2009 Economic Impact of the Horse Racing Sector	44
8.4 Industry Trends	44
8.4 The Future	47
8.5 Interpretation	49
8.6 Detailed Economic Analysis Calculations	50
8.6.1 Jobs and Expenditures Related to Training Race Horses	50
8.6.2 Expenditures Related to Maintaining Breeding Stock	52
8.6.3 Jobs and Expenditures Related to Race Track Operations	52
8.6.4 Tax Revenues from Race Horse Sector	53
8.6.5 Summary of Economic Impact from the Race Horse Sector	54

List of Figures

Figure 1. Industry Size and Economic Impact by Sector	3
Figure 2. Horse Industry Structure	9
Figure 3. Potential for Growth in the Industry, 1994-2009	10
Figure 4. Potential for Growth by Sector, 2009	10
Figure 5. Constraints to Growth in the Industry in 1994, 1998 and 2009	11
Figure 6. Rural Properties with Horses	12
Figure 7. Horse Industry Size Relative to other Livestock Sectors (\$million)	12
Figure 8. Horses Reported on Census Farms (1000 Horses)	16
Figure 9. General Trends in the BC Horse Population	17
Figure 10. Trend in Horse Numbers by Sector	18
Figure 11. Trend in the Economic Impact of the Horse Industry in Inflation Adjusted (2009) Dollars	20
Figure 12. Trend in Economic Contribution by Sector	20
Figure 13. Trends in Capital Investment on Horse Farms (\$2009)	22
Figure 14. Trends in Jobs in Different Sectors of the Industry	25
Figure 15. Trend in Pleasure Riding by Sector	28
Figure 16. Distribution of Volunteer Activities in the Horse Industry	30

Figure 17. Owner Ranking of Health and Welfare to Horses.....	32
Figure 18. Proportion of Horse Farms That Spread Manure	33
Figure 19. Proportion of Horse Farms that Compost and Sell Manure.....	33
Figure 20. Proportion of Horse Farms that use Commercial Manure Removal	34
Figure 21. Proportion of Horse Farms with Protected Manure Storage.....	34
Figure 22. Trend in Horse Farms that Reported Boarding Horses	35
Figure 23. Trend in Horse Farms that Grow Other Agricultural Products	36
Figure 24. Structure of the Horse Racing Sector.....	42
Figure 25. Inflation Adjusted Trends in the Economic Impact of Horse Racing(\$2009)44	
Figure 26. Trend in Foal Production, Racing Days and Handle – Thoroughbreds using 1990 as the base year for comparison	45
Figure 27. Trends in Jobs in the Race Horse Sector.....	46
Figure 28. Trends in Expenditures in the Race Horse Sector	46
Figure 29. Distribution of Jobs and Expenditures in the Horse Racing Sector	47
Figure 30. Constraints to Growth in the Racing Sector	49
Figure 31. Trends in the Annual Cost of Maintaining and Training Race Horses in Inflation Adjusted \$2009.....	48
Figure 32. Annual Maintenance Cost as a Multiple of Lowest Purse Value at Hastings Park.....	49

List of Tables

Table 1. Breeding Activity on Horse Farms in the Sport and Recreation Sectors	14
Table 2. Number of Horses by Sector	17
Table 3. Number of Horses by Region	18
Table 4. Total Economic Impact (\$millions).....	19
Table 5. Operating Expenses on Horse Farm Properties.....	20
Table 6. Annual Maintenance Costs on a Per Horse Basis.....	21
Table 7. Capital Investment per Horse Farm and per Sector	22
Table 8. Employment Related to Maintaining Horses	23
Table 9. Employment Related to Training Horses/Riders.....	23
Table 10. Employment in Support Services	24
Table 11. Employment Summary	24
Table 12. Characteristics of Horse Farm Properties.....	25
Table 13. Direct Government Tax Revenues (from operational expenditures in the Horse Industry) (\$million)	27
Table 14. Horse Owner Demographics Compared to the Provincial Average.....	27
Table 15. Horse Riding Activities	28
Table 16. Estimate of Volunteer Hours Provided by Horse Owners.....	30
Table 17. Households that have Visited a Guest Ranch or Camped with Horses.....	30
Table 18. Households that have Used Out of Province Activities and Services	31
Table 19. Methods for Seeking out and Purchasing a Horse - By sector	31
Table 20. Estimate of Census Farms by Sector	38
Table 21. Estimate of Sport/Rec Training Wages	38
Table 22. Incremental Boarding Cost.....	39
Table 23. Incremental Race Horse Training Expense	39
Table 24. Intentions of Race Horse Owners over the Next Five Years	47
Table 25. Daily Cost of Maintaining a Race Horse	50
Table 26. Expenditures Related to Care and Training at Race Tracks and Farm Training Centers.....	50

Table 27. Jobs Related to Care and Training at Race Tracks.....	51
Table 28. Jobs and Expenditures Related to Maintaining Breeding Stock	52
Table 29. Jobs and Expenditures Related to Race Track Operations	52
Table 30. Tax Revenues from Race Horse Sector	53
Table 31. Summary of Economic Impact of Race Horse Sector	54

1.0 Introduction

This study is the fourth in a series of reports on the horse industry in BC. The information used in the report came from an industry wide survey that was distributed by Horse Council British Columbia in 2009. The surveys for each report had a similar set of questions which enables comparisons between reports. The four reports span a 20 year period and provide trend information that tracks change in the industry over time.

It is very important to note that the last survey was conducted during the midpoint of one of the deepest recessions in recent history. Sport, race and recreational horses are a lifestyle choice and as such involvement in the sectors is very responsive to the economic conditions of the day.

2.0 Industry Structure and Perspectives

2.1 Structure of the Horse Industry

Horses are used for a variety of sports, in farming, as work animals, for therapy, recreation and tourism. Breeding has evolved over the years to allow the diverse use of horses for any number of activities within these sectors. This in part is what has made the horse such a valuable partner for humans throughout history. It also makes the horse industry a challenge to measure and quantify.

Horses have a wide variety of uses in sport and work. Some examples of horse sports include jumping, three-day eventing, dressage, and polo. Examples of traditional working roles that have become sports include rodeo, cutting, roping, reining, cattle penning, competitive driving, and endurance riding. Current work roles include selective forestry, ranch work and guide/packing.

For this study the industry was divided into five sectors, racing, sport, ranch/work, guide and recreation. The use and expenditure characteristics of each sector are different. To get an accurate estimate of the industry size and economic impact, each sector was analyzed separately and then combined to create an estimate of the industry as a whole.

The sectors are defined as follows:

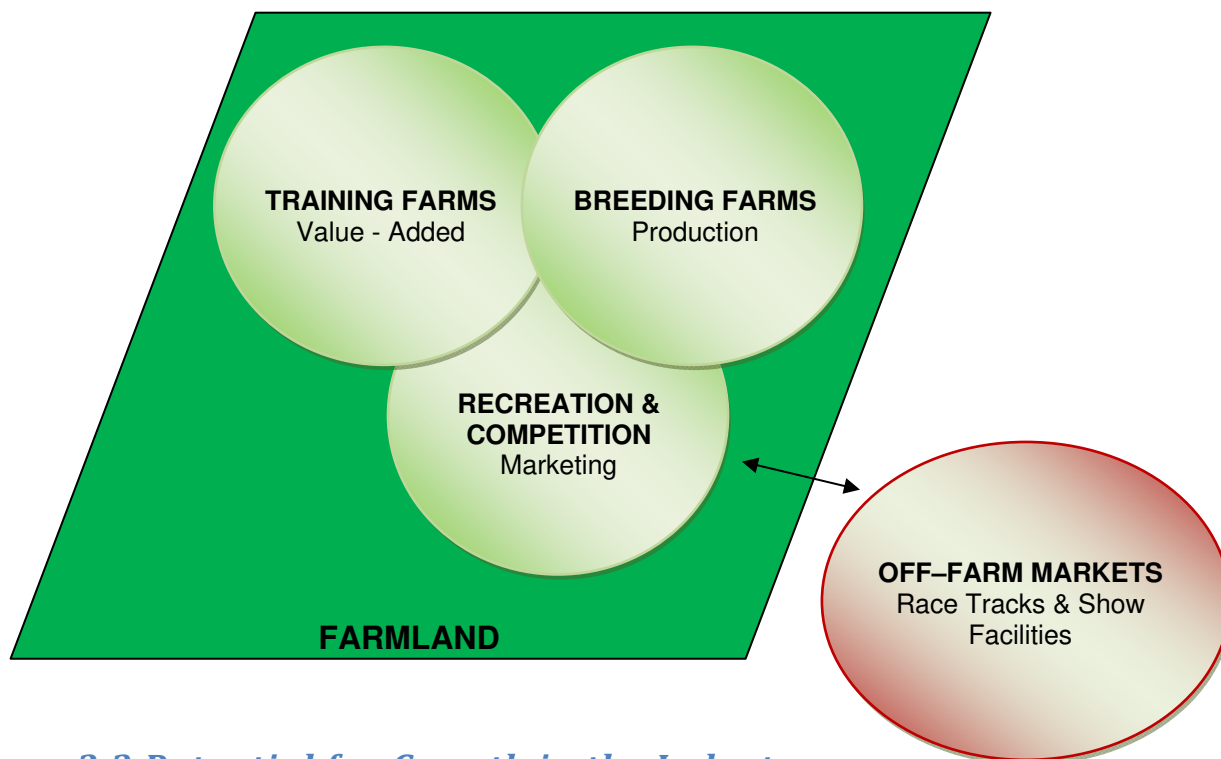
- **Race:** horses and owners involved in racing or horses as part of a breeding farm operation producing race horses
- **Sport:** horses and owners involved in the Olympic equestrian sports (jumping, dressage, three-day eventing) and horses and owners involved in rodeo and reining events
- **Ranch/Work:** horses used for work on ranches and in forestry
- **Guide:** horses involved in guide outfitting businesses
- **Recreation:** all horses not included in the categories above

2.2 Horses - Where they live and what they do

Horses, for the most part, live on rural properties, many of which are working farms and many operated as horse farm business. Unlike most farm products that are sold for consumption off the farm, many of the horse activities that contribute economically to the industry, such as training and showing, also take place on farms.

Horses may be produced, marketed and utilized, all on farms. Some farms may just breed, others may breed, train and board, and others may use horses to diversify more traditional farm production. Figure 2 attempts to demonstrate this overlapping relationship between the horse industry activities. Breeding farms are the primary production part of the industry. Training adds value to the product and the recreation and competition sectors are the market for the product. Off-farm markets include race tracks and showing/competition facilities.

Figure 2. Horse Industry Structure

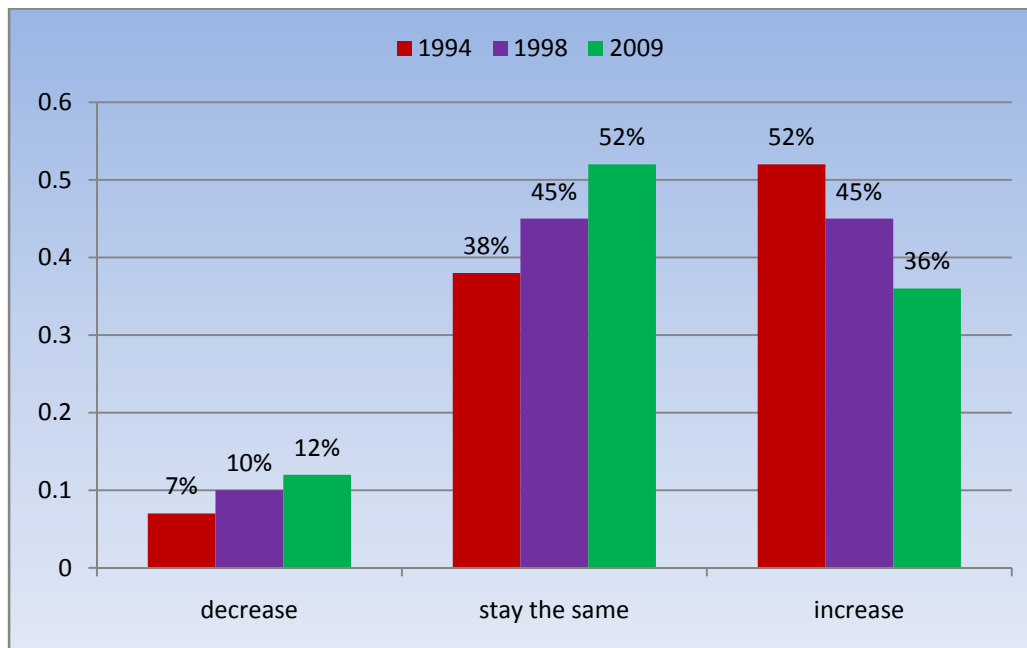


2.3 Potential for Growth in the Industry

The horse industry experienced real growth¹ in the 1990's. In the last decade the industry showed modest growth in numbers of participants but a decline in economic activity. Industry intentions confirm a move to a stable industry with modest growth. Over the last 15 years the number of horse owners who indicated they will increase their involvement over the next five years decreased and the number planning to remain the same increased. The proportion planning to decrease their involvement increased slightly but at 12% there are three owners planning to increase involvement compared to every owner that is intending to decrease involvement.

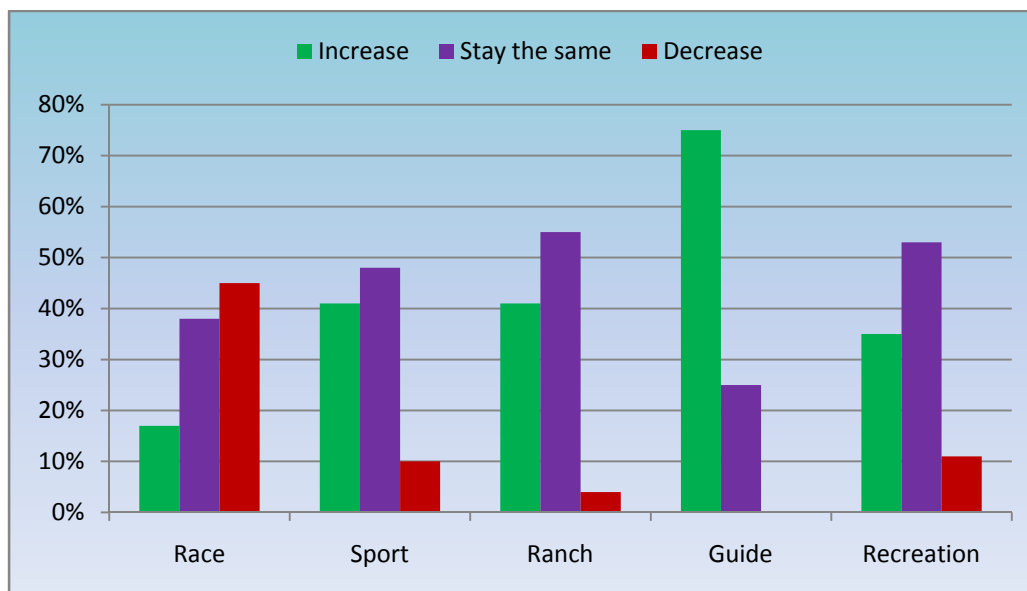
¹ Means inflation adjusted

Figure 3. Potential for Growth in the Industry, 1994-2009



Optimism in the industry varies by sector. Racing is the least optimistic with over 40% planning to decrease their involvement in the next five years. Only 10% of owners in the sport and recreation sector plan to reduce involvement over the next five years.

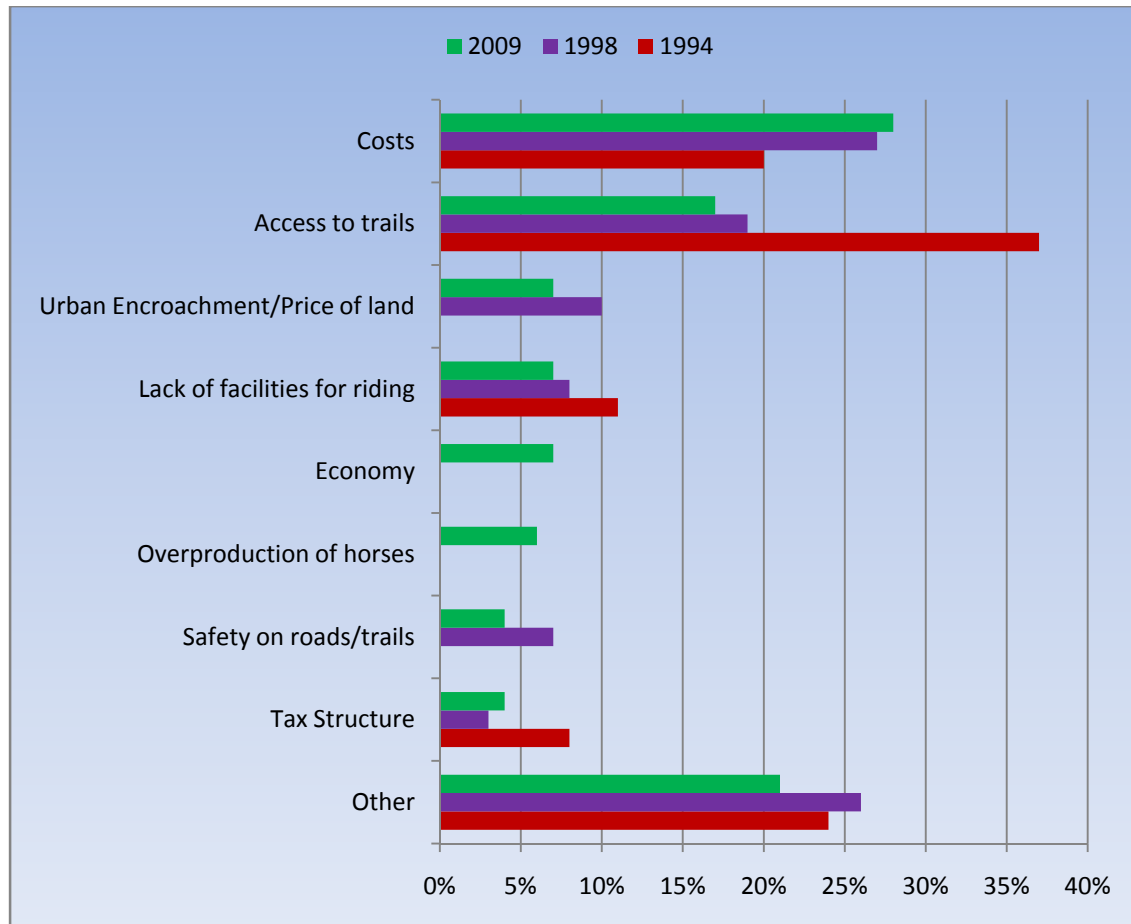
Figure 4. Potential for Growth by Sector, 2009



2.4 Challenges Facing the Horse Industry

Survey respondents were asked to identify constraints that could limit the growth of the horse industry. Responses varied widely and certain issues appear to be specific to a region or to a sector. Further analysis is needed to determine what region or sector specific issues are restricting growth. Overall there were some common themes that will limit the expansion of the horse industry. Figure 5 displays the common responses to the question “*What problems or concerns could limit expansion in the horse industry?*”

Figure 5. Constraints to Growth in the Industry in 1994, 1998 and 2009



Over time and expectedly in the current economic climate the concern for costs has increased. The concern for access to safe riding areas and facilities and safety in general has decreased. A review of respondent’s comments indicates horse and rider safety on roadways along with continued access to public and private lands for recreational riding remains a priority. Other priority issues for horse owners include increased access to educational programs that encompass general horse care, handling and training across all disciplines and skill levels. Comments emphasized the need for trained and knowledgeable facility managers and skilled labourers responsible for the day to day aspect of a horses care.

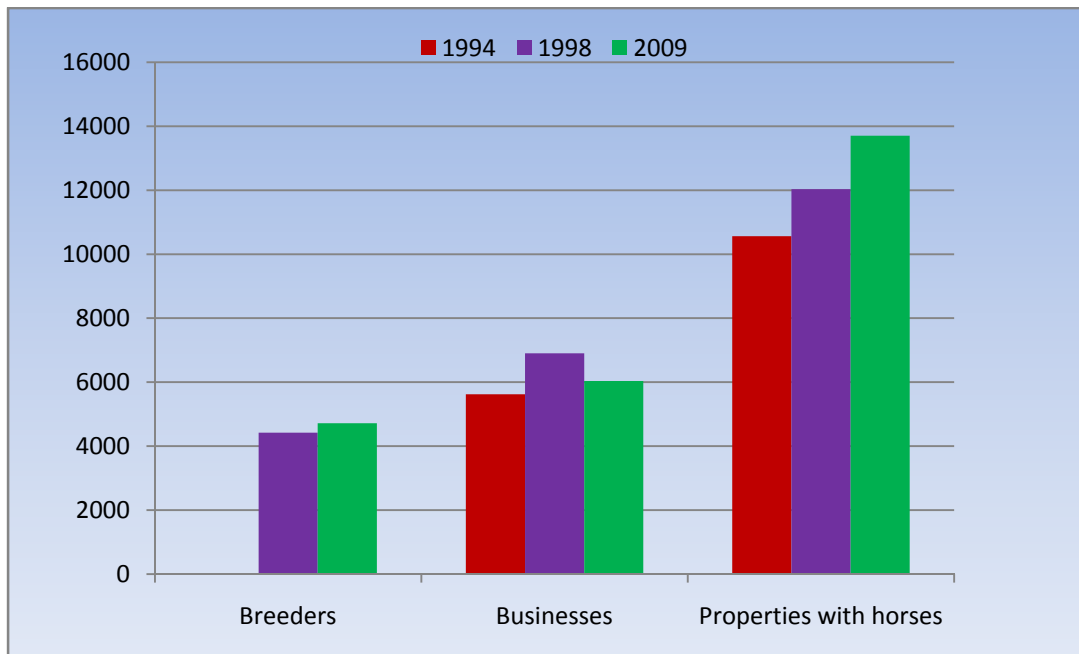
3.0. Horse Farms – Where do they fit?

There are a range of opinions on how to classify horse farms in the context of BC agriculture. The 2009 Horse Industry Survey indicates that:

- 13,659 properties in BC have horses
- 59% are farm businesses (classified farmland, file farm income tax or both)
- 38% (4950) horse properties breed horses
- 31% (4250) horse properties produce other agricultural products
- 18% (2400) hire outside labour to maintain their horses

Properties with horses have grown slowly but steadily over the last 15 years. Properties with horses as a business declined slightly in 2009. Figure 6 compares results of the 1994 and 1998 survey with the 2009 survey.

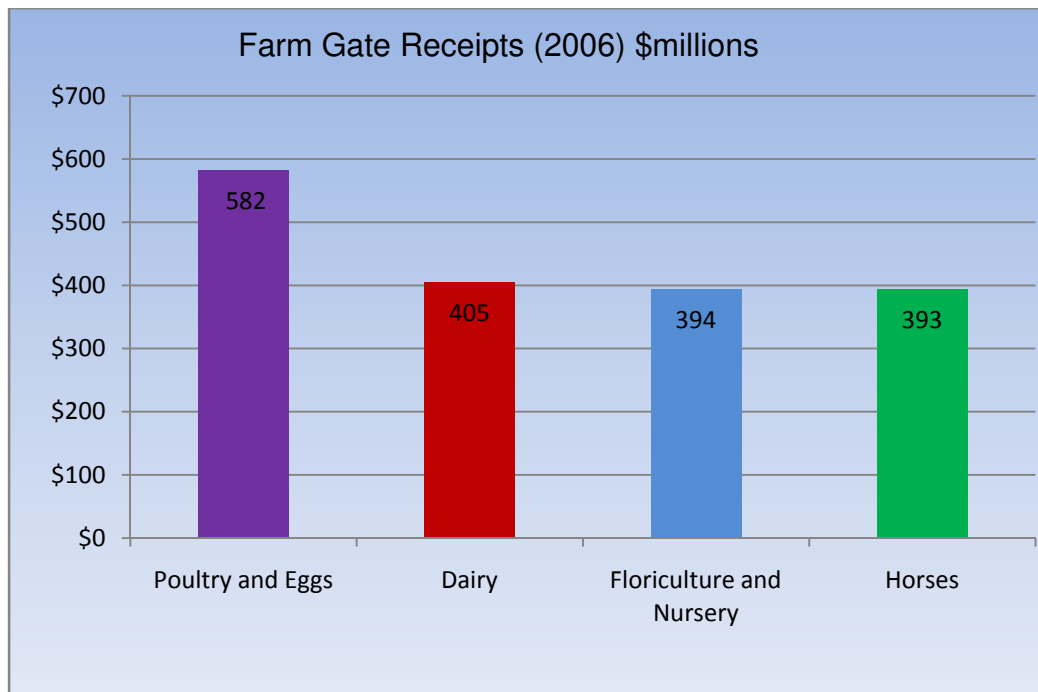
Figure 6. Rural Properties with Horses



Horses are a significant farming business with approximately \$340 million) of direct economic activity on farms. This activity is similar to what the agriculture industry terms ‘farm gate sales’ and would rank the horse industry fourth in BC as an agricultural commodity.

Figure 7. Horse Industry Size Relative to other Livestock Sectors (\$million)²

² Figure 7 compares Farm Gate Receipts of the other 3 commodities with primary operating expenditures of the BC horse industry



The Statistics Canada Census of Agriculture reports the number of farms identified by sector. In both 2001 and 2006, horse farms were the second most common livestock farm behind cattle farms and ranches in BC.

3.1 A Business or a Hobby?

For the purposes of this study, to be considered a horse business, horse farms need to meet one of the following criteria:

Farm Land Classification

- A threshold level of sales of horses bred or value-added depending on the size of the farm

Farm Income Tax Return

- Horse businesses which have a reasonable expectation of profit involving:
 - Raising and exhibiting horses, or
 - Trading in or maintaining race horses

3.2 Horses as an Agricultural Product

3.2.1 Breeding

In BC, there are approximately 95,000 horses and the number imported and exported is relatively small. Given this, a rough estimate of the value of production of horses in BC would be 10,000 horses/year (10% of the total horse population in BC) times an average yearling value of \$3000 for a total of **\$30 million/year in primary agricultural production.**

It is no surprise that the interior of the province, with its abundance of grazing land and dry conditions, is a popular production area. Due to the proximity to markets the south coastal region also has a lot of breeding activity, despite the higher land cost, feed cost and increased

requirements for buildings and manure handling facilities. Horses are also produced under wild/range conditions in the Peace River area.

Horse breeding farms are typically small (under 10 mares) and utilize medium sized properties (11 acre median). These farms invest more in buildings and equipment are more likely to qualify for farm class (67% vs. 42%) and are more likely to file farm business income tax statements (59% vs. 34%) than the average property with horses.

Respondents to the survey indicated that in the sport and recreation sector there are approximately 2400 farms breeding horses and 900 that have stallions. Breeding farms have three mares on average and two thirds of the farms with stallions have only one stallion. One third of the stallion owners offered some form of artificial insemination. In general terms the sport sector utilized AI and transported semen more than the recreation sector.

Table 1 summarizes the breeding activity indicated by respondents in the sport and recreation sector.

Table 1. Breeding Activity on Horse Farms in the Sport and Recreation Sectors³

Breeding Activity	Sport	Recreation	Total
Farms with mares	695	1706	2401
Average mares/farm	3.7	3.0	
Farms with stallions	280	650	930
% with 1 stallion	64%	65%	
% offer live cover	57%	65%	
% offer fresh semen	34%	26%	
% offer frozen semen	20%	11%	
% offer AI on farm	27%	17%	
% offer AI shipped locally	30%	26%	
%offer AI out of province	25%	18%	
% offer AI internationally	20%	12%	

3.2.2 Adding-Value

Adding value to horses is considered primary agriculture production by the BC Assessment Authority. Revenues from adding value to horses can be used to achieve the annual threshold for farmland classification.

Different types of horses are marketed in different ways. Racehorses are often sold as yearlings (approximately 18 months old). Racehorse breeders are the only group with regular auction markets for their horses. Other breeds and disciplines primarily are purchased through online websites (57%), printed equine publications (49%), directly from breeders and through industry contacts⁴.

Horses produced primarily as sport horses are normally broken and trained to a starting level before being sold. The sale of a sport horse usually happens at four or five years of age. Specific

³ The racing sectors have very limited AI and the number of breeding farms is better estimated from the foals registered each year – see racing section for more details. There were not sufficient responses from the guide/work sectors to analyse their breeding activity.

⁴ The percentages indicate the percent of respondents indicating they use that mechanism when buying or selling their horses.

breeds like Quarter Horses, Appaloosas and Arabians may be sold as yearlings or after some initial training.

Because horses are used in a variety of ways, their value can change by becoming better in one specific use or by changing uses. For example a horse bred to race may be sold as a yearling for \$5,000 and then compete as a racehorse at a value of \$10,000. When retired from racing the horse may be sold for \$2,000 as a show horse prospect, trained and resold as a competitive show horse for \$15,000.

Value can be added to horses by:

- growing them to maturity
- demonstrating their traits as superior animals in their breed (breed shows and performance trials)
- improving their skills in a specific work or sport discipline (training them to jump higher, run faster, etc.)

3.2.3 Off-Farm Markets

Off-farm markets for horses are primarily race horses at race tracks or show horses at show facilities or training facilities outside the farm area. In most cases horses have a home base on farmland and stay a limited time at the off-farm facility. Race horses can be away from the farm for several months and sport horses generally just for a few weeks.

3.2.4 End Use

When a horse's useful life is over, it will be humanely destroyed and most often disposed of by a local rendering plant. The economic impact of these end uses was not included in this report. Some responses to the 2009 horse industry survey indicate that in BC there is a lack of local slaughter and rendering facilities resulting in some horse owners having little options when disposing of horses. Disposal and euthanasia are a growing concern for many BC owners and proper disposal methods and facilities will need to be developed and available in the future.

4.0. The BC Horse Industry - By the numbers

Detailed Results of the 2009 Horse Industry Survey

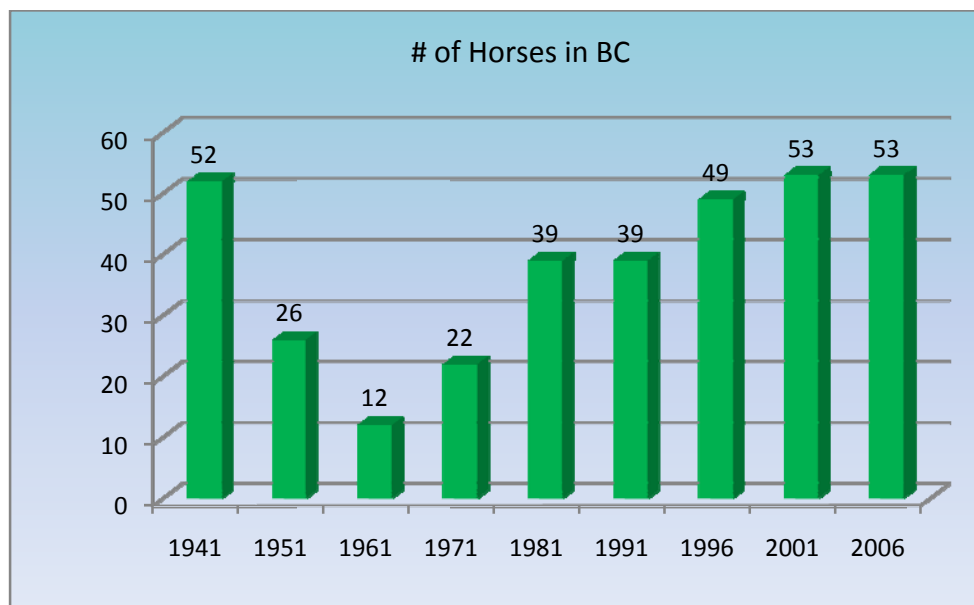
Major Findings

- **95,000 Horses on 13,659 Horse Farm Properties**
- **36,000 Horse Owners in 22,000 Households**, supporting
- **7,200 FTE jobs**
- **\$740 m Annual Economic impact**, and
- **\$73 million in direct taxes to government**

4.1 Industry Size – Number of Horses

In 2001 the number of horses reported on farms by Statistics Canada reached the previous high reported in 1941. The population of horses on farms decreased in the post second world war period as farm work horses were replaced by tractors. Horse numbers began to increase in the late 1960s as use of horses for sport and recreation became more popular. Figure 8 shows the number of horses in BC as reported by Statistics Canada from 1941 to 2006.

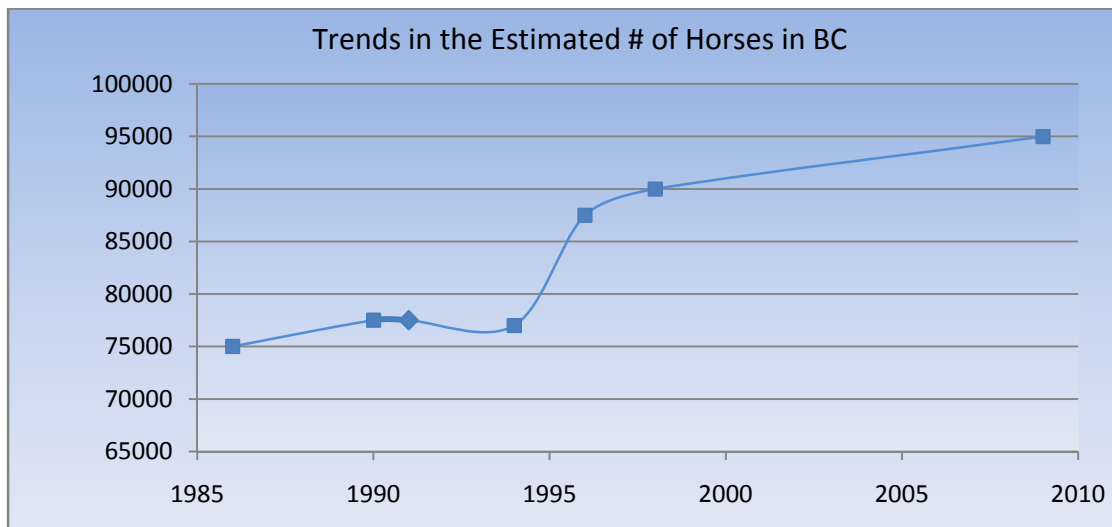
Figure 8. Horses Reported on Census Farms (1000 Horses) ⁵



Many of the horses on farmland and at off-farm markets are not captured by the Census of Agriculture. Estimation of the total population of horses in BC suggests that the Census of Agriculture captures a little over half of the total horse population. The survey estimates that there were approximately 95,000 horses in the province of BC in 2009. The trend in horse population over the last 20 years is shown below in Figure 9.

⁵ The Census of Agriculture surveys all rural properties that the census taker views as farms. This does not include all properties with horses. The 2009 BC Horse Industry survey, previous surveys in BC and surveys in other provinces indicate the Census of Agriculture capture a little over half the horses in the province.

Figure 9. General Trends in the BC Horse Population



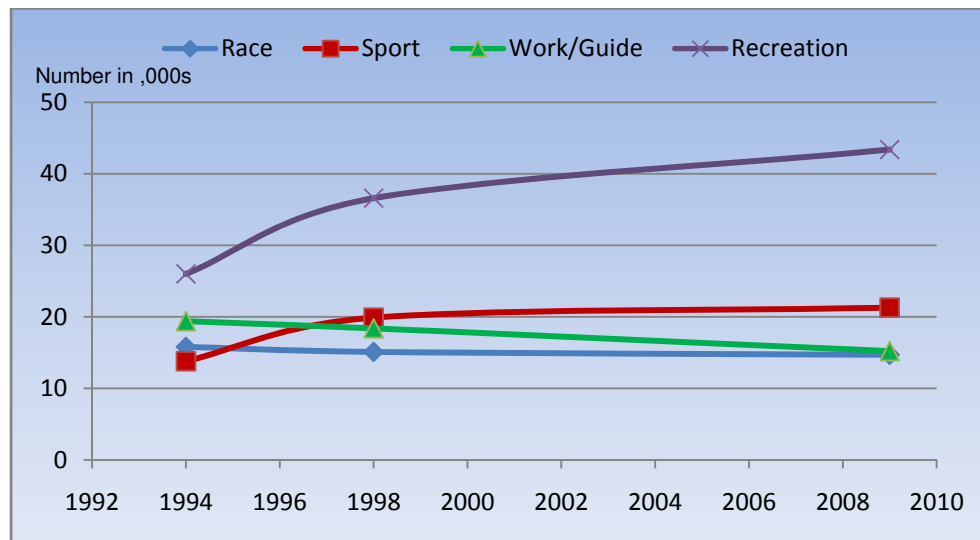
The graph shows that the strong growth in horse numbers in the 1990's has leveled off over the last decade.

The 2009 Horse Industry Study estimates the total horses in BC are distributed between the five sectors as follows.

Table 2. Number of Horses by Sector

Horses/Sector	#			Avg #	
	Households	%farm	#farms	Horses/Household	Total # Horses
Race	1885	46	867	7.8	14703
Sport	3080	34	1047	7.3	22327
Guide	202	75	152	13.0	2626
Ranch	1408	100	1408	8.9	12531
Recreation	15263	21	3205	2.8	42738
Total	21838	24	6679	4.3	94925

Figure 10. Trend in Horse Numbers by Sector



In general terms the race sector and the work/guide sectors have shown a small decline in numbers while the sport and recreation sectors have grown. The recreation sector has continually grown through the last decade and its growth has offset the loss of horses in the ranch and race sectors.

Table 3 provides a very general distribution of horses throughout the province. The distribution is based on census data and the distribution of Horse Council members throughout the province.

Table 3. Number of Horses by Region

Region	Estimated # of Horses			
	# of Horses 2006 Census	Distribution of Horse Council Members	Estimated distribution of non-census horses 2009	Estimated Distribution of Horses in B.C. 2009 ⁶
Cariboo	8183	.085	3543	11700
Vancouver Island	3834	.240	10003	13800
Kootenay's Lower Mainland	3833	.052	2167	6000
Okanagan	9331	.367	15296	24600
Bulkley	8272	.151	6294	14600
Peace	3768	.044	1834	5600
Thompson	10292	.040	1667	12,000
Total	5733	.021	875	6600
Total	53,246	1.00	41,679	94,900

4.2 Economic Contribution to BC

⁶ Rounded to the nearest 100

Economic contribution (impact) as used in this report can best be described as the total expenditures related to the existence of horses.

Expenditures are broken down into capital expenditures and operating expenditures. Capital expenditures include all purchases of equipment, buildings and horses. Land has not been included in capital expenditures as it is difficult to separate out which part of land on mixed farms is used for horses, and because the price of land varies so much across the province that any generalizations would have little value. Direct operating expenditures include all expenditures related to the ownership of horses. This includes maintaining, training and exhibiting/working horses.

Operating expenditures stimulate other expenditures. For example, when a horse owner pays a vet bill for medicine and services, the vet will use that money to make other purchases, and so on. These secondary expenditures are estimated as a proportion of the direct operational expenditures. Wages are typically spent quickly so in general the more labour intensive an industry, the higher the secondary expenditures. Other studies of the horse industry (primarily the racing sector) have estimated secondary expenditures at from 1 to 1.5 the direct operating expenditures. Considering this, secondary expenditures were estimated by using a conservative multiplier of 1 for the more labour intensive racing and sport sectors and .75 and .5 for the recreational and work sectors respectively.

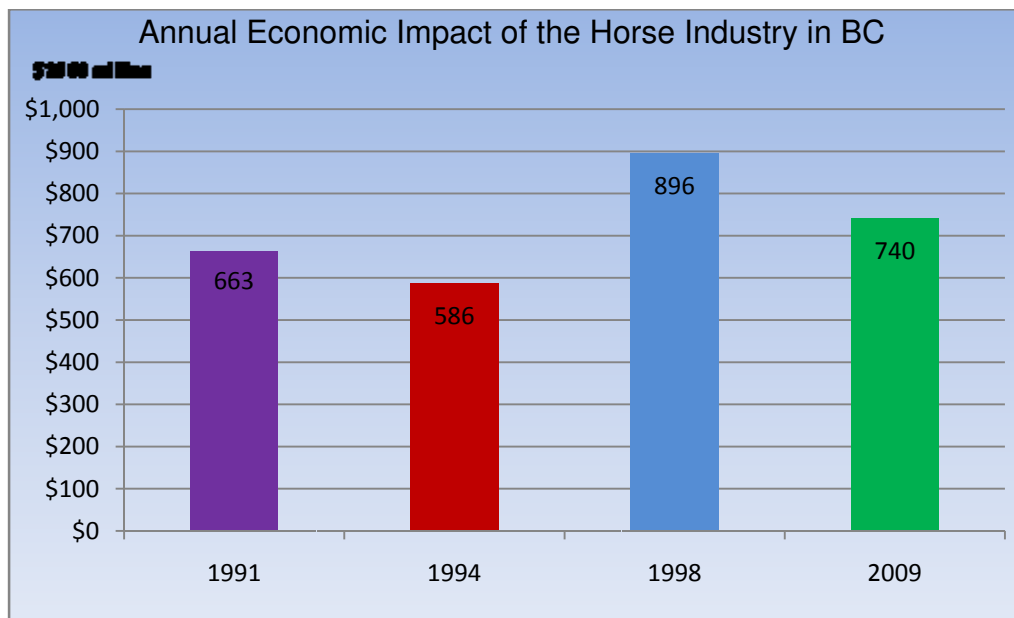
Table 4 is a summary of the economic contribution of the horse industry using the operating expenditures reported in the survey and the multipliers discussed above. A more detailed analysis of the racing sector is included in Section 8. Table 5 describes the operating expenditures on horse farm properties by sector, Table 6 describes the operating expenditures per horse and Table 7 summarizes the capital investment in the industry.

Table 4. Total Economic Impact (\$millions)⁷

Business	Operating Expenditures	(Multiplier)	Secondary Expenditures	Taxes	Total Economic Impact
Race Total	93.5	(x1)	93.5	4.3	191.3
Sport	90.4	(x1)	90.4	3.92	184.72
Work/Guide	33.1	(x.50)	16.5	.72	50.32
Recreational	175.9	(x.75)	131.9	5.72	313.52
Total	392.9		332.3	14.7	739.9

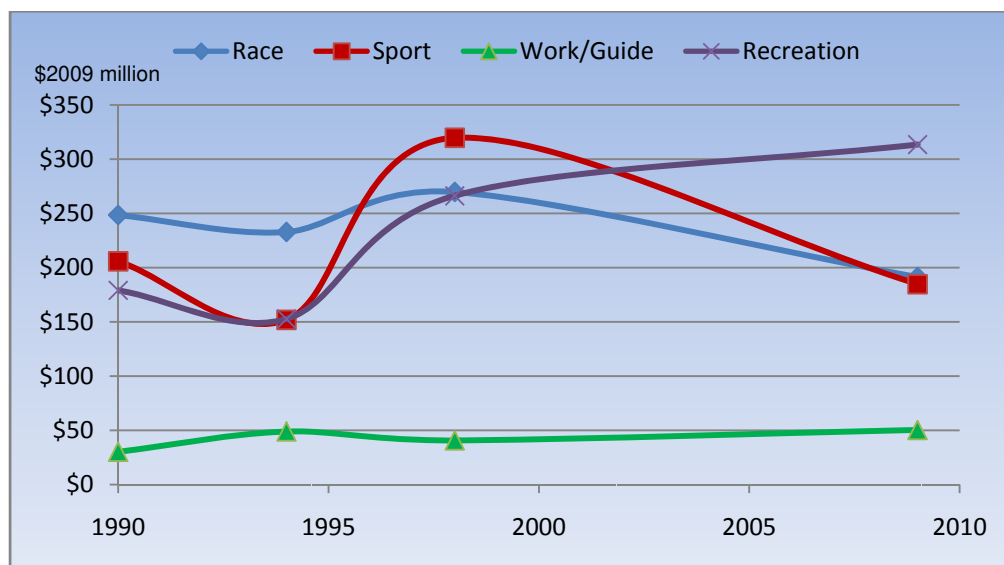
⁷. Total economic impact for the racing sector includes off-farm training and track operations and is taken from Table 31.

Figure 11. Trend in the Economic Impact of the Horse Industry in Inflation Adjusted (2009) Dollars



The contribution of the different sectors has varied over time.

Figure 12. Trend in Economic Contribution by Sector



While the horse numbers grew slightly over the last decade the expenditures in real terms dropped in the racing and sport sector. The lack of data points between 1998 and 2009 makes the graph look more dramatic as the 2009 expenditures are estimated at a time of significant recession.

Table 5. Operating Expenses on Horse Farm Properties

	Race	Sport	Ranch	Guide	Recreation	Total
# of Horses	14703	22327	12531	2626	42738	94925

# of Households	1885	3080	1408	202	15263	21838
# of Horse Properties	1225	1971	1408	202	8853	13659
Annual Maintenance Expense (\$Million)						
Feed (Grain & Hay)*	20.8	30.6	7.0	1.3	44.4	104.1
Bedding	5.9	3.2	1.7	0.2	9.1	20.0
Tack	2.0	4.9	1.3	0.4	10.2	18.7
Farrier	5.1	11.7	2.3	0.5	22.1	41.7
Veterinarian and Dental	11.1	12.6	2.8	0.2	18.7	45.5
Horse Care Products and Services	1.2	3.8	0.6	0.0	8.5	14.1
Repair and Maintenance						
Building and Equipment	7.2	10.0	10.1	0.4	32.3	60.1
Outside Labour	9.7	5.2	3.8	0.5	12.0	31.2
Total	62.9	82.0	29.5	3.6	157.4	335.4
Annual Incremental Board and Training Expense(\$Million)						
Incremental Boarding	10.0	21.0	4.9	0.8	21.5	58.2
Incremental Instruction	8.6	26.1	0.0	0.0	6.5	41.2
Total						99.4
Annual Incremental Activity Expenses (\$Million)**						
Clothes	0.4	1.5	0.0	0.0	3.6	5.5
Travel	4.2	7.0	0.0	0.0	14.9	26.0
Total	4.6	8.4	0.0	0.0	18.5	31.5
Total Annual Operating Expenses (\$Million)	67.5	90.4	29.5	3.6	175.9	466.3

*Sport: \$3.75/day/1000lbs horse

**Costs to horse owners over and above the maintenance cost.

Table 6. Annual Maintenance Costs on a Per Horse Basis

Maintenance	Race	Sport	Ranch	Guide	Rec
Feed	1417	1369	561	492	1039
Bedding	398	309	135	77	213
Tack	135	343	102	74	239
Farrier	344	526	181	172	518
Vet	754	566	223	95	438

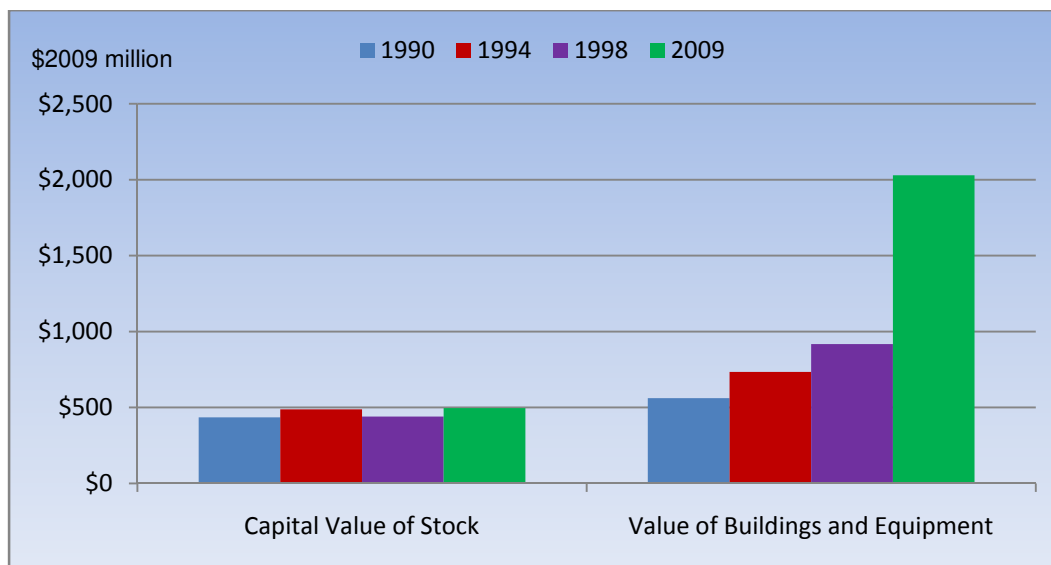
Horse Care Products and Services	83	258	45	13	200
Labour	657	232	300	200	281
Total Maintenance	3789	3603	1548	1124	2928

Table 7. Capital Investment per Horse Farm and per Sector

	Race	Sport	Ranch	Guide	Rec	Total
Horse Farm Properties	1225	1877	1408	202	8990	
# Horses/Farm	7.8	7.3	8.9	13	2.8	
Average Value/Horse	9973	14442	4682	2076	5565	
Capital Value of Stock/Farm	77789	104705	41670	26988	15582	
Present Value of Buildings and Equip/Farm	263750	306823	124795	72500	103505	
Total Capital/Farm	341539	411528	166465	99488	119087	
# Horse Farm Properties	1225	1877	1408	202	8990	13703
Total Capital/Industry (\$100 Million)	4.18	7.72	2.34	0.20	10.71	25.16
Total Capital Value of Stock (\$million)	95.29	196.53	58.67	5.45	140.08	496.0
Total Capital Value of Buildings	332.09	575.91	175.71	14.65	930.51	2028.9

For the purposes of this study, horse farm properties were defined as properties that housed one or more horse for part or all of the year. This includes properties classified as farms and all other properties that keep horses.

Figure 13. Trends in Capital Investment on Horse Farms (\$2009)



In real (inflation adjusted) terms the value of the capital stock of horses has remained steady, however, the inflation adjusted value of buildings and equipment to house and maintain horses has continued to rise over the 20 year period.

4.3 Employment and Jobs

Table 8. Employment Related to Maintaining Horses

Business	Properties Hiring Help (properties X % hiring help)	Hrs/Week	FTE Jobs ⁸
Race	515	28	472
Sport	413	17	230
Ranch			
Work	239	25	196
Guide	51	20	33
Recreation	1259	15	619
Total	2476		1551

Table 9. Employment Related to Training Horses/Riders

Race Horse Sector	
Licensed Personnel (Grooms/Jockey/trainers)	619
Sport Horse Sector	

⁸ 30.5 hours of work/week equates to 1 Full Time Equivalent (FTE) position

Trainers/Instructors 1045 – 40% income ⁹	418
Total FTE Jobs	1037

Table 10. Employment in Support Services

	# FTE Jobs
Veterinarians ¹⁰	1.17 jobs/\$250,000 annual sales - \$45.2 million annual sales 212
Farriers	1 job/\$100,000 annual sales - \$41.4 million annual sales 414
*Feed/Tack Stores ¹¹	500
Total FTE jobs in support services	1125

*weighted to sales of equine products

Table 11. Employment Summary

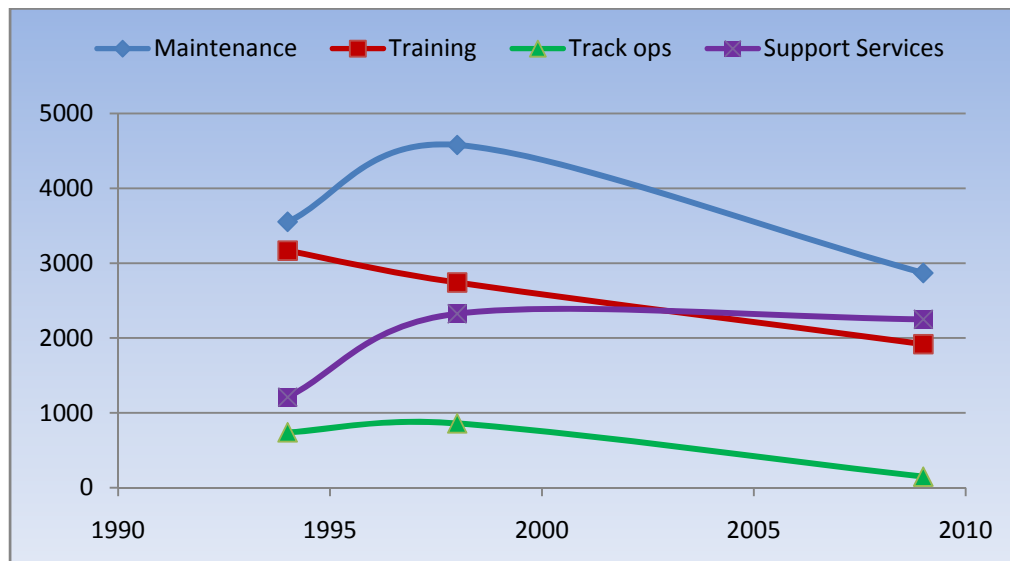
	Direct Jobs	Secondary Jobs	Total
Maintenance of Horses	1551	1318	2869
Training of horses and riders	1037	1037	2074
Track operations	80	80	160
Support services	1125	1125	2250
Total	3793	3560	7353

⁹ In the 2009 survey the proportion of income was not asked. The proportion of time reported in the 1998 survey was used.

¹⁰ The revenues per vet was not surveyed specifically. The estimates were obtained from industry participants.

¹¹ This question was not in the 2009 survey so a number slightly less than the 1998 survey result was used

Figure 14. Trends in Jobs in Different Sectors of the Industry



While the number of horses and number of farms grew slightly over the last decade, the staff to support the horse infrastructure declined. The loss of maintenance and training jobs was most pronounced in the racing sector where jobs related to training at the track and maintain horses on the farm dropped by a third.

4.4 Characteristics of Horse Farm Properties

Table 12. Characteristics of Horse Farm Properties

	Race	Sport	Ranch	Guide	Rec	Total
Capital Investment						
# Horses/Farm	7.8	7.25	8.9	13	2.8	
Average Value/Horse	9973	14442	4682	2076	5565	
Capital Value of Stock/Farm	77789	104705	41670	26988	15582	
Present Value of Buildings and Equipment	263750	306823	124795	72500	103505	
Total Capital/Farm	341539	411528	166465	99488	119087	
# Horse Farm Properties	1225	1971	1408	202	8853	13659
Capital Value of Stock/Industry(\$million)	95	206	59	5	138	504
Total Capital/Industry(\$million)	418	811	234	20	1054	2538
Horse Farm Properties						
% owning horse farm properties	65%	66%	100%	100%	58%	
Median acreage used for horses	10	10	40	67	5	5
Total Acreage used for horses*	12253	19710	56320	13534	44264	146080
Average horses/acre	0.78	0.725	0.2225	0.19403	0.56	
% File Farm Income tax	75%	48%	100%	100%	29%	
Number File Farm Income tax	919	946	1408	202	2567	
% classified farm	46%	36%	100%	75%	22%	
% produce other agri products	21%	32%	100%	75%	27%	
Number produce other agri	257	631	1408	152	2390	4838

products

Median value of other products	4400	8000	15000	20000	3000	
% Board other horses	39%	29%	25%	25%	23%	
# of Properties boarding horses	478	572	352	51	2036	
% where less than half farm income	82%	66%	81%	100%	61%	
Average # boarded	5	8	5	5	5	
Total # boarded						
% Farms that hired outside labour	42%	22%	17%	25%	14%	
Number that hired outside labour	515	434	239	51	1239	
Average hours/week	28	17	25	20	15	
Total hours per week	14409	7371	5984	1010	18591	47365
Total FTE Jobs	472	242	196	33	610	1553
Manure Handling on Horse Properties**						
% with protected manure storage	32%	35%	25%	14%	31%	
% spread manure on their neighbours property	9%	8%	25%	7%	7%	
% spread manure in their property	50%	57%	75%	77%	54%	
% compost and use as fertilizer or sell	50%	33%	25%	35%	47%	
% use commercial manure removal company	15%	16%	0%	1%	6%	
Pasture Management Techniques**						
Rotational grazing	71%	69%	75%	78%	74%	
Irrigation	26%	24%	50%	30%	18%	
Fertilizer	35%	35%	75%	40%	32%	
Chain harrow	70%	58%	75%	70%	51%	
Breeding						
% Breed	***55%	40%	43%	50%	34%	
# Farms Breeding	200	788	605	101	3010	4705
Average foals/year	2	3.48	3.92	3	1.7	
Total Foals/year	400	2744	2373	303	5117	10937

*Median size X # of farm properties

** Will not add to 100% as respondents did more than one thing

***55% is the percentage of survey respondents who indicated they had some sort of involvement in breeding on their farm (producing foals, stallion services, etc.)

4.5 Direct Provincial and Federal Government Tax Revenues from Operating Expenditures in the Horse Industry

Table 13. Direct Government Tax Revenues (from operational expenditures in the Horse Industry) (\$million)

	Expenditures	Prov Rate*	Fed Rate*	Prov Taxes	Fed Taxes	Total
Equip Maintenance	60.1	7.20%	13.75%	4.32	8.26	
Feed/Bedding	124.1	2.50%	10.00%	3.10	12.41	
Tack/Misc	24.3	7.60%	10.00%	1.84	2.43	
Vet/Farrier	87.2	8.50%	12.50%	7.41	10.89	
Travel	26.0	3.90%	8.50%	1.02	2.21	
Wages	69.0	5.00%	15.00%	3.45	10.35	
Incremental Boarding/Training	99.4		5%		4.97	
Total	490.1			21.1	51.5	72.6

* weighted rate estimated from the breakdown of goods vs. wages in the different areas and the resulting sales and payroll taxes.

5.0 BC Horse Industry – Horse people and what they do

5.1 Horse Owners – Demographics

The horse sector continues to have a higher representation of females, people over 45 years old and people with a household income over \$60,000 than the population of BC as a whole. In each area the industry has a stronger representation than before. The percentage of females has gone from 12% over the provincial average to 17% over the provincial average. The age at which the horse industry is overrepresented rose from 36 to 45 and the household income level where the horse industry became overrepresented rose from \$30,000 to \$60,000.

Table 14. Horse Owner Demographics Compared to the Provincial Average

	BC	Total Industry	Diff	Race	Sport	Ranch	Rec
Households		21929		1885	2933	1408	15501
Average # People/Household		1.78		2.27	2.12	2.17	1.74
Total People		39033		4279	6218	3055	26971
% Male	49%	32%	-17%	41%	28%	43%	28%
% Female	51%	68%	17%	59%	72%	57%	72%
Age							
<18	22.30%	19%	-3.300%	16%	27%	15%	16%
19-25	7.50%	8%	0.500%	9%	9%	6%	7%
26-35	13.30%	9%	-4.300%	2%	9%	10%	9%
36-45	16.80%	15%	-1.800%	16%	17%	10%	14%
46-55	15.40%	23%	7.600%	16%	22%	22%	24%
>55	24.70%	27%	2.300%	41%	19%	38%	30%
Household Income							
<\$30,000	19.70%	10%	-9.70%	11%	5%	11%	11%
\$30,000-\$60,000	36.20%	26%	-10.20%	14%	20%	29%	28%
\$60,000-\$100,000	30.20%	33%	2.80%	38%	37%	33%	32%
>\$100,000	13.90%	31%	17.10%	38%	38%	27%	29%

Own a Horse Trailer	73%	64%	80%	95%	69%
Number of Horse Properties	13703	1225	1408	202	8990

*the Guide sector was not included here due to too few survey responses

5.2 Riding for Pleasure

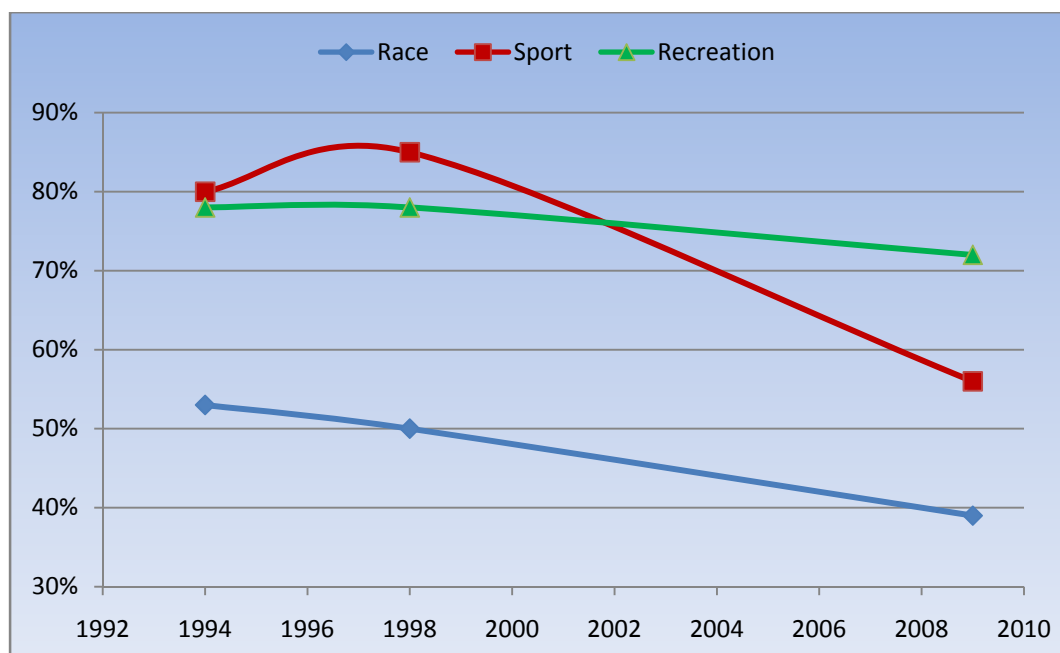
Table 15 summarizes where respondents indicated they rode their horses and how often they rode for pleasure.

Table 15. Horse Riding Activities

	Race	Sport	Ranch	Guide	Rec
% that Pleasure Ride	39%	56%	70%	50%	72%
Days per year that they ride for pleasure	103	160	131	140	147
% that Ride in a Ring/Arena	50%	93%	66%	25%	70%
% that Ride on Roads	31%	53%	49%	25%	50%
% that Ride on Designated Equine Trails	28%	52%	38%	0%	48%
% that Ride on Public Land	38%	54%	76%	100%	53%
% that Ride on Private Land	39%	58%	89%	50%	53%

Respondents to the 2009 survey indicated they rode for pleasure less than in 1998 or in 1994. Figure 15 shows the trends in the race, sport and recreation sectors. The recreation sector showed the smallest drop over the 15 years. Data indicates reduced number of days for pleasure riding. Survey respondents reported activity that suggests otherwise. Further analysis would be needed to clarify anomaly.

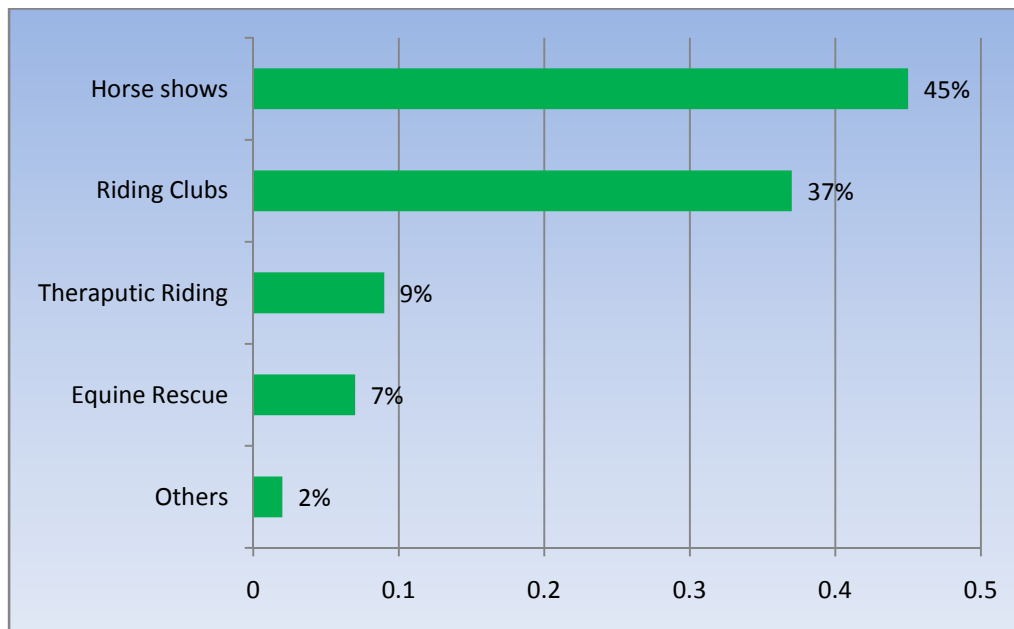
Figure 15. Trend in Pleasure Riding by Sector



5.3 Volunteer Activities of Horse Owners

Horse owners provide an impressive amount of volunteer hours to support industry activities. Respondents indicated they provided volunteer service to horse shows, riding clubs, therapeutic riding centers, equine rescue, building and maintenance of trails in parks and recreational areas and a variety of others. Volunteering provides improved social and economic benefits to the equine industry and local communities throughout the province. The distribution of volunteer time between these activities is indicated below in Figure 16.

Figure 16. Distribution of Volunteer Activities in the Horse Industry



The quantity of volunteer hours provided by horse owners across the province is estimated at **500,000 hours per year**. A breakdown of the volunteer hours provided by the race, sport and recreation sectors is shown in Table 16.

Table 16. Estimate of Volunteer Hours Provided by Horse Owners

Sector	Households	% Volunteering	# Volunteering	Average Hours/yr	Total Hours/yr
Race	1885	38%	716	33	23628
Sport	3080	59%	1817	76	138092
Recreation ¹²	15263	30%	4579	74	338846
Total					500,566

5.4 Guest Ranch Visits and Camping with Horses

Respondents indicated that close to 5,000 horse owners have camped with their horses, 3,000 have visited a guest ranch in BC and 1,000 have visited guest ranches outside of BC Table 17 provides a summary by sector.

Table 17. Households that have Visited a Guest Ranch or Camped with Horses

Sector	Visit Guest Ranch in B.C.	Visit Guest Ranch Out of Province	Camped with their Horses
Race	140	100	261
Sport	381	114	867

¹² The proportion of respondents volunteering (36%) is high relative to the whole recreation sector because respondents represent the more active members of the recreation horse sector. 30% was used to adjust for this bias in the sample distribution.

Recreation	2404	732	3763
Total	2926	946	4891

5.5 Horse Related Activities Out of Province

Horse owners in BC take their horses out of province for certain activities and services. Out of province competition is the most common with almost 3,000 households having travelled out of province for a competition. Recreation and training are the other most common reason for travelling out of province with horses. Table 18 summarizes the activity by sector.

Table 18. Households that have Used Out of Province Activities and Services

Activity or Service	Recreation	Sport	Race	Total
Training	555	312	340	1207
Competition	1281	1060	560	2900
Board	176	25	80	281
Breeding	333	119	420	872
Recreation	843	183	40	1066

5.6 Buying a Horse

Respondents indicated they used a variety of sources when looking to purchase a horse. Use of auctions and breeder contacts was more common in the race sector while use of trainers, the internet and equine publications was more common in the sport sector. Seeking the advice of industry contacts was commonly used across all sectors. Responses are summarized by sector in Table 19.

Table 19. Methods for Seeking out and Purchasing a Horse - By sector

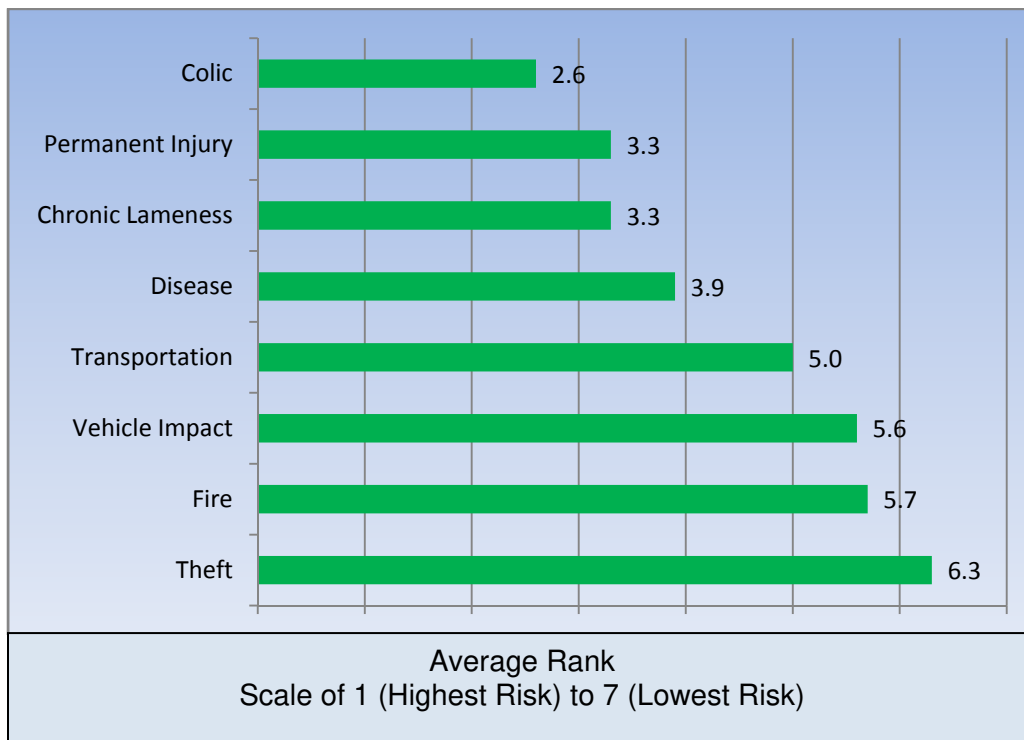
Approach	race	sport	recreation
Web/On-line	33%	67%	9%
Auctions	13%	7%	1%
Breeder contact	47%	35%	4%
Equine Publications	26%	55%	7%
Trainers/Coaches	31%	60%	6%
Industry Contacts	50%	38%	4%
Sale Barns	34%	15%	1%

5.7 Risk Factors for Horse Health

Respondents were asked to rank the threats to the health and welfare of their horses with the highest risk being ranked as 1 and the lowest as 7. Colic was considered the highest risk to the

health and welfare of horses. The ranking was similar across the sport, race and recreational sectors. The responses are summarized in Figure 17 below.

Figure 17. Owner Ranking of Health and Welfare to Horses



6.0 Horse Farm Management

6.1 Manure Handling¹³

Manure handling practices on farms have changed over the last 15 years. In general in the race, sport and recreational sector there has been a movement away from spreading manure or shipping it off through a commercial hauler to composting on-farm and selling the manure.

Figure 18. Proportion of Horse Farms That Spread Manure

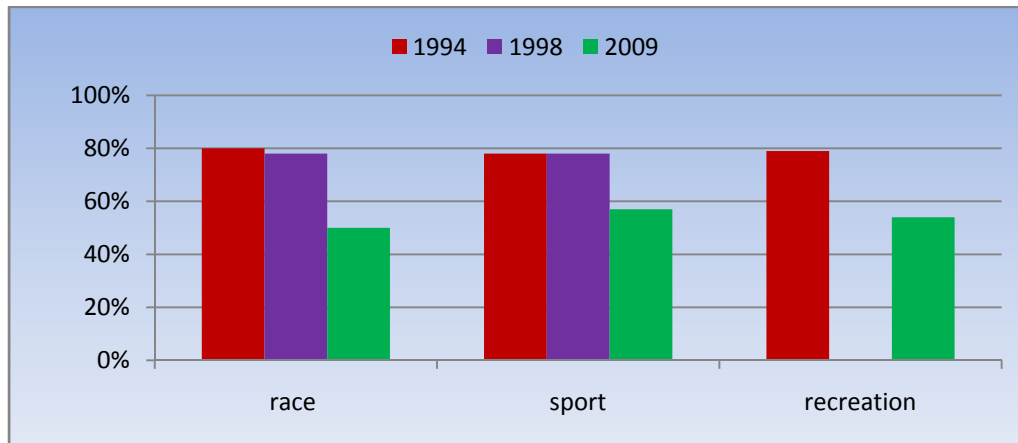
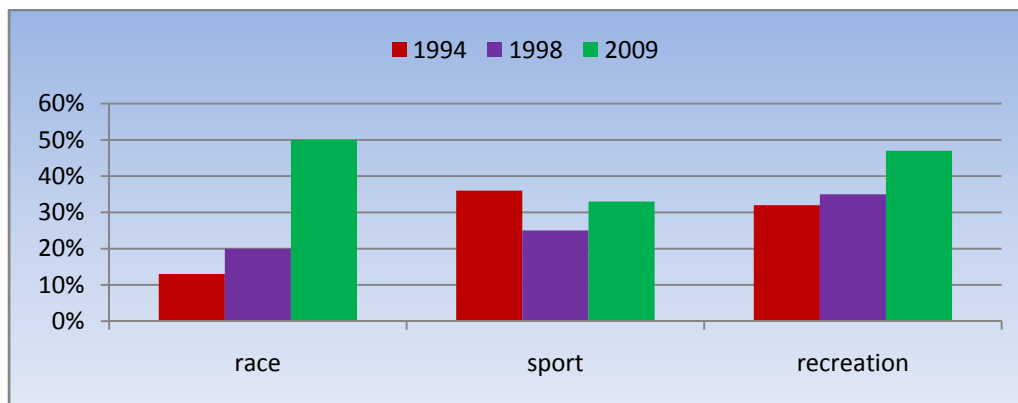
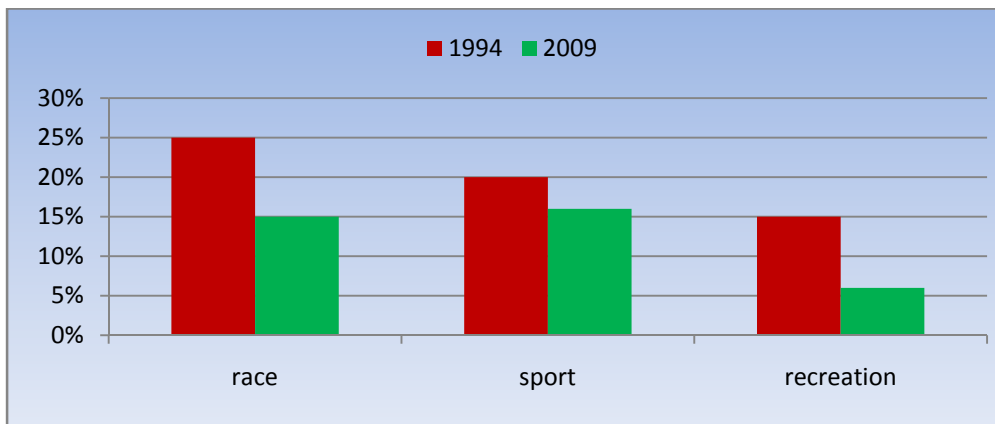


Figure 19. Proportion of Horse Farms that Compost and Sell Manure



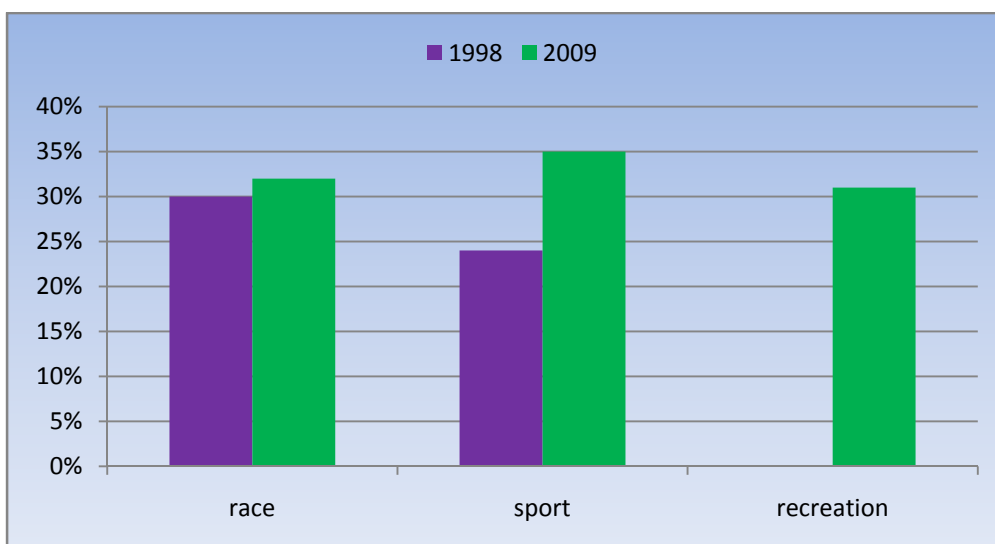
¹³ The race, sport and recreation sectors are of particular interest as they tend to be on smaller properties near urban centers.

Figure 20. Proportion of Horse Farms that use Commercial Manure Removal



Respondents from the race and sport sector indicate there has been a slight increase in horse farms with protected manure storage.

Figure 21. Proportion of Horse Farms with Protected Manure Storage



6.2 Farm Management Practices

6.2.1 Pasture Management Practices

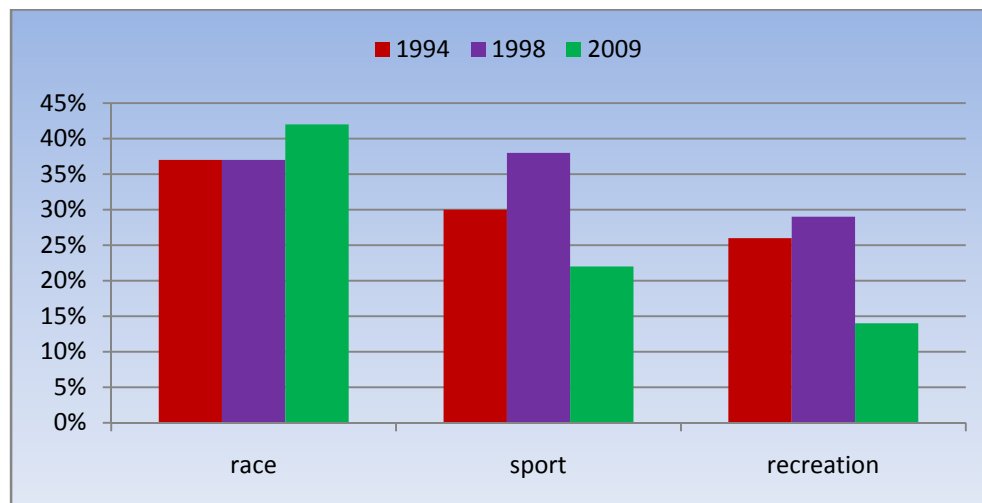
Responses indicated there has been little change in pasture management practices over the last decade. Responses indicate use of the different types of pasture management practices fall within the following ranges:

- Rotational grazing 70 – 80 % of horse farms
- Irrigation 20 – 25 %
- Fertilizer 35 – 40 %
- Chain harrow 55 – 65 %

6.2.2 Horse Farms that Board Other Horses

In general responses indicated there has been a declining involvement with boarding outside horses. Racing is the one exception where the proportion boarding went up slightly in 2009.

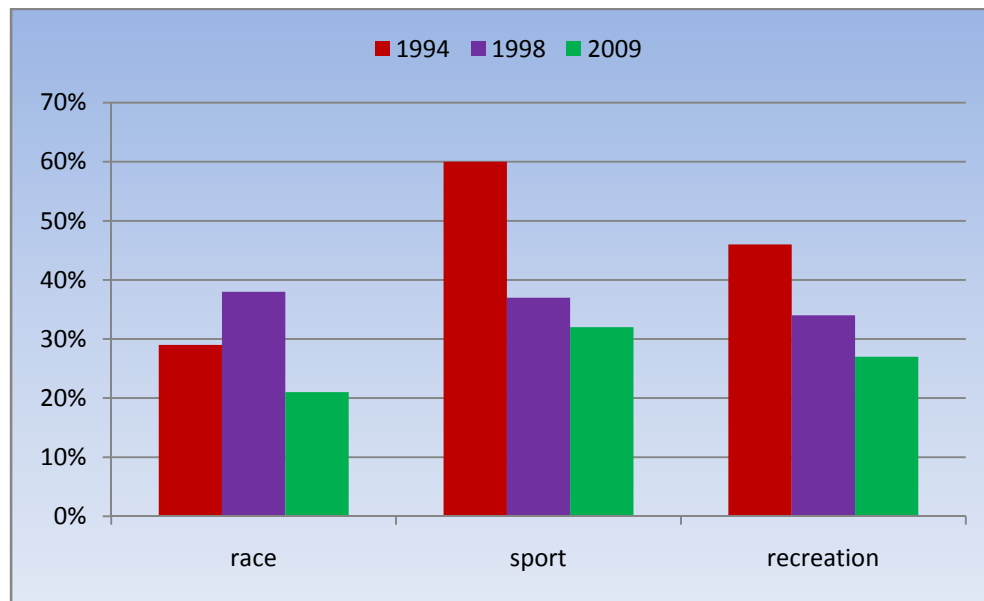
Figure 22. Trend in Horse Farms that Reported Boarding Horses



6.2.3 Horse Farms that Produce Other Agricultural Products

Figure 23 displays the trend in horse farms that grow other agricultural products. Production of agricultural other products on horse farms has declined over the past 15 years.

Figure 23. Trend in Horse Farms that Grow Other Agricultural Products



6.2.4 Farm Financial Management

The proportion of horse farms that reported filing farm income tax from 1990 through 2009 remained stable. Horse farms within the different sectors reported filing fall in the following ranges:

- Race 80 – 85 % of horse farms
- Sport 50 – 55%
- Recreation 30 – 35%

One quarter of the horse farms who responded indicated they had a farm business plan, and of those 80% updated it annually.

7.0 Methodology

This study began the task of estimating the number of horses by dividing them into five different sectors according to activity: **race, sport, recreation, guide** and **work**. The population in the race, sport and work sectors can be determined quite accurately as

most of the population are members of associations or must be licensed in some way. The ratio of census vs. non-census horse farms was used to estimate the number of recreational horses (see section 7.3.1 for more detail).

7.1 Limitations of this Study

This report presents an analysis of the data collected in the 2009 Horse Industry Survey. The industry has both an agricultural aspect (related primarily to the raising and training of horses) and a recreational aspect (boarding stables, riding for pleasure). While this distinction is applied here in developing the data tables, in actual farms and businesses there may be little differentiation between the two types of activity. In this report the focus is on the agricultural aspect, so some of the activities, capital assets, jobs and revenues associated primarily with recreation may not be represented completely. Some anomalies in the current report (for example, a growth in number of horses vs. a decrease in number of jobs related to the industry) suggest a more detailed look at the data would be useful.

One of the goals of the survey is to provide a picture of how the horse industry is changing over time. Changes are influenced both by developments within the industry and by general economic and social conditions. The previous Industry survey took place in 1998. Between 1998 and 2009, there was an enormous expansion of residential housing into primarily rural areas. This impacts the horse industry in both positive and negative ways. Changes in land value make the use of land for horse farms look relatively less attractive economically; loss of agricultural land will increase rents and raise the cost of farm inputs such as hay. On the other hand, a larger and potentially wealthier population living in areas with easy access to horses can lead to increased interest in recreational riding, lessons, equipment purchase etc. This would increase the relative importance of the recreational vs. agricultural aspects of the industry. Further work is needed to determine whether land use change and other economic drivers affect various sectors within the horse industry differently.

This report attempts to provide a complete picture of the horse industry by extrapolating the data received from the survey respondents. The survey was mailed to all HCBC members, which provides an adequate representation of the diversity of activities in the industry but does not necessarily cover all people and animals involved. Thus, in this report, the absolute numbers may be systematically under-estimated. Numbers presented directly as percentages will be more reliable. Further analysis of the survey responses in conjunction with other sources of data (for example the agricultural census, recreational surveys and data on land values and land use change) would improve the accuracy of the various statistical measures that have been tabulated here.

7.2 Survey Structure and the Quality of Survey Responses

Not all the questions in the previous surveys were included. Footnotes are used to indicate how previous data or industry input was used to supplement survey responses in these areas.

7.2.1 Quality of Responses

The 2009 survey was longer and formatted differently than the previous surveys. A source of bias in the results may be due to non-response, where some survey respondents skipped over questions or sections and thus their information was not included in the data analysis. Where responses provided an irrational response¹⁴ the data was adjusted using relative data from the 1998 survey.

7.3 Estimate of Specific Numbers used in the Report

The following sections explain how some specific numbers in the report were estimated.

7.3.1 Estimate of Recreational Horses

Unlike the race and sport sector, there is no easy means of determining how large the recreation sector is as the population doesn’t necessarily belong to any member associations. The number of recreational horses was estimated by first estimating how many census farms reporting horses were recreationally based. This was determined by taking the difference between Statistics Canada's reported number of census farms reporting horses and the farms we knew or estimated were involved in racing, sport or work.

Table 20. Estimate of Census Farms by Sector

Sector	Estimated Census Farms (2006)
Race	867
Sport	1047
Work	1560
Recreational	3205*
Total census farms reporting horses	6679

*The difference between the total census horse farms and the sum of the census farms in other sectors

Only 21% of households owning recreational horses reported that they were census farms. Using this proportion it is estimated that there are 3205/.21 or 15263 households in the province that own recreational horses. To find the number of horses in the sector, the total number of households was multiplied by the average number of horses per household for the sector.

7.3.2 Estimate of Sport Horse Training & Instruction Wages

Table 21. Estimate of Sport/Rec Training Wages

1045 certified coaches at 15 hours/wk @ \$40/hr	\$32,604,000.00
---	-----------------

¹⁴ For example the average cost to feed a sport horse lower than the cost to purchase sufficient hay and grain at prevailing prices. This number was adjusted to the conservative side of the cost.

7.3.3 Estimate of Incremental Boarding Cost (Cost over the maintenance cost of the horse)

Table 22. Incremental Boarding Cost

	Race	Sport	Work	Guide	Rec	Total
Farms Boarding	478	544	352	51	1259	
Average/farm	5	8	5	5	5	
Horses boarded	2390	4352	1760	255	6295	15052
Horse Days boarded	872350	1588480	642400	93075	2297675	
Rate/day	17	17	10	10	14	
Maintenance Cost/day	5.57	3.77	2.31	1.87	4.63	
Incremental Board Rev/day	11.43	13.23	7.69	8.13	9.37	
Total incremental Board (\$ millions)	10.0	21.0	4.9	0.8	21.5	58.2

7.3.4 Estimate of Race Horse Training Expense

Table 23. Incremental Race Horse Training Expense

	Thoroughbred	Standardbred	
Average Monthly Training Cost	1,600	1068	
Average Monthly Maintenance Cost	366	350	
Incremental training cost	1,234	718	
Estimated horse months of training*	5760	2070	
Annual incremental training expense	\$7,107,840	\$1,486,260	\$8,594,100

*2/3 of Thoroughbred horses in training x 60%/year, 1/3 of Standardbred horses in training x 60%/year

8.0 Economic Impact of the Horse Racing Sector in BC

Summary

The race horse sector provides:

Annual Economic Impact	\$191 million
Full time Equivalent Jobs	2,450 Jobs
Horse Farm Properties	1,225
Investment in Horses	\$95 million
Investment in Capital (exc. land)	\$342 million
Direct annual government tax revenues	\$12 million

The racing sector showed real¹⁵ economic growth during the 1990's, however, the economic impact has declined in the past decade. Drops in the key industry indicators such as foals produced (20% reduction) days of live racing (40% reduction) and betting handle (60% reduction) reflect the decline in the size of the racing sector in BC.

The industry underwent some significant shifts during the last decade. The economic activity shifted from the gambling side of the industry to the breeding and training side of the industry. For example in 1998 one out of five jobs in the race sector was related to the gambling side. In 2009 only one in nine jobs was on the gambling side.

While the economic impact of the industry was shrinking, investment in buildings and equipment increased and investment in horses remained the same. In essence while the core capacity of the industry remains, the economic activity around that capacity has dropped.

Optimism for the future has been declining. In 1995, 41% of respondents indicated they planned to increase their involvement in the industry. By 2009 the proportion intending to increase their involvement dropped to 17%.

While the drop in economic impact is disappointing, maintenance of the industry infrastructure provides optimism that if the climate for growth returns, the industry is in a position to respond quickly.

Industry respondents identified the size of purses relative to the cost of maintaining a race horse as the key constraint to growth.

8.1 Introduction

¹⁵ Means inflation adjusted

The goal of an economic impact study is to answer the question: *If the industry did not exist, how much would the Provincial Domestic Product, number of jobs and tax base be reduced?*

The approach to estimating the economic impact of the horse racing sector is based on recognition that:

1. there are two key sources of funds entering the industry, the take-out from the pari-mutuel handle¹⁶ and payments by owners for services provided to train and maintain their horses and
2. the assumption that owners, on average, do not take profits from the industry¹⁷.

The assumption of no profits taken may seem counter intuitive from an economic perspective – why would people own race horses if they didn't make money? There remains an opportunity to make money by competing for purses generated by the pari-mutuel take-out; however, owners also gain value from the thrill, passion and entertainment value of owning or breeding a race horse. These non-market values associated with owning a race horse makes it a rational action despite the probability that on average no profit will be gained from the activity.

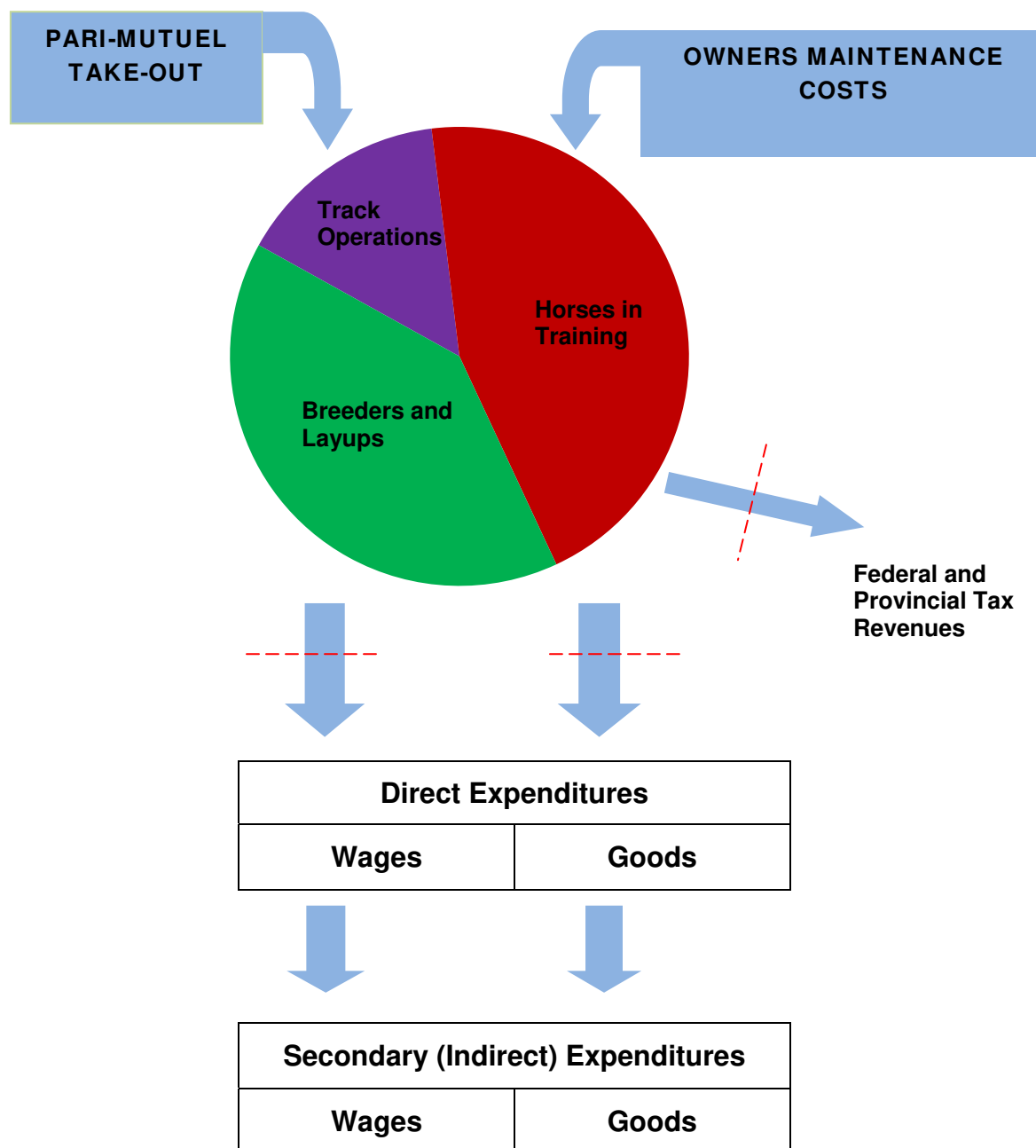
By assuming no profit on average, the size of the industry can be represented by the costs incurred in maintaining race horses, maintaining breeding farms and operating the race track. The pari-mutuel take-out and owner's maintenance costs are inputs and expenditures on goods, wages and taxes are the outputs.

The approach is shown diagrammatically in Figure 24 below.

¹⁶ Under a pari-mutuel betting system the house takes a specific amount of all wagers then returns the balance to the public based on the odds created by the proportion of money bet on each horse

¹⁷ A recent study of the yearling market by the author found that only 5% of race horses earn a profit

Figure 24. Structure of the Horse Racing Sector



The economic impact of the industry can be estimated by estimating the flow of wages and expenditures required to maintain all of the racing and breeding horses and the wages and expenditures required to operate the track. Federal and provincial taxes can be estimated from the flows of wages and expenditures based on prevailing tax rates. The points at which the expenditures are measured are indicated by the red dotted lines.

The indirect economic impact is a result of the spin-off effects of wages and expenditures in the industry. When a veterinarian buys supplies or a groom spends his/her earnings on other goods it generates more economic activity. These wages and expenditures are a result of activity in the industry so need to be included in the estimate of economic impact. This is often done based on a multiple of the direct impact. Thalheimer, in his study of *The Economic Impact of the*

California Race Horse Industry, used multipliers from .97 to 1.16 to estimate the indirect effect from the direct effect.¹⁸ These are on the conservative side of the multipliers used in other work on the horse industry. For simplicity and to stay conservative this study uses 1 as the multiplier to estimate indirect from direct economic impacts.

This estimation of economic impact does not include transactions in horses or land so to that extent is biased on the conservative side.

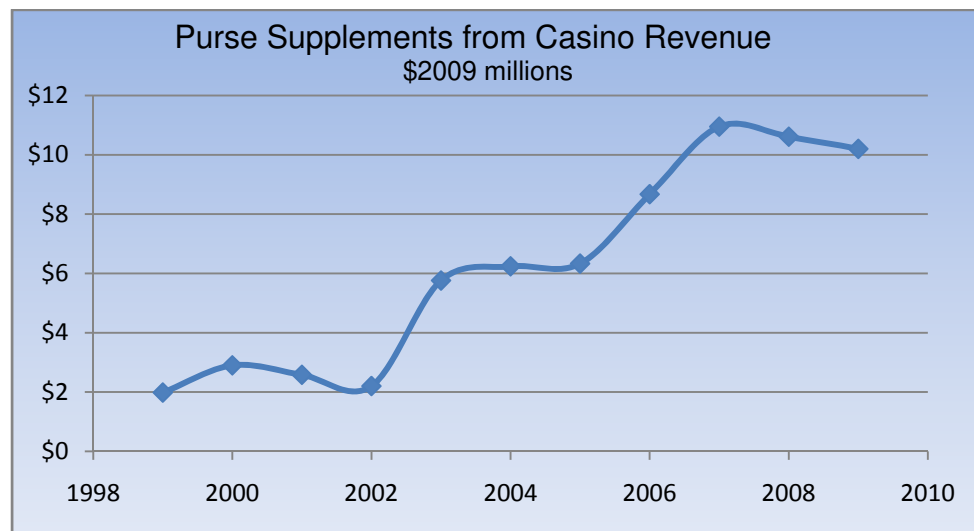
Horse transactions are not considered under the assumption that there are no profits taken from the industry. The purchase of a BC bred horse is just a transfer of funds within the industry- from one racing owner to another or from the racing owner to the breeder.¹⁹ Land is not considered in the entire report as land values vary greatly throughout the province and any estimation would not contribute to our understanding of the industry.

The primary data for the estimate of the economic impact was obtained from a survey of horse owners conducted by HCBC.

8.2 Purse Supplements from Casino Revenue

Historically the pari-mutuel take-out was split roughly half for purses and half for track operations. With the addition of slots at race track facilities in 2000, a portion of the revenues from slots has been provided to supplement purses. Purse supplements from 'casino revenue' have grown from \$1.6 million in 2000 to \$10.2 m in 2009.

Figure 25. Purse Supplements from 'Casino' Revenues (in \$2009 millions)



The source of funds for purses does not impact the estimate of the economic impact of the industry. The assumption of no profits taken out means the size and scope of the industry is still measured by the expenditures to produce and maintain race horses.

¹⁸ Thalheimer has a more in depth explanation and reference to the California input-output studies that were the basis of his choice of multipliers

¹⁹ Purchases of non-BC bred race horses would have to exceed total purses to invalidate this assumption

8.3 Overview

Detailed Findings of the 2009 Economic Impact of the Horse Racing Sector

Annual Economic Impact	\$191 million
Full time Equivalent Jobs	2,446 Jobs
Investment in Horses	\$ 95 million
Investment in Capital (excluding land)	\$342 million
Direct annual government tax revenues	\$11.86 million

The farm base of the industry involves:

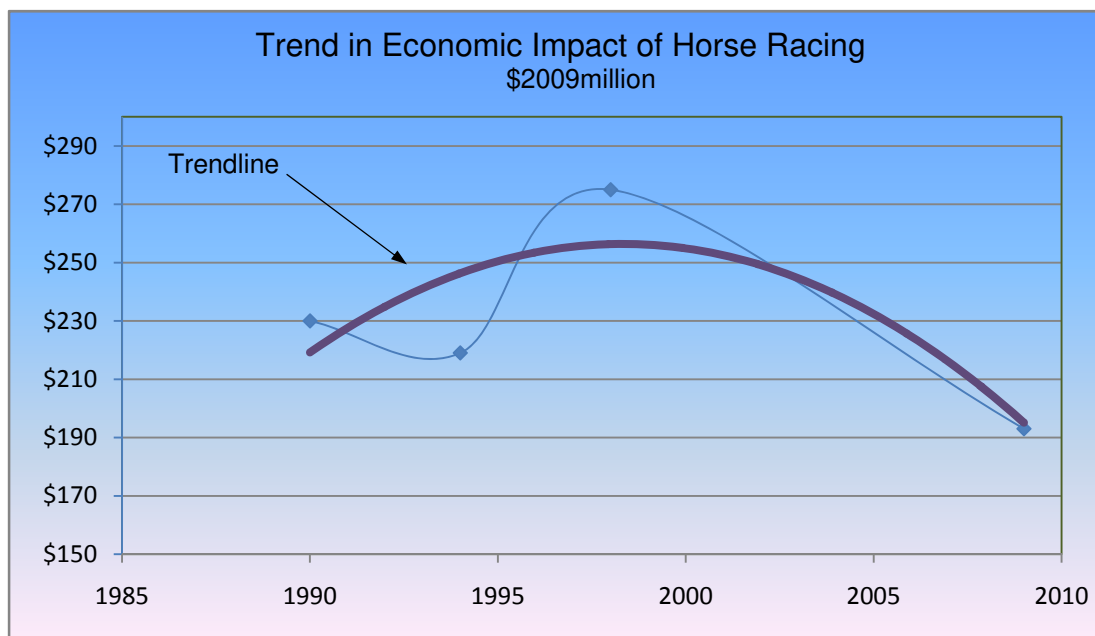
1225	Farms, housing
8,822	Horses, on
12,000	Acres of farmland

8.4 Industry Trends

Similar studies conducted in 1990, 1994 and 1998 provide the basis to look at the trends in the industry over two decades. It is important to note that the gaps between data points are large so the trends do not capture the smaller year to year fluctuations.

Figure 25 shows the specific estimates and the trend line for the economic impact over the last two decades, inflation adjusted to \$2009.

Figure 25. Inflation Adjusted Trends in the Economic Impact of Horse Racing (\$2009)



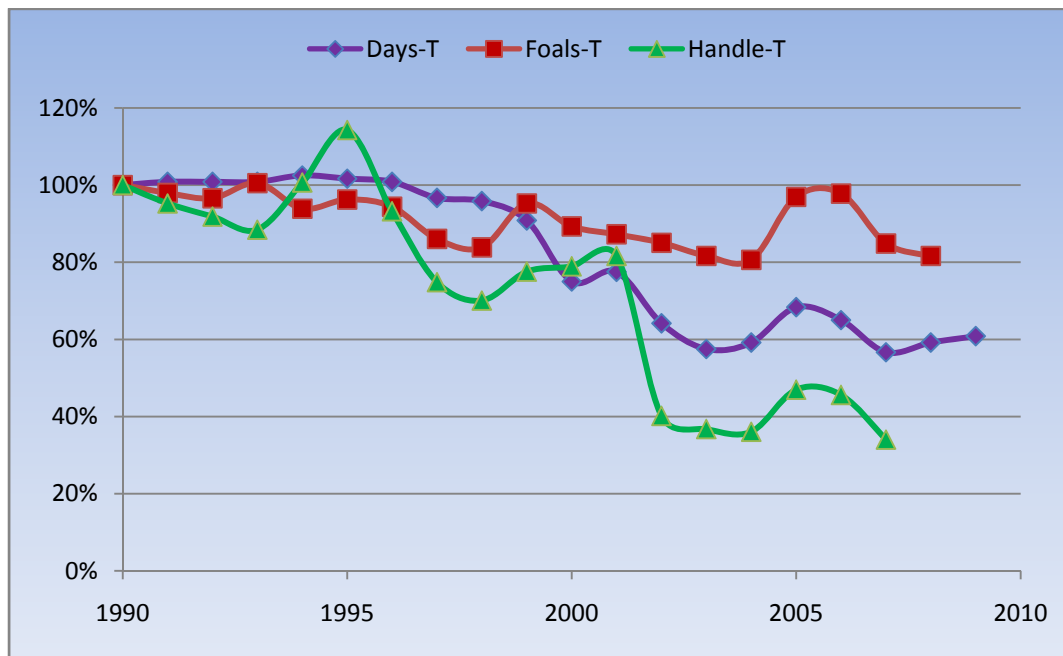
industry showed real growth during the 1990's but has declined in the last decade.

In
general
terms
the

The decline in overall economic activity, from 1998 to 2009 in real terms, is approximately 30% using the specific estimates and approximately 25% using the trend line. Within this general drop, some areas of the sector were affected more than others.

The underlining indicators in the industry, foal production, handle and racing days also declined over the decade.

Figure 26. Trend in Foal Production, Racing Days and Handle – Thoroughbreds using 1990 as the base year for comparison



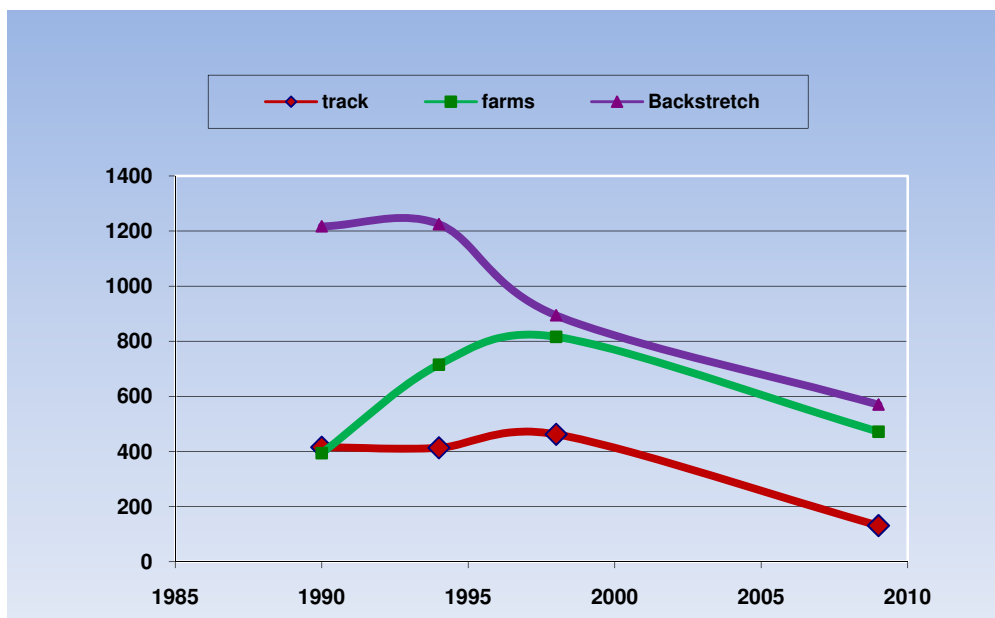
Foals are the raw product that supports racing and race days are a major determinant of total handle. In general terms over the last decade foal production dropped 20%, race days dropped 40% and handle dropped 60%.

Jobs within the industry shifted from the gambling side to the horse training and breeding side. In 1998 for every gambling job there were four training and breeding jobs. In 2009 there were eight horse training and breeding jobs for every gambling job.

Part of the reason for this is the autonomy of teletheatre gaming and use of self-serve tote machines. Teletheatre outlets began using signals from all over the world and no longer need the local racing product to survive.

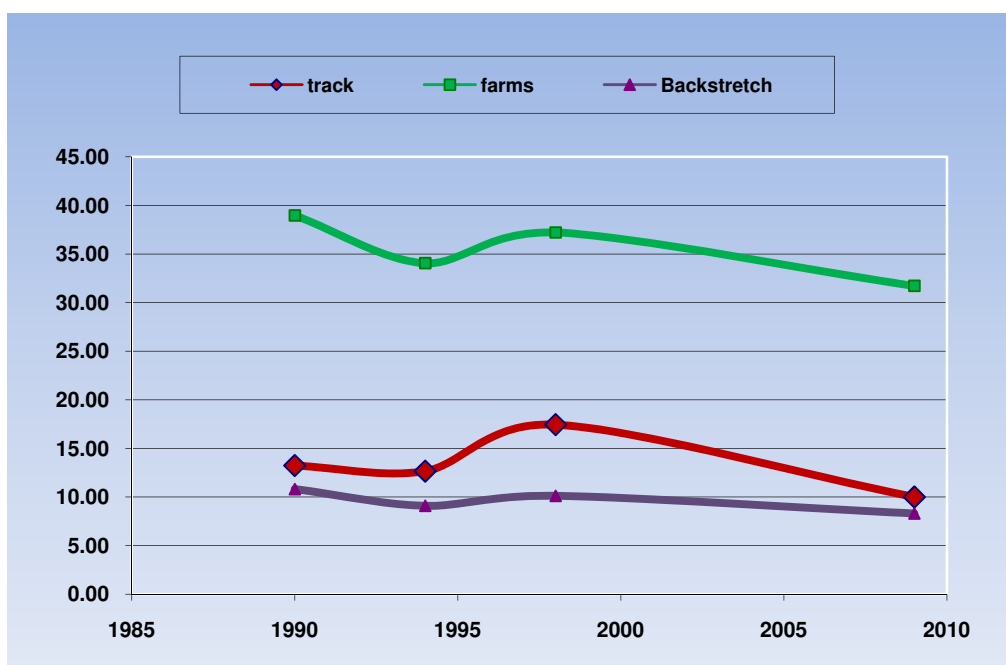
Figure 27 shows the trends in jobs in the different sectors of the industry.

Figure 27. Trends in Jobs in the Race Horse Sector



The drop in expenditures is less dramatic than the drop in jobs, particularly on the farm side. The drop in expenditures on the backstretch is related to the drop in number of horses and racing days.

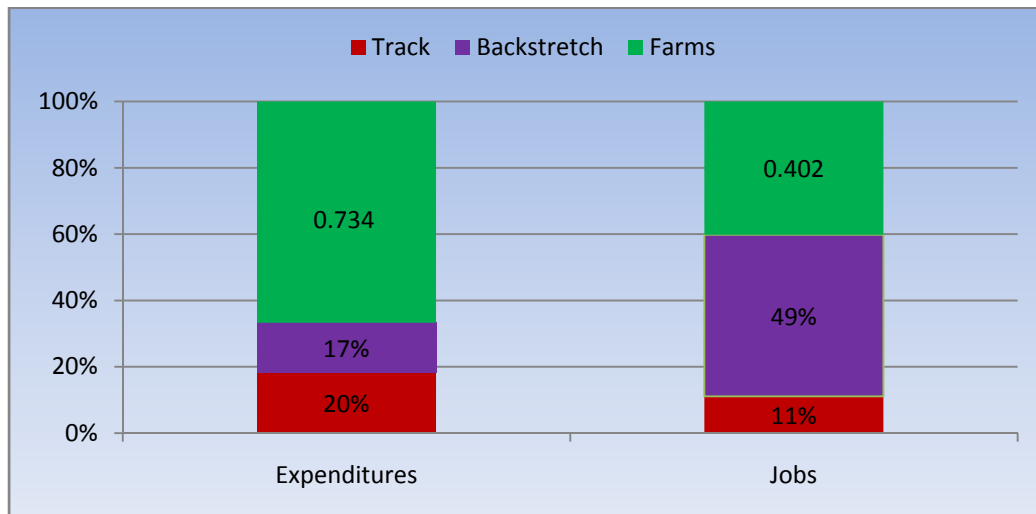
Figure 28. Trends in Expenditures in the Race Horse Sector



The reason the total economic impact has held reasonably well is because the expenditures to maintain the race horse base on the backstretch and farms have held up over the decade.

The distribution of jobs and expenditures amongst the sectors is different. The backstretch provides almost half of the jobs in the industry while the farms generate almost three quarters of the expenditures within the industry.

Figure 29. Distribution of Jobs and Expenditures in the Horse Racing Sector



8.4 The Future

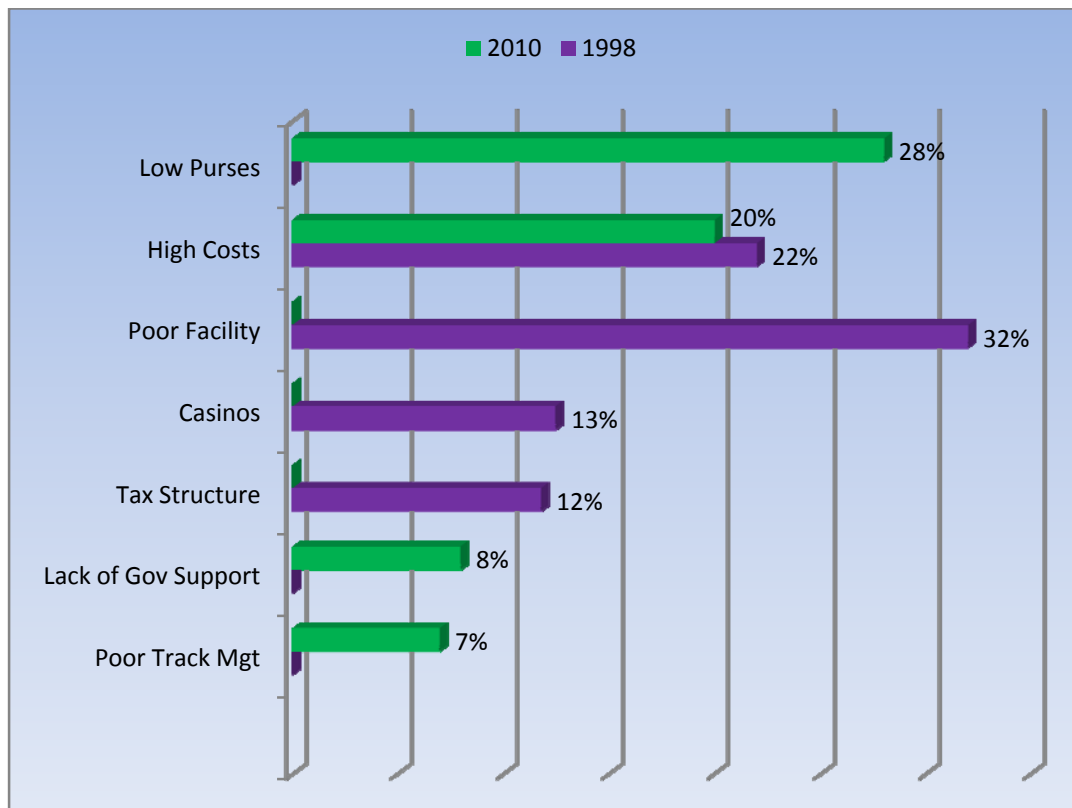
Industry optimism for the future has generally declined over the last 15 years. The proportion of the individuals in the industry that plan to increase their involvement has dropped from 41% in 1994 to 17% in 2009.

Table 24. Intentions of Race Horse Owners over the Next Five Years

	Increase	Decrease	Stay the Same
2009	17%	45%	38%
1998	30%	22%	47%
1994	41%	17%	42%

The biggest challenges facing the industry, from the horseperson's perspective have also changed. In 1998 the challenges identified by the industry were the quality of the facility, high costs and competition from casino gambling. In 2009 those challenges have changed from the horseperson's perspective to low purses, high costs, lack of government support and poor track management. The quality of the facility and competition from casino gaming had very few comments in 2009.

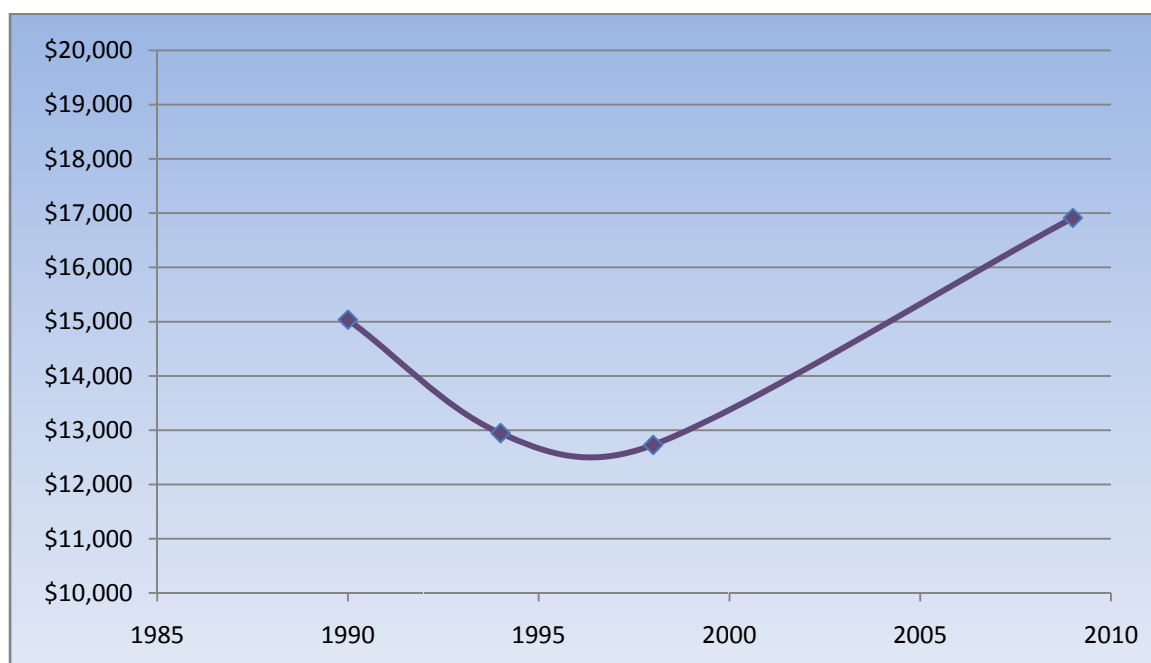
Figure 30. Constraints to Growth in the Racing Sector



High cost was the only comment common to the industry perspective in 1998 and 2009.

Figure 31 shows the trend in the real inflation adjusted cost of maintaining a race horse.

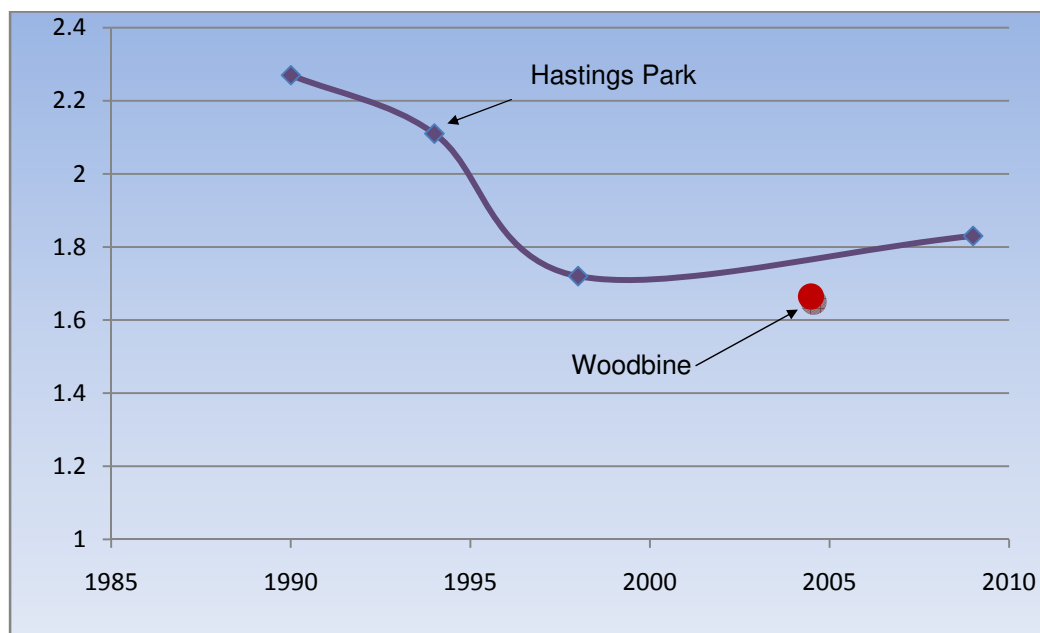
Figure 31. Trends in the Annual Cost of Maintaining and Training Race Horses in Inflation Adjusted \$2009



The real cost of maintaining a race horse was declining during the 1990's but has increased during the last decade.

The provision of the racing product is driven by owners' interest in chasing purses. Seldom do they win more than it costs but the relative cost of their involvement drives their level of involvement. A measure of their relative cost is the relationship between the annual cost to maintain a race horse and the lowest purse available. Figure 33 below shows the trend in the ratio of the annual cost of maintaining a race horse and the lowest purse value.

Figure 32. Annual Maintenance Cost as a Multiple of Lowest Purse Value at Hastings Park



The ratio of annual maintenance cost to lowest purse was improving during the 1990's but has slipped a bit over the last decade despite the increase in nominal purse amounts. The current ratio at Woodbine is approximately 1.67 (red dot on graph).

8.5 Interpretation

From working through the data one gets the sense the industry is in a state of suspended animation. The infrastructure is in place, the breeders are still there and the farms are still there. But they have minimized costs and activities in hopes of an awakening at some point in the future. The concern of course is that if the awakening does not come, eventually the capacity within the industry will decline to a point where it is much more difficult to respond.

The shift in economic activity from the gambling side to the horse production and maintenance side is significant. In the area of jobs 1 in every 5 jobs was on the gambling side in 1998. In 2009 only one in every nine jobs is in the gambling side. While patrons watch a horse run at the race track, the industry is predominantly on the backstretch and farms throughout the province. **There continues to be 4 horses on the farm to support every horse that is racing at the track.**

The racing industry is driven by the size of the pari-mutuel take-out and the purses that result from it. The industry has finally recognized that this is the single biggest issue in racing and most other concerns will resolve themselves with higher purses.

8.6 Detailed Economic Analysis Calculations

The key source data is summarized below:

Table 25. Daily Cost of Maintaining a Race Horse

	<i>Thoroughbred</i>	<i>Standardbred</i>
Daily Training Rate	\$52.50	\$35.00
Veterinarian	\$9	\$9
Farrier	\$4	\$4
Insurance	\$1	\$.5
Total for hired trainer	\$66.5	\$48.5
Feed and Supplements	\$7	\$6
Bedding	\$2	\$2
Tack & Misc	\$3	\$3.50
Veterinarian	\$9	\$9
Farrier	\$4	\$4
Groom	\$10	\$5
Gallop	\$6	
Total for self trained	\$41	\$29.5

8.6.1 Jobs and Expenditures Related to Training Race Horses

Table 26. Expenditures Related to Care and Training at Race Tracks and Farm Training Centers

<i>Hastings Park</i>	<i>Expenditures</i>	<i>Goods</i>	<i>Wages</i>
Owners Training Expense			
- 400 owner trained @ \$41/day *270days	4.43		
- 800 hired trainer @ \$66.5/day *270days	14.36		
Owners Lay-up Expenses²⁰			
- 450 boarded out @ \$24.5/day *95days	1.05		
- 750 kept at home @ \$14.5/day *95 days	1.03		
Total	20.87		
Cost of Goods*		6.39	

²⁰ Layup amounts include a \$4.50/day charge for vet and farrier. The basic day rate for boarding and thoroughbreds is \$20/day, Standardbreds is \$18/day and for self board \$10/day

Wages (the difference)		14.48		
Fraser Downs				
Owners Training Expense				
- 400 owner trained @ \$29.50/day *270 days		3.19		
- 300 hired trainer @ \$49.50/day *270 days		4.01		
Owners Lay-up Expenses				
- 250 boarded out @ \$22.5/day *95 days		0.53		
- 450 kept at home @ \$14.5/day *95 days		0.62		
Total		8.35		
Cost of Goods*			3.58	
Wages (the difference)				4.77
Jockey/Driver/Agent Fees				
Hastings Park		1.2		1.2
Fraser Downs		0.3		0.3
		1.5		1.5
Total Major Tracks		30.72	9.97	20.75
Secondary Tracks	(5% of major tracks)	1.5	0.5	1
Personal Expenditures		Total Expenditures		
Travel	1885 households x \$2228/household		4.2	
Clothing	1885 household X \$212/household		.4	
Total			4.6	
Industry Total		36.82	15.07	21.75

*cost of goods was calculated as feed/bedding/tack x 20% Vet & Farrier - \$14.60/day

Table 27. Jobs Related to Care and Training at Race Tracks

Licensed Personnel						
Position	Hastings	Fraser	Secondary	Total	Adjustment	FTE Jobs
Jockey/Driver	59	11	3	73		73
Trainers	94	33	6	133	X.75 ²¹	100
Grooms	474	107	20	601	X.66 ²²	397
Vets/Farriers	23	24	2	49		49
Total				856		619

Summary of Expenditures Related to Care and Training at Race Tracks

Goods	\$15.07 million
Wages	\$21.75 million
Total Expenditures	\$36.82million

²¹ to adjust for part time nature of some trainers (from survey responses)

²² Reduced due to part time nature and 'owner involvement' nature of some groom jobs

8.6.2 Expenditures Related to Maintaining Breeding Stock

Table 28. Jobs and Expenditures Related to Maintaining Breeding Stock²³

Expenditures on Goods		
14703 horses * .6 Racing breeds - 1900 Racing		= 6922 on farms
6922 * costs to maintain horses of \$3542		\$24.52m
R & M on 1225 farms @ 5,884/year/farm		\$7.21m
		\$ 31.73 m
Wages		
1225 Farms		
42% of farms hire 28 hours of work/week@ 12.90/hour*52 weeks		\$9.67m
Total Expenditures Related to Care on Horse Farms		\$41.40m
Jobs		
515 farms hiring 28 hours/week		= 14,420 hours/week
14,420 hours/week/30.5 hours/week/job		472 FTE Jobs

8.6.3 Jobs and Expenditures Related to Race Track Operations

Table 29. Jobs and Expenditures Related to Race Track Operations

Mutual Clerks		
Hastings Park	52 clerks*76 days	= 3952 clerk days
Fraser Downs	27 clerks*99 days	= 2673 clerk days
Secondary	5%	= 331 clerk days
Total Clerk Days		6956 @ \$100/day = \$.70 m
Total Jobs	6956 days/250 days/job	28 FTE
Concessions		
Hastings Park	50 concession workers*76 days	= 3800 Concession days
Fraser Downs	20 concession workers*99 days	= 1980 Concession days
Secondary	5%	= 289 Concession days
Total Concession days		6069 @ \$100/day = \$.61 m
Total Jobs	6069 days/250 days/job	24 FTE
Admin and Management		
Hastings Park	50 employees @ \$50,000/year	= 50 FTE and \$ 2.5 m
Fraser Downs	30 employees @ \$50,000/year	= 30 FTE and \$ 1.5 m
Total Jobs		80 FTE and \$ 4.0 m

²³ Breeding farms have other breeds besides horses. Survey results indicate approximately 60% of horses on farms that breed thoroughbreds are thoroughbreds; 40% are other breeds

Total Track Operations	
Total Wages	\$5.31 million
Total FTE	132 Jobs
Track Operation Estimated Expenditures²⁴	\$10.0 million

8.6.4 Tax Revenues from Race Horse Sector

Table 30. Tax Revenues from Race Horse Sector

Wages²⁵					
	Wages	Fed Tax	Prov Tax	Total	
Horsemen	21.75	3.26	1.1		
Breeding Farms	10.8	1.62	0.55		
Track Ops	5.31	0.8	0.27		
Total Revenues	39	5.68	1.92	7.6	

Patron Expenditures²⁶					
	Purchases	Customers	Fed Tax	Prov Tax	Total
Concession/Programs	\$20	292000	5.8	0.29	
Alcohol	\$3	292000	0.88	0.04	0.06
Total			0.33	0.06	0.39
Pari-mutuel Handle				3.87	

Summary of Tax Revenues					
	Take-out	GST	PST	Income	Total
Federal		0.33		5.68	6.01
Provincial	3.87		0.06	1.92	1.98
	3.87	0.33	0.06	7.6	7.99

²⁴ Estimated from the portion of the take that is available for expenditures plus 30% of food and beverage sales from racing patrons

²⁵ A tax rate 15% and 5% was used for backstretch and farm workers and a rate of 7% and 20% was used for track ops workers

²⁶ Assuming 2000 patrons for Fraser Downs and 3500 for Hastings Park gives you 255,500 patrons/days/year

8.6.5 Summary of Economic Impact from the Race Horse Sector

Table 31. Summary of Economic Impact of Race Horse Sector

	<i>Wages</i>	<i>Goods</i>	<i>Total Direct Impact</i>	<i>Indirect</i>	<i>Total</i>	<i>+Tax²⁷</i>	<i>Total</i>
Farm(breed/train)	9.67	31.73	41.40	41.40	82.80		
Backstretch	21.75	15.07	36.82	36.82	73.64		
Track Ops/Teletheatre	5.31	10	15.31	15.31	30.62		
Total	36.73	56.8	93.53	93.53	187.06	4.26	191.32

²⁷ When people in the industry spend money or buy goods they create economic spinoff throughout the economy. More detailed input-output studies have estimate these indirect benefits to be of the same magnitude as the direct benefits in industries such as agriculture