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Statistics of Animal Care and Use in 197、198 Institutions in Year 2004、2005

Table 1 Performance of IACUC(I) numbers of meetings and protocol reviews according to the classification of institutes

(A) in 2004

Institutes	No.	Meetings		Protocol Reviews			
		Total	Average	Total	Approval	Approval with revision	Non-approval
				(%)	(%)	(%)	(%)
Universities/Colleges	64	120	1.9	1,479	1,042	427	10
				(40)	(70)	(29)	(1)
Industries	48	89	6.7	628	628	0	0
				(17)	(100)	(0)	(0)
Research Institutes	43	86	2.2	659	575	84	0
				(18)	(87)	(13)	(0)
Hospitals	26	40	1.5	519	427	88	4
				(14)	(82)	(17)	(1)
Miscellaneous	16	17	1.1	384	384	0	0
				(11)	(100)	(0)	(0)
Total	197	352	1.8	3,669	3,056	599	14
				(100)	(83.3)	(16.4)	(0.4)

(B) in 2005

Institutes	No.	Meetings		Protocol Reviews			
		Total	Average	Total	Approval	Approval with revision	Non-approval
				(%)	(%)	(%)	(%)
Universities/Colleges	65	117	1.8	1,825	1,449	356	20
				(46)	(79)	(20)	(1)
Industries	46	88	6.7	549	549	0	0
				(14)	(100)	0	0
Research Institutes	44	101	2.3	577	478	96	3
				(15)	(83)	(17)	0
Hospitals	26	43	1.7	560	485	73	2
				(14)	(87)	(13)	(0)
Miscellaneous	17	23	1.4	412	410	2	0
				(11)	(100)	0	0
Total	198	372	1.9	3,923	3,371	527	25
				(100)	(85.9)	(13.4)	(0.6)

Table2 Performance of IACUC (II): services and supervision

(A) in 2004

Items of Service	No.	Frequency of Service			
		1-5	6-10	11-20	> 20
	(%)	(%)	(%)	(%)	(%)
Consultation on experimental design	67	45	9	6	7
	(20)	(67)	(13)	(9)	(11)
Suggestion on animal care	86	78	4	4	0
	(25)	(90)	(5)	(5)	(0)
Inspection of animal facility	121	97	3	9	12
	(35)	(80)	(3)	(7)	(10)
Improvement of animal cares	62	57	2	3	0
	(18)	(92)	(3)	(5)	(0)
Termination of animal experimentation	7	6	1	0	0
	(2)	(86)	(14)	(0)	(0)
Total	343	283	19	22	19
	(100)	(83)	(6)	(6)	(5)

Table2 Performance of IACUC (II): services and supervision

(B) in 2005

Items of Service	No.	Frequency of Service			
		1-5	6-10	11-20	> 20
	(%)	(%)	(%)	(%)	(%)
Consultation on experimental design	69	53	7	3	6
	(19)	(77)	(10)	(4)	(9)
Suggestion on animal care	85	77	4	1	3
	(24)	(91)	(5)	(1)	(3)
Inspection of animal facility	137	115	1	8	13
	38	84	1	6	9
Improvement of animal cares	62	56	1	3	2
	(17)	(90)	(2)	(5)	(3)
Termination of animal experimentation	6	5	1	0	0
	(2)	(83)	(17)	(0)	(0)
Total	359	306	14	15	24
	(100)	(85)	(4)	(4)	(7)

Table 3 Numbers of laboratory animals being procured, sacrificed and kept survival

(A) in 2004

Species	Procured		Sacrificed		Survived	
	No.	%	No.	%	No.	%
Rodent	1,015,834	83.4603	947,305	93.25	68,529	6.75
Rabbit	30,035	2.47	28,636	95.34	1,399	4.66
Minimature pig	249	0.02	146	58.63	103	41.37
Pig	5,007	0.41	3,252	64.95	1,755	35.05
Cattle	994	0.08	38	3.82	956	96.18
Sheep/Goat	1,172	0.10	91	7.76	1,081	92.24
Horse	38	0.00	5	13.16	33	86.84
Deer	98	0.01	1	1.02	97	98.98
Chicken/ embryo	30,084	2.47	21,698	71.12	8,386	27.88
Duck/embryo	9,805	0.81	5,106	52.08	4,699	47.92
Goose	2,743	0.23	682	24.86	2,061	75.14
Bird	58	0.00	5	8.62	53	91.38
Dog	585	0.05	325	55.56	260	44.44
Cat	56	0.00	46	82.14	10	17.86
Non-human Primate	27	0.00	4	14.81	23	85.19
Other mammal spp	21	0.00	21	100.00	0	0.00
Fish	117,266	9.63	86,236	73.54	31,030	26.46
Amphibian	2,600	0.21	2,272	87.38	328	12.62
Reptile	475	0.04	132	27.79	343	72.21
Total	1,217,147	100.00	1,096,001	90.05	121,146	9.95

Table 3 Numbers of laboratory animals being procured, sacrificed and kept survival

(B) in 2005

Species	Procured		Sacrificed		Survived	
	No.	%	No.	%	No.	%
Rodent	977,103	78.97	895,071	91.60	82,032	8.40
Rabbit	34,643	2.80	32,611	94.13	2,032	5.87
Ferret	28	0.002	28	100.00	0	0.00
Minimature pig	82	0.01	37	45.12	45	54.88
Pig	6,239	0.50	2,904	46.55	3,335	53.45
Cattle	891	0.07	14	1.57	877	98.43
Sheep/Goat	1,163	0.09	56	4.82	1,107	95.18
Horse	63	0.01	7	11.11	56	88.89
Deer	17	0.00	3	17.65	14	82.35
Chicken/embryo	53,632	4.33	42,763	79.73	10,869	20.27
Duck/embryo	7,819	0.63	3,703	47.36	4,116	52.64
Goose	3,693	0.30	366	9.91	3,327	90.09
Bird	170	0.01	90	52.94	80	47.06
Dog	336	0.03	200	52	136	40.48
Cat	100	0.01	91	91.00	9	9.00
Non-human Primate	50	0.00	44	88.00	6	12.00
Other mammal spp	20	0.00	0	0.00	20	100.00
Fish	145,661	11.77	97,631	67.03	48,030	32.97
Amphibian	4,772	0.39	4,307	90.92	465	9.74
Reptile	855	0.07	235	27.49	620	72.51
Total	1,237,337	100.00	1,080,161	87.30	157,176	12.70

Table 4 Analysis of animals being terminated according to the ways they died

(A) in 2004

Species	Number of Sacrificed animals	Died in the experiment	Died naturally	Euthanasia			
				Physical methods	Chemical methods		
					Inhalation	Injection	Immersion
(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Rodents	947,305	3,074	19,814	579,807	284,649	59,961	0
	93.25	0.32	2.09	61.21	30.05	6.33	0.00
Rabbit	28,636	52	257	58	14,231	14,038	0
	2.61	0.18	0.90	0.20	49.70	49.02	0.00
Ferret	0	0	0	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mini-pig	146	3	4	23	0	116	0
	0.01	2.05	2.74	15.75	0.00	79.45	0.00
Pig	3,252	97	53	2,795	19	288	0
	0.30	2.98	1.63	85.95	0.58	8.86	0.00
Cattle	38	16	0	10	0	12	0
	0.00	42.11	0.00	26.32	0.00	31.58	0.00
Sheep/Goat	91	81	2	0	0	8	0
	0.01	89.01	2.20	0.00	0.00	8.79	0.00
Horse	5	0	0	0	0	5	0
	0.00	0.00	0.00	0.00	0.00	100.00	0.00
Deer	1	1	0	0	0	0	0
	0.00	100.00	0.00	0.00	0.00	0.00	0.00
Chicken/embryo	21,698	532	192	3,190	17,784	0	0
	1.98	2.45	0.88	14.70	81.96	0.00	0.00
Duck/embryo	5,106	565	0	218	4,323	0	0
	0.47	11.07	0.00	4.27	84.67	0.00	0.00
Bird	5	5	0	0	0	0	0
	0.00	100.00	0.00	0.00	0.00	0.00	0.00
Dog	325	8	0	0	0	317	0
	0.03	2.46	0.00	0.00	0.00	97.54	0.00
Cat	46	3	0	0	0	43	0
	0.00	6.52	0.00	0.00	0.00	93.48	0.00
Nonhuman Primates	4	0	0	0	0	4	0
	0.00	0.00	0.00	0.00	0.00	100.00	0.00
Other Mammals	21	0	0	0	21	0	0
	0.00	0.00	0.00	0.00	100.00	0.00	0.00
Fish	86,236	9,806	25,789	17,683	10,200	510	22,248
	7.87	11.37	29.91	20.51	11.83	0.59	25.80
Amphibian	2,272	41	175	2,045	0	11	0
	0.21	1.80	7.70	90.01	0.00	0.48	0.00
Reptile	132	28	79	25	0	0	0
	0.01	21.21	59.85	18.94	0.00	0.00	0.00
Total	1,096,001	14,448	46,365	605,974	331,653	75,313	22,248
	100.00	1.32	4.23	55.29	30.26	6.87	2.03

Table 4 Analysis of animals being terminated according to the ways they died

(B) in 2005

Species	Number of Sacrificed animals	Died in the experiment	Died naturally	Euthanasia			
				Physical methods	Chemical methods		
					Inhalation	Injection	Immersion
(%)	(%)	(%)	(%)	(%)	(%)	(%)	
Rodents	895,071 (82.86)	8,500 (0.95)	25,256 (2.82)	212,592 (23.75)	571,966 (63.9)	76,417 (8.54)	340 (0.04)
Rabbit	32,611 (3.02)	83 (0.25)	314 (0.96)	70 (0.21)	29,851 (91.54)	2,293 (7.03)	0 (0)
Ferret	28 (0.003)	0 (0)	8 (28.57)	0 (0)	20 (71.43)	0 (0)	0 (0)
Mini-pig	37 (0)	0 (0)	13 (35.14)	0 (0)	0 (0)	24 (64.86)	0 (0)
Pig	2,904 (0.27)	45 (1.55)	243 (8.37)	2,260 (77.82)	0 (0)	356 (12.26)	0 (0)
Cattle	14 (0)	2 (14.29)	0 (0)	12 (85.71)	0 (0)	0 (0)	0 (0)
Sheep/Goat	56 (0.01)	44 (78.57)	2 (3.57)	6 (10.71)	0 (0)	4 (7.14)	0 (0)
Horse	7 (0)	0 (0)	7 (100)	0 (0)	0 (0)	0 (0)	0 (0)
Deer	3 (0)	3 (100)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Chicken/embryo	42,763 (3.96)	1,800 (4.21)	27,176 (63.55)	2,435 (5.69)	11,050 (25.84)	302 (0.71)	0 (0)
Duck/embryo	3,703 (0.34)	476 (12.85)	300 (8.1)	588 (15.88)	2,339 (63.17)	0 (0)	0 (0)
Bird	366 (0.03)	54 (14.75)	0 (0)	132 (36.07)	180 (49.18)	0 (0)	0 (0)
Dog	90 (0.01)	0 (0)	0 (0)	0 (0)	90 (100)	0 (0)	0 (0)
Cat	200 (0.02)	2 (1)	4 (2)	0 (0)	0 (0)	194 (97)	0 (0)
Nonhuman Primates	91 (0.01)	0 (0)	0 (0)	0 (0)	0 (0)	91 (1000)	0 (0)
Other Mammals	44 (0)	0 (0)	0 (0)	0 (0)	0 (0)	44 (100)	0 (0)
Fish	97,631 (9.04)	861 (0.88)	45,928 (47.04)	18,423 (18.87)	0 (0)	0 (0)	32,419 (33.21)
Amphibian	4,307 (0.4)	60 (1.39)	203 (4.71)	3,310 (76.85)	734 (17.04)	0 (0)	0 (0)
Reptile	235 (0.02)	62 (26.38)	0 (0)	26 (11.06)	0 (0)	147 (62.55)	0 (0)
Total	1,080,161 (100)	11,992 (1.11)	99,454 (9.21)	239,854 (22.21)	616,230 (57.05)	79,872 (7.39)	32,759 (3.03)

Figure 1. Numbers of institutes used laboratory animals in Taiwan: according to the classification of institutes

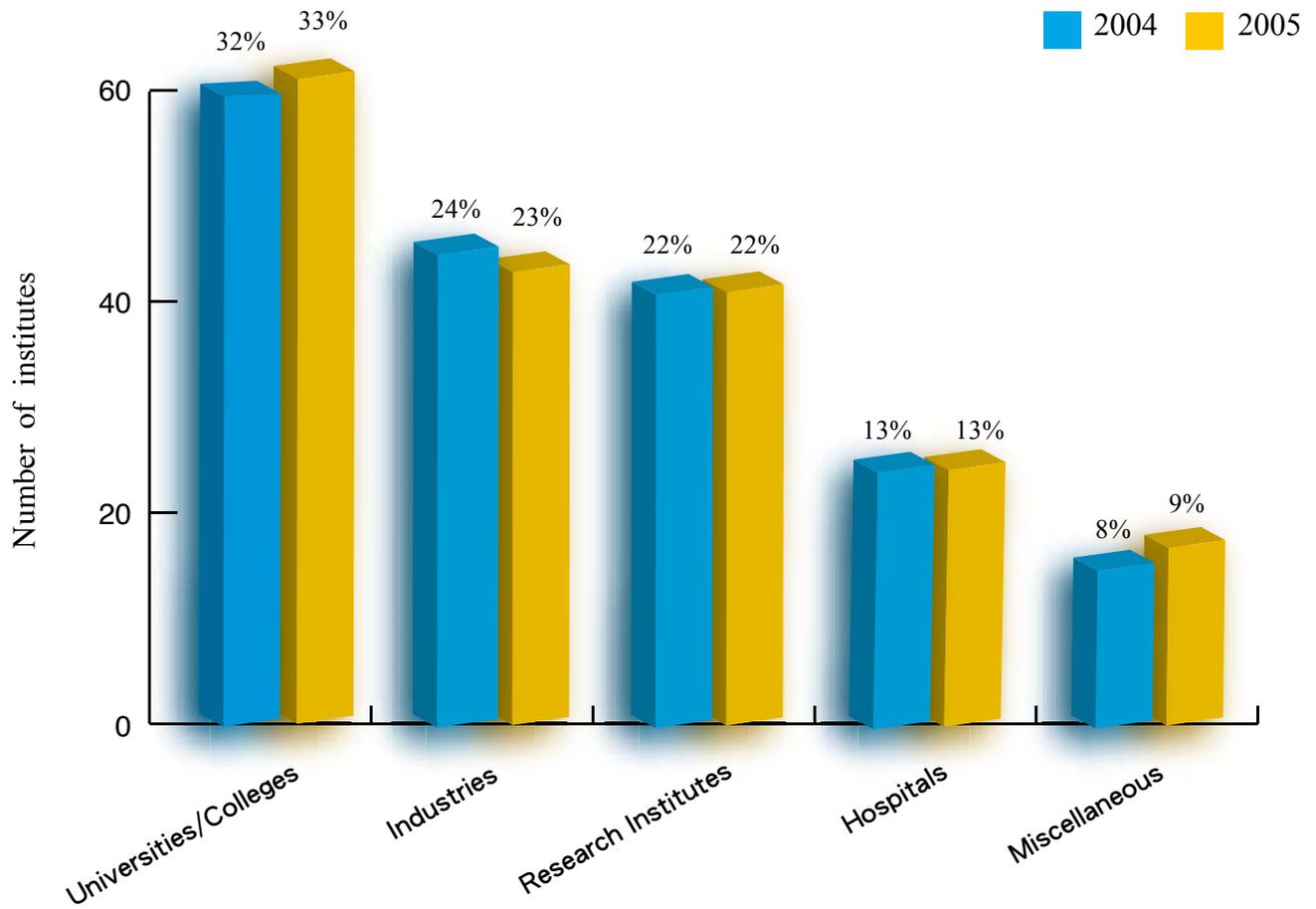


Figure 2. Institutes' laboratory animal facilities: a classification according to the size

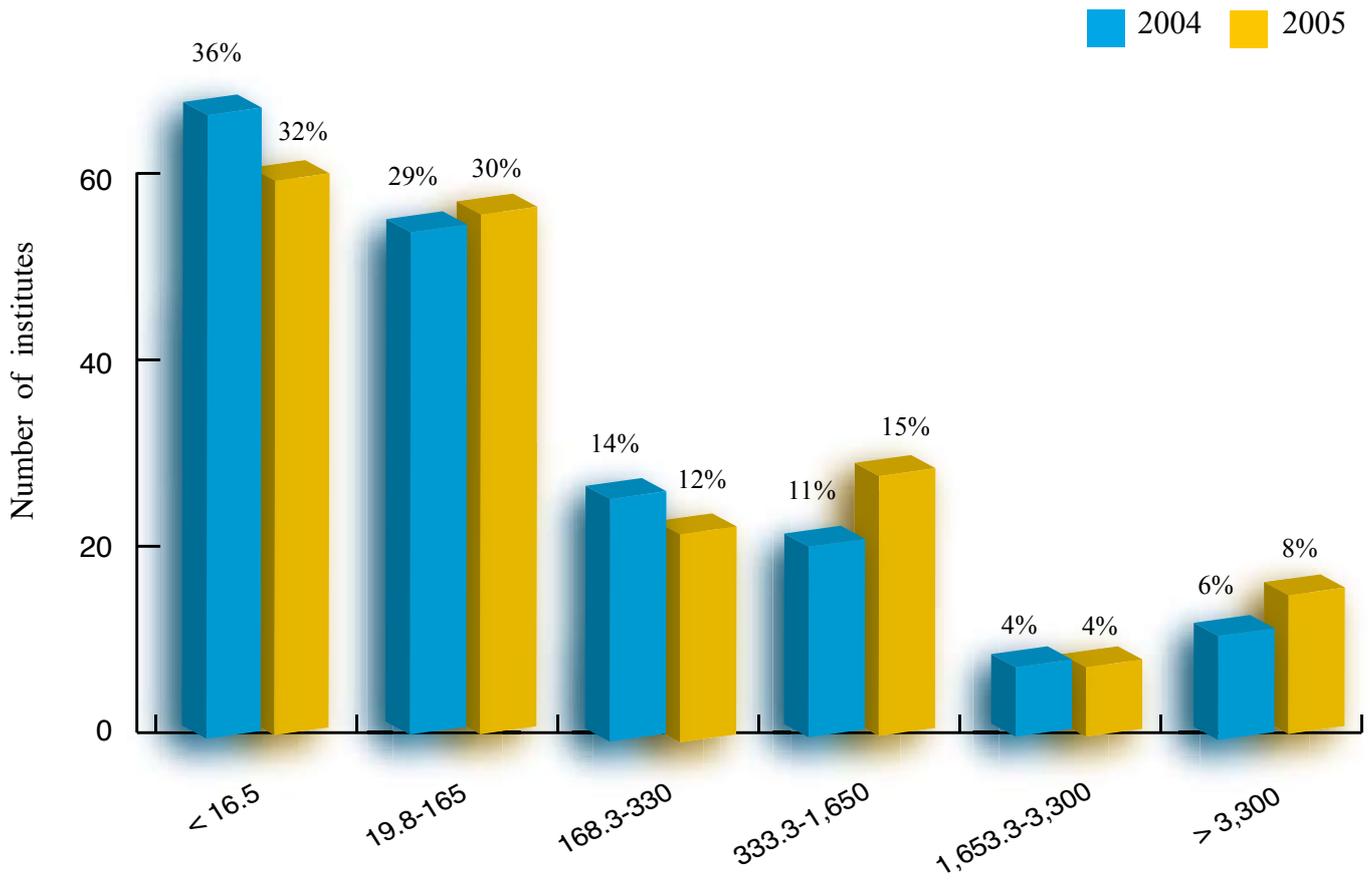


Figure 3. Analysis of animals being used: according to classification of institutions

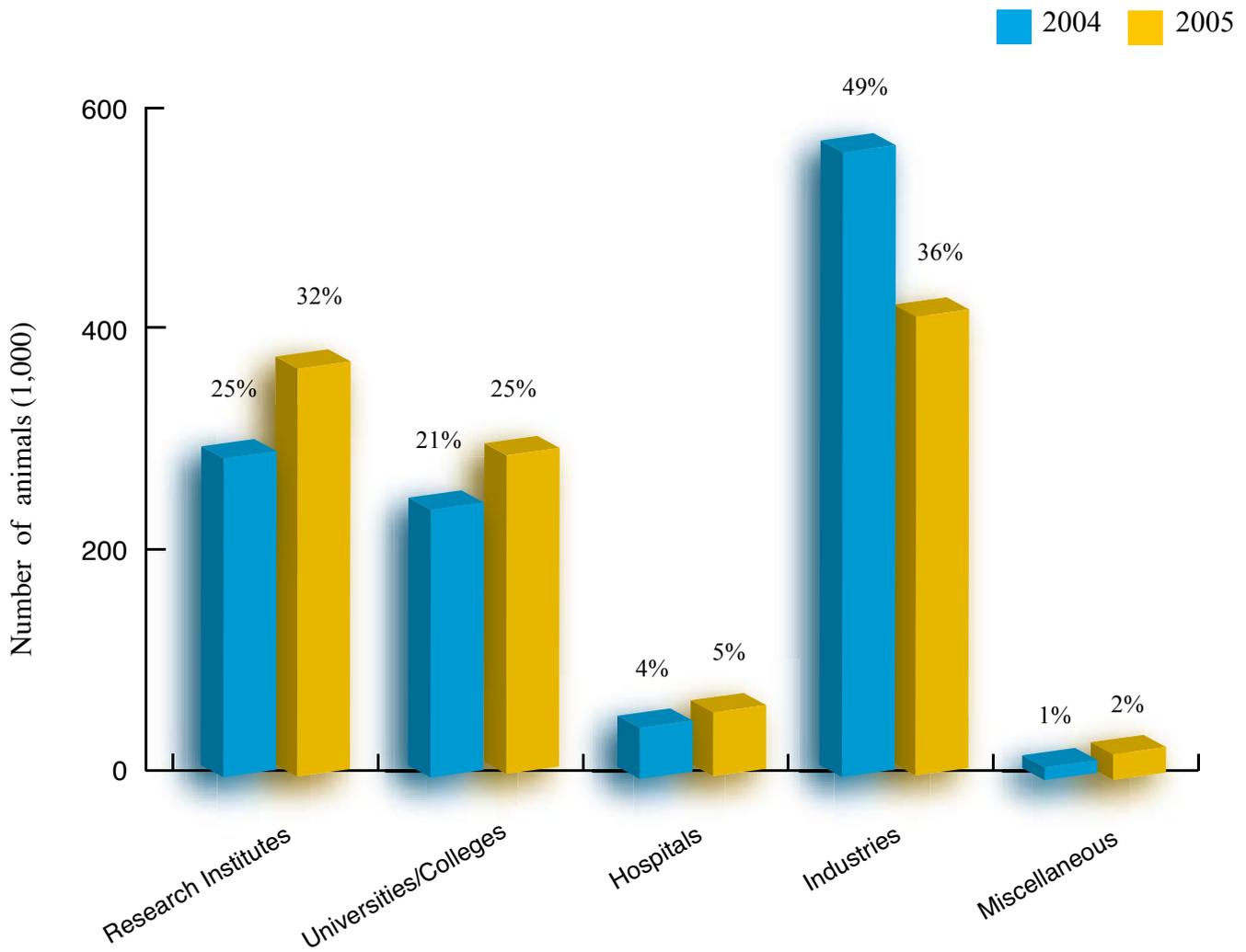


Figure 4. Analysis of animals being used: according to number of animals used by the institutes

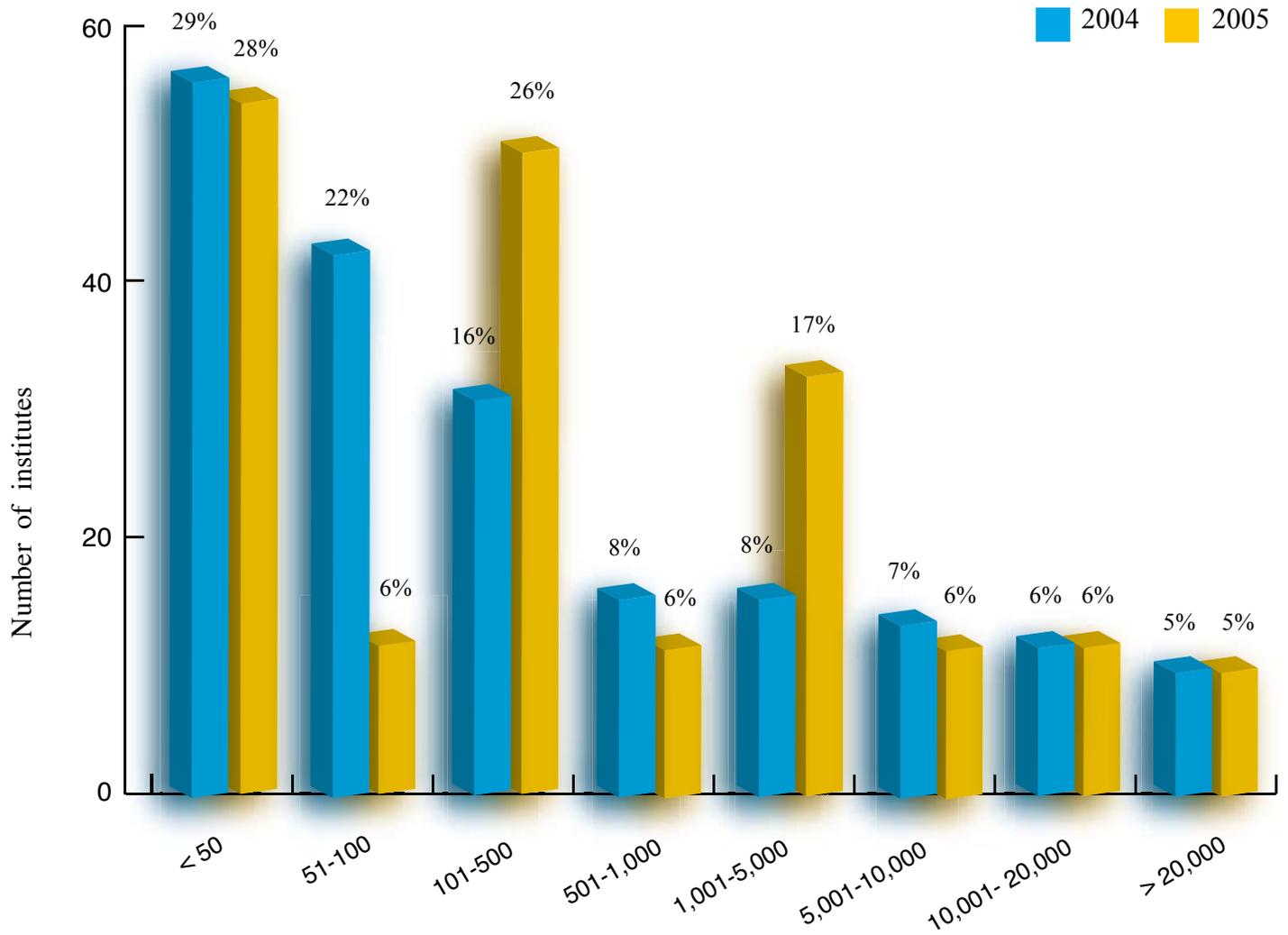
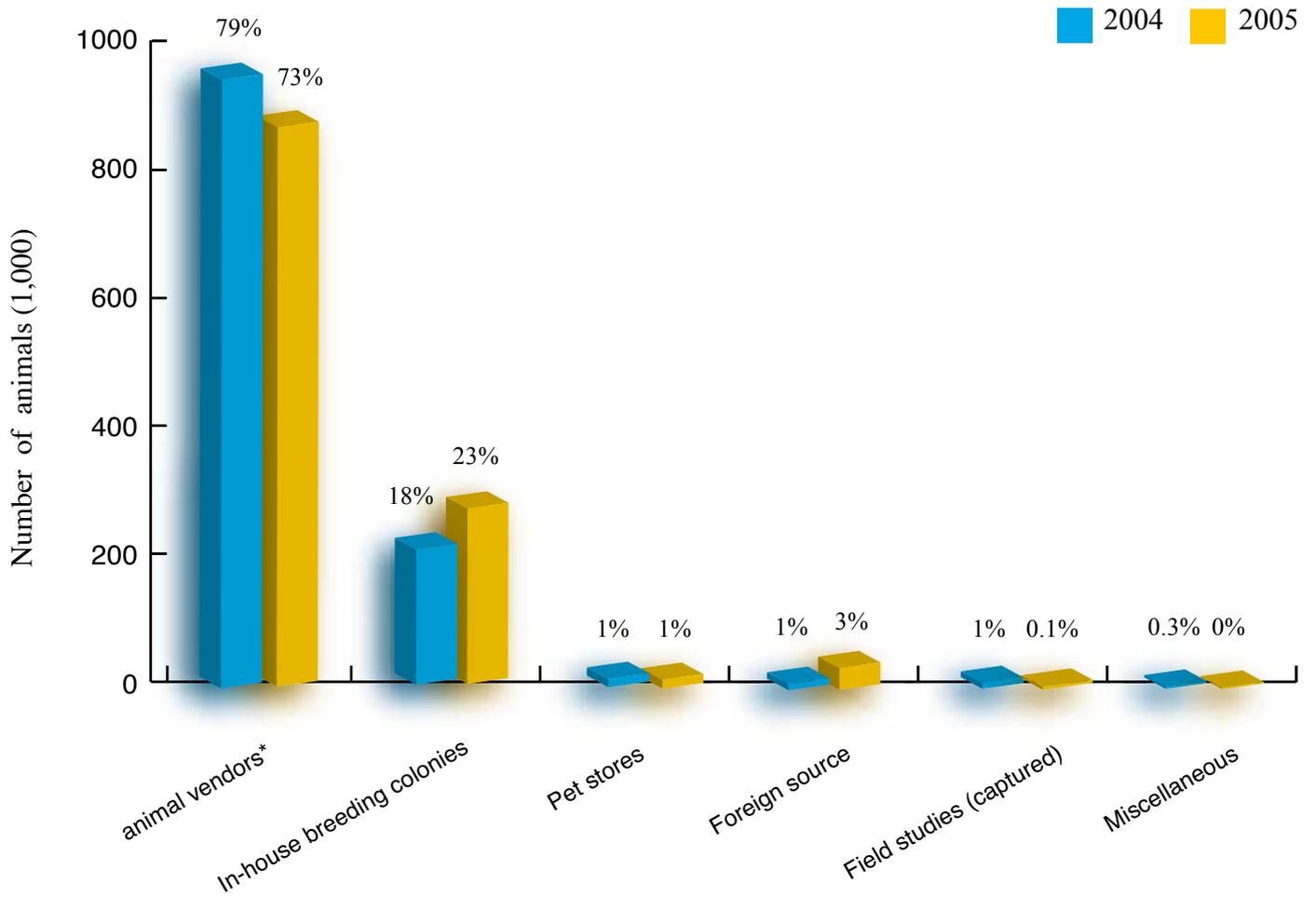


Figure 5. the source of laboratory animals



* the vendors include the SPF and conventional rodent breeders and farm animal suppliers in Taiwan.