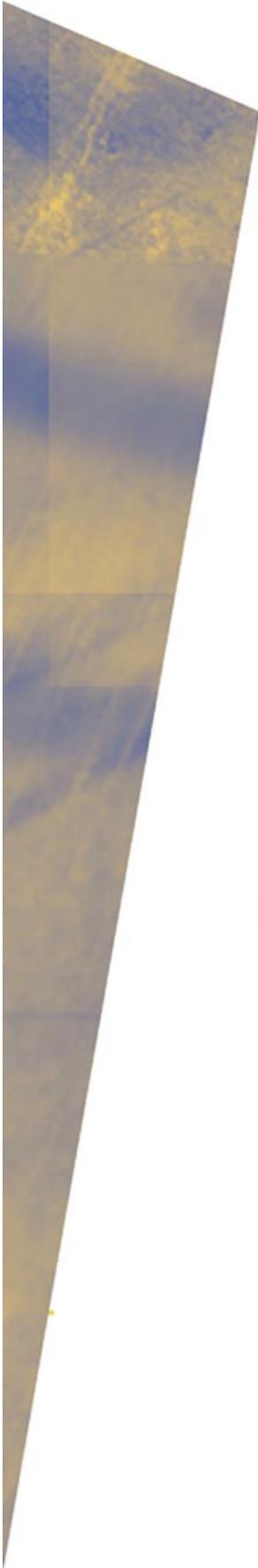


Deliverable 8 Report on Survey Findings

Office of Science Policy
National Center for Research Resources

March 6, 2002

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EXECUTIVE SUMMARY

The National Center for Research Resources (NCRR), National Institutes of Health, commissioned the *National Survey of Nonhuman Primate (NHP) Research Use* to learn about investigator access to nonhuman primate resources at the eight Regional Primate Research Centers (RPRCs) and to assess current and future nonhuman primate needs. Humanitas, Inc., the survey contractor, conducted the survey from June through September 2001 via the Internet and used mail and telephone follow-up procedures.

The survey queried investigators who were identified in NIH databases as having been awarded NIH funds in FY99 for research involving nonhuman primates. The survey population included:

- **Core investigators**, who are located at RPRCs and received RPRC funding during FY99
- **Non-Core investigators**, who accessed an RPRC but did not receive RPRC funding during FY99
- **Other investigators**, who neither accessed an RPRC nor received RPRC funding in FY99

1. Nonhuman Primate Survey Findings Can Promote Understanding of RPRC Access and Nonhuman Primate Needs

Survey data provide a solid basis for understanding RPRC access issues and nonhuman primate usage in FY99. The response rate to the survey is 74%, a high response rate.

The 641 survey respondents mirror the population of NIH-funded investigators involved in research using nonhuman primates in FY99. Within each demographic subgroup—RPRC status, age, gender, and geographic region—survey respondents exist in nearly identical proportions to investigators in the population. The survey respondents also mirror the population in terms of the average dollar amount of a grant or contract, activity codes, administering organizations, and grant and cooperative agreements. The survey findings do not reflect differential response or nonresponse bias. They provide a valid basis for addressing concerns about RPRC access and nonhuman primate usage because the survey respondents are representative of the population of nonhuman primate investigators in FY99.

The respondents are characterized as follows.

- 22% female, 73% male (5% unknown gender)
- 36% under 40 years old, 15% from ages 40 to 60, 29% over age 60 (20% unknown age)
- 183 located in the Northeast, 86 in the Midwest, 219 in the South, 153 in the West (U.S. Census Regions)
- 113 Core, 94 Non-Core, and 434 Other Investigators

Survey limitations include: (1) the data reflect nonhuman primate usage, costs, and experiences in FY99, (2) the accuracy of recall of the investigator respondents for events over two years ago, and (3) the normal variation inherent in all surveys regarding interpretation of questions and response categories.

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2. RPRCs Provide Access to Valuable Nonhuman Primate Resources

Investigators know about RPRCs and use them to access nonhuman primate resources. Ninety-five percent of respondents have heard of an RPRC, and 60% tried to access one in FY99. Nearly half of all respondents used an RPRC to conduct NIH-funded research. Ninety-five percent of those investigators attempting to access an RPRC in FY99 reported that they were *not* denied access. Nearly comparable numbers of each type of investigator—Core, Non-Core, and Other—used an RPRC for their research.

All investigators who used an RPRC gave the highest satisfaction ratings possible to the quality of the nonhuman primate resources (freedom of animals and specimens from disease) and to the availability of desired services (specimens, animal services, and collaborative consultations). They gave slightly lower but still above average ratings to the availability of animals and space (holding space and research lab space). Eighty percent of all respondents state that they would use an RPRC in the next three years, and nearly 90% of those who used an RPRC in FY99 reported they would use one again. The most common reported reason for respondents to not anticipate using an RPRC is the belief that their current facilities are better.

When asked about RPRC access, 42% of respondents provided no comments. Of those who responded, 40% describe the process of accessing RPRC resources negatively, 30% gave positive comments, and 20% indicated needs for more information. The most common negative comments were the limited availability of needed animals and the time required to obtain the animals. The 5% of respondents who reported being denied access to an RPRC (78% of whom are Other scientists) cited reasons for denial of access related to the lack of availability of nonhuman primates—desired species, ages, numbers, and SPF animals.

3. Obtaining Nonhuman Primate Resources is Challenging

Notwithstanding their satisfaction with RPRCs and their resources, investigators say that obtaining nonhuman primates for research is challenging. Although 70% of those using an RPRC reported no difficulties in obtaining nonhuman primate resources and more than 60% received their animals and specimens within one to three months, 30% did have problems. The most cited difficulties related to the availability of animals, specific species, and animals with certain characteristics.

Nearly 75% of whole animal users and 90% of specimen users did not consider animal and specimen costs unreasonable. Specific user-required characteristics of nonhuman primates, such as species and age, most affected costs. Investigators requiring whole animals were more likely to report uncovered costs than those using specimens. Respondents obtained additional funding from various sources to cover unfunded costs. Proportionately more Core than Non-Core and Other scientists covered these costs by sharing costs between multiple grants that they themselves held.

4. Rhesus Macaques are Most Used and Most Needed

The majority of investigators—65% of whole animal users and 60% of specimen users—use the rhesus macaque species. Respondents report using approximately 13,000 whole animals in FY99, and about half of these were rhesus macaques. In FY99, the average (median) cost of a rhesus macaque was \$3,200 and a whole animal of any species was \$3,000. Costs were comparable, whether an RPRC or non-RPRC source supplied the animals, and approximately equal numbers of animals were obtained at RPRC and non-RPRC sources. The average (median) cost of a specimen, regardless of species and type, was \$66 in FY99. The most commonly used specimen was blood.

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More than half of responding investigators will need rhesus macaques for their research in the next three years. Ten percent or fewer respondents will need other nonhuman primate species. About 50% of investigators state that they will need or want genetically-defined and/or SPF animals. More than 50% anticipate needing specialized caging or housing facilities.

5. Respondents Recommend Increasing the Availability of Nonhuman Primates and Improving Nonhuman Primate Allocation Systems

Respondents' most common recommendations for meeting future nonhuman primate needs deal with increasing the availability of nonhuman primates and improving the systems for allocating these scarce resources. Common specific suggestions are:

- Increase breeding capacity
- Address the lack of availability of nonhuman primates
- Make nonhuman primates available to those outside RPRCs
- Increase publicity and information about RPRC resources
- Increase funding and/or reduce costs

1. INTRODUCTION

The National Center for Research Resources (NCRR), National Institutes of Health, creates and provides the resources and technologies that biomedical investigators need for research to improve human health. One of the many resources developed and supported by NCRR is the Regional Primate Research Centers Program (RPRC Program). Congress established the RPRC Program in 1960. Its purpose is to complement and support the programs of other NIH components by providing eligible investigators the infrastructure and resources necessary to perform their research. In FY99, the total budget for the RPRC Program was over \$57 million, 38% of which was devoted to AIDS-related research.

The RPRC Program comprises individual research centers (RPRCs) located at eight academic research host institutions throughout the United States. Each RPRC has a unique research emphasis. RPRCs vary as well by the type of facility and animal resources they provide to investigators.

Accessibility to the NCRR RPRCs has been a much-disputed topic. A 1996 Report of the NIH AIDS Research Program Evaluation Working Group of the Office of AIDS Research Advisory Council raised questions about (1) the scientific merit of research conducted by RPRCs and (2) access to RPRC resources. The Working Group contended that core research projects related to AIDS underwent less rigorous scientific review than NIH R01 research applications received from non-core investigators. It stated that “the present NIH funding structure for primate research does not permit all investigators with meritorious ideas equal access to this scarce resource.” Another 1996 review panel said that RPRC resources are not readily available to NIH-funded investigators who are not affiliated with the RPRCs. The panel also concluded that SPF-macaque models had not been productive in drug discovery and recommended that funds be redirected from those efforts.

NCRR sponsored the Survey of Nonhuman Primate Use to respond to concerns that investigators have been denied access to RPRCs. The Survey was conducted to determine both the perception and the reality of RPRC accessibility. Humanitas, Inc., the survey contractor, administered the 42-question survey via Internet, mail, and telephone. Appendix A provides a copy of the survey questionnaire. The results of this survey compliment the July 2000, *Full Scale Evaluation of the Regional Primate Research Centers Program Final Report*, which primarily focuses on defining infrastructure, and examine research performance.

1.1 Report overview

This report summarizes the main findings from the preliminary and more comprehensive *Report on Data Analysis and Interpretation*. It summarizes all findings of interest and significance and includes all pertinent figures. This report contains three chapters:

- **Chapter 1, Introduction.** This chapter discusses the survey objectives and the population and sample characteristics.
- **Chapter 2, Summary of Findings.** This chapter summarizes all key findings from the survey and presents documenting figures and data.
- **Chapter 3, Conclusions and Recommendations.** This chapter consolidates the key findings into broad, general conclusions and suggests related recommendations.

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1.2 Population and Sample Characteristics

The survey universe was the population of all investigators involved in NIH-funded research using NHPs during FY99. Eight of these initial 1,136 investigators were deemed ineligible because they were foreign (non-USA business address). A total of 867 investigators confirmed that at least one of their contracts and grants involved the use of NHPs, and thus they were eligible to participate in the survey. Six hundred forty-one investigators responded to the survey, yielding a response rate of 74%. (Please see Appendix A for a complete discussion of the population and sample, numbers of grants and contracts, and usability, eligibility, and response rate calculations.)

Demographics. The respondents mirror the survey population in terms of the basic demographics that were available for the investigators in the NIH databases—RPC status as Core, Non-Core, and Other scientists, age distribution, gender, and geographic region. The percentages of respondents and population members in each of the different demographic groups are nearly identical. (Tests of the chi-square statistic indicate that there are no statistically significant differences between the proportions for any of the groups defined by these demographic variables.) The following figure illustrates this.

Figure 1-1: Comparisons of Respondent and Whole Population Demographics



Population is 1,127 investigators (excluding 9 foreign investigators) involved in NIH-funded research using NHPs in FY99 and 641 respondents for RPC Status and Geographic Location; 888 population members and 515 respondents for Age; 1,071 population members and 609 respondents for Gender.

CONTRACT: N01-OD-7-2116

Task Order 14: Survey of NIH-Funded Investigators Who Use Nonhuman Primates

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Grant and Contract Awards. The respondents also mirror the population in terms of the average dollar amount of a grant or contract. The median size of a grant or contract award for population members is \$252,480. The mean size of a grant or contract award is \$358,421. For respondents, the median size of a grant or contract award is \$257,002, and the mean is \$387,480. The following figure displays summary information about the grant and contract award amounts for the respondents and the survey population. (These statistics are based on only unique and eligible grants and contracts.)

Figure 1-2: Summary Statistics About Grants and Contracts for Respondents and Whole Population

Grants and Contracts	Respondents	Population
Mean Amount	\$387,480	\$358,421
Median Amount	\$257,002	\$252,480
2.5 th Percentile Amount	\$25,000	\$25,000
25 th Percentile Amount	\$154,963	\$144,720
75 th Percentile Amount	\$374,609	\$355,629
97.5 th Percentile Amount	\$1,653,108	\$1,590,046
Total Number	783	1,495
Total Dollar Amount	\$303,397,076	\$535,839,958

Summary statistics for 1,495 unique, eligible population grants and contracts; 783 unique, eligible respondent grants and contracts.

Data Limitations. The data have certain limitations that bound the survey findings. They reflect RPRC access/usage experiences and NHP usage, costs, and acquisition procedures in FY99, the time period for the survey. They also are affected by the accuracy of investigator respondents' recall of events, numbers, and costs from two years ago. Moreover, as in all surveys, there is the normal variation that is due to individual interpretation of questions, response categories, and the amount of detail to provide in verbatim answers.

2. SUMMARY OF FINDINGS

This section of the report summarizes the main findings from the survey.

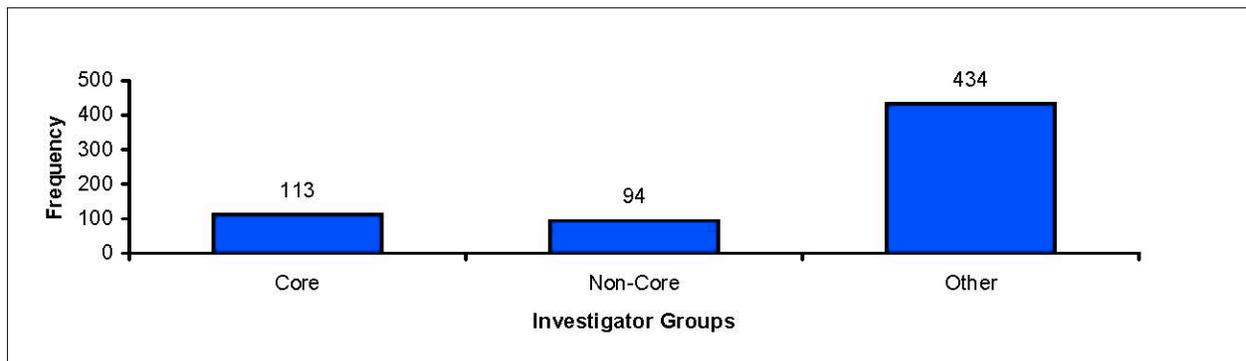
2.1 Survey Respondents

The survey respondents are investigators who have conducted NIH-supported research involving the use of non-human primates during FY 1999. The 641 respondents fall into three groups, based on their relationships with RPRCs:

- *Core investigators* are located at RPRCs and received RPRC funding during FY99.
- *Non-core investigators* accessed an RPRC, but did not receive RPRC funding during FY99.
- *Other investigators* neither had accessed an RPRC nor received RPRC funding in FY99.

The following figure shows the distribution of respondents by their RPRC status.

Figure 2-1: Respondents Classified by Core, Non-Core, and Other RPRC Status



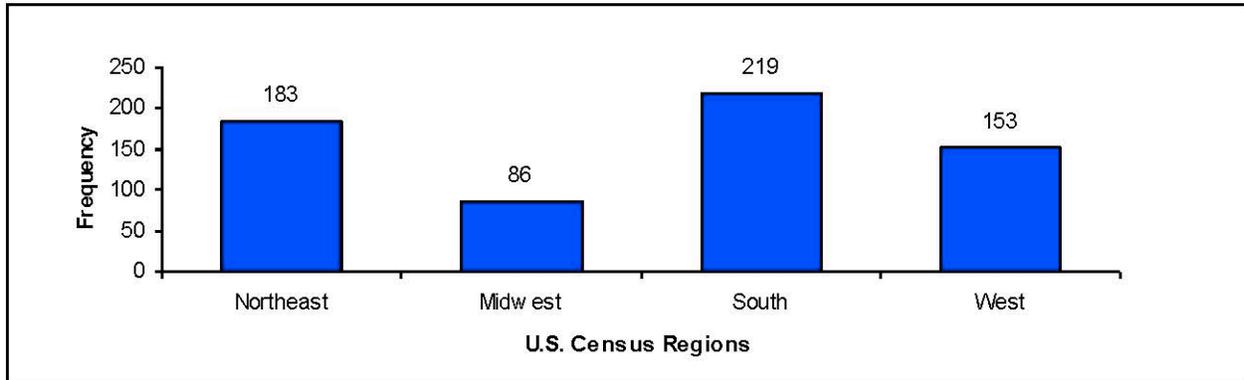
641 total survey respondents: 17.6% Core, 14.7% Non-Core, and 67.8% Other investigators.

The survey respondents are 22% female, 73% male, and 5% unknown gender. Thirty-six percent are under 40 years old, 15% are from 40 to 60, 29% are over 60, and 20% are of unknown age. We obtained this information from the NIH databases because we did not want to include demographic questions in the survey that respondents might believe compromised their anonymity.

We also grouped the respondents into four geographical areas by mapping the states in their business addresses to the U.S. Census region definitions. The following figure shows geographical distribution for respondents.

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Figure 2-2: Respondents Classified by U.S. Census Geographical Regions



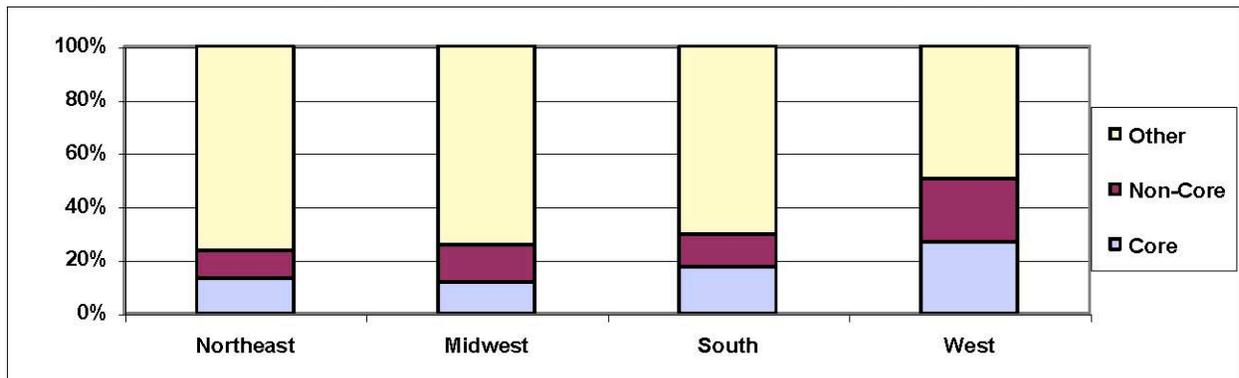
Northeast: ME, NH, VT, MA, RI, CT, NY, NJ, PA; Midwest: OH, IN, IL, MI, WI, MN, IA, MO, ND, SD, NE, KS; South: DE, MD, DC, VA, WV, NC, SC, GA, FL, KY, TN, AL, MS, AR, LA, OK, TX; West: MT, ID, WY, CO, NM, AZ, UT, NV, WA, OR, CA, AK, HI.

The eight RPRCs are located in the following geographical regions:

- **Northeast**—New England RPRC, Harvard University, Southborough, MA
- **Midwest**—Wisconsin RPRC, University of Wisconsin, Madison, WI
- **South**—Southwest RPRC, Southwest Foundation for Biomedical Research, San Antonio, TX; Tulane RPRC, Tulane University, Covington, LA; Yerkes RPRC, Emory University, Atlanta, GA
- **West**—California RPRC, University of California, Davis, CA; Oregon RPRC, Oregon Health Sciences University, Beaverton, OR; Washington RPRC, University of Washington, Seattle, WA

Proportionately more Core and Non-Core investigators are located in the West, where three of the RPRCs are located.

Figure 2-3: Percentages of Core, Non-Core, and Other Scientists by Geographical Location

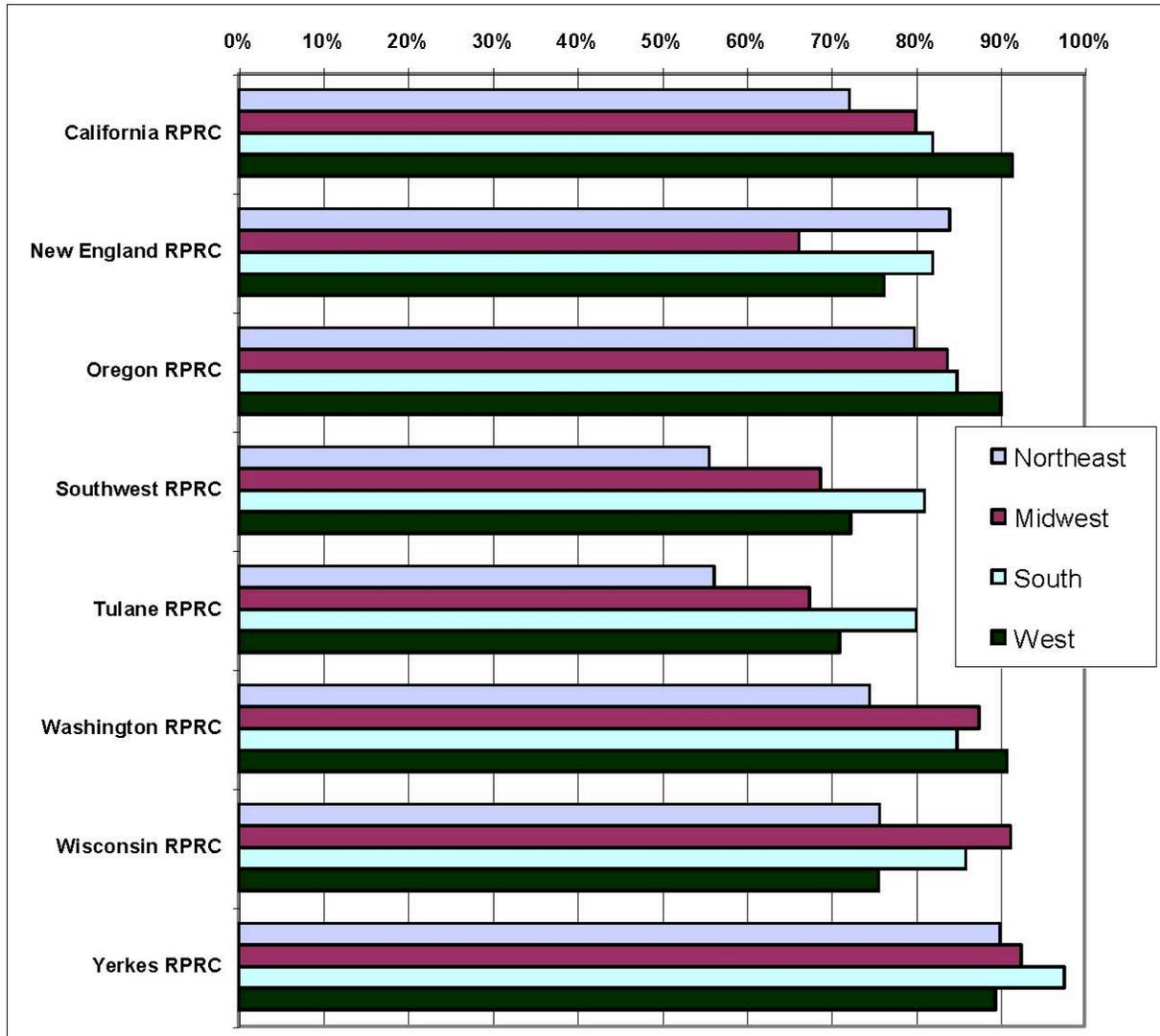


Percentages are of investigators in different locations: 183 in Northeast, 86 in Midwest, 219 in South, and 153 in West.

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Just five percent of investigators using nonhuman primates in FY99 have *not* heard of an RPRC. All of these investigators except one are Other investigators—that is, not Core or Non-Core investigators. The following figure shows the percentages of investigators in each geographic location (defined by U.S. Census Region) who have heard of each RPRC.

Figure 2-4: Investigators in Each U.S. Census Region Who Have Heard of Each RPRC



Percentages are of investigators in different locations who have heard of an RPRC: 169 in Northeast, 80 in Midwest, 205 in South, and 152 in West. 606 of 607 who have heard of an RPRC responded to this item; 1 person did not.

As might be expected, somewhat larger proportions of investigators have heard of the RPRCs that are closer to their own locations. Overall, regardless of location, the large majority of all investigators have heard of all of the RPRCs. The percentages range from the low of 70% who have heard of Tulane RPRC to the high of 93% who have heard of Yerkes RPRC.

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2.2 Access to RPRCs

Ninety-five percent of all respondents have heard of an RPRC, and 60% of these investigators tried to access one in FY99. Proportionately more Core and Non-Core than Other scientists attempted to access an RPRC.

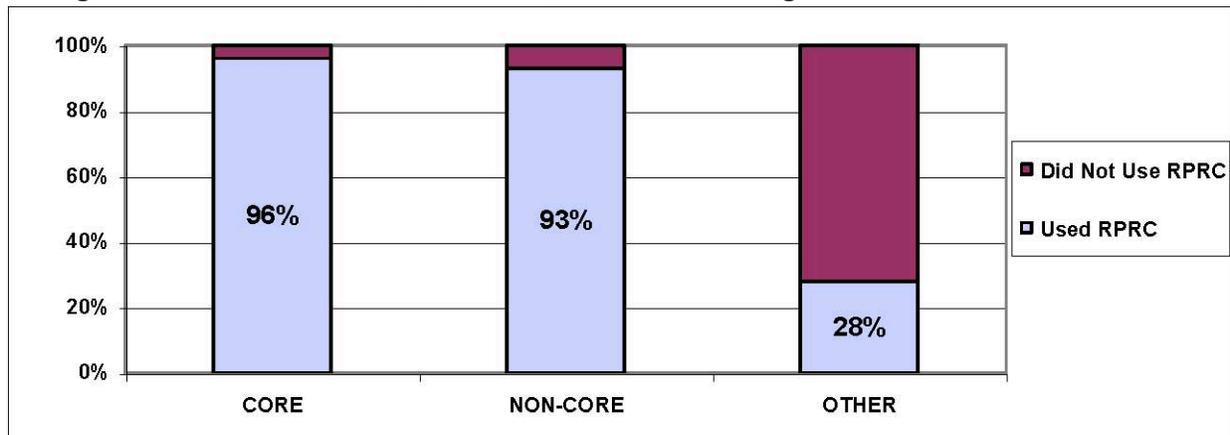
Figure 2-5: Percentages of Investigators Who Tried to Access an RPRC by Investigator RPRC Status

<u>In FY99, did you try to access (use) an RPRC?</u>			
<u>RPRC Status</u>	<u>Yes</u>	<u>No</u>	<u>Total</u>
Core	110	3	113
	97.3%	2.7%	100%
Non-Core	87	6	93
	93.5%	6.5%	100%
Other	170	230	400
	**42.5%	57.5%	100%
Total	367	239	606
	61%	39%	
X ² statistic	161.01		
p	<0.0001** (Statistically significant)		

606 of the 607 respondents who had heard of an RPRC answered this survey item. One did not.

RPRC Usage. Nearly half of all respondents used an RPRC in some way to conduct research supported by their referenced grants and/or contracts in FY99. Although far *larger proportions* of Core and Non-Core investigators used an RPRC in FY99, nearly *comparable numbers* of each type of investigator used an RPRC for their research. The following two figures illustrate this. The first figure shows the percentages of each group of investigators who used an RPRC, and the second shows the numbers of investigators.

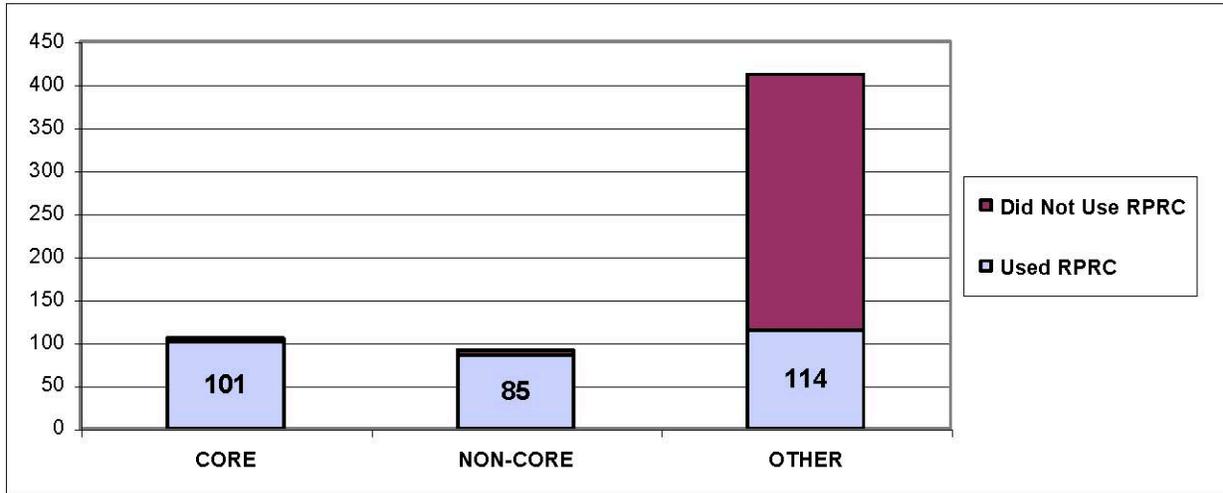
Figure 2-6: Percents of Core, Non-Core, and Other Investigators Who Used an RPRC in FY99



Percentages are of 105 Core, 91 Non-Core, and 412 Other investigators (608 respondents). 33 did not respond to this item.

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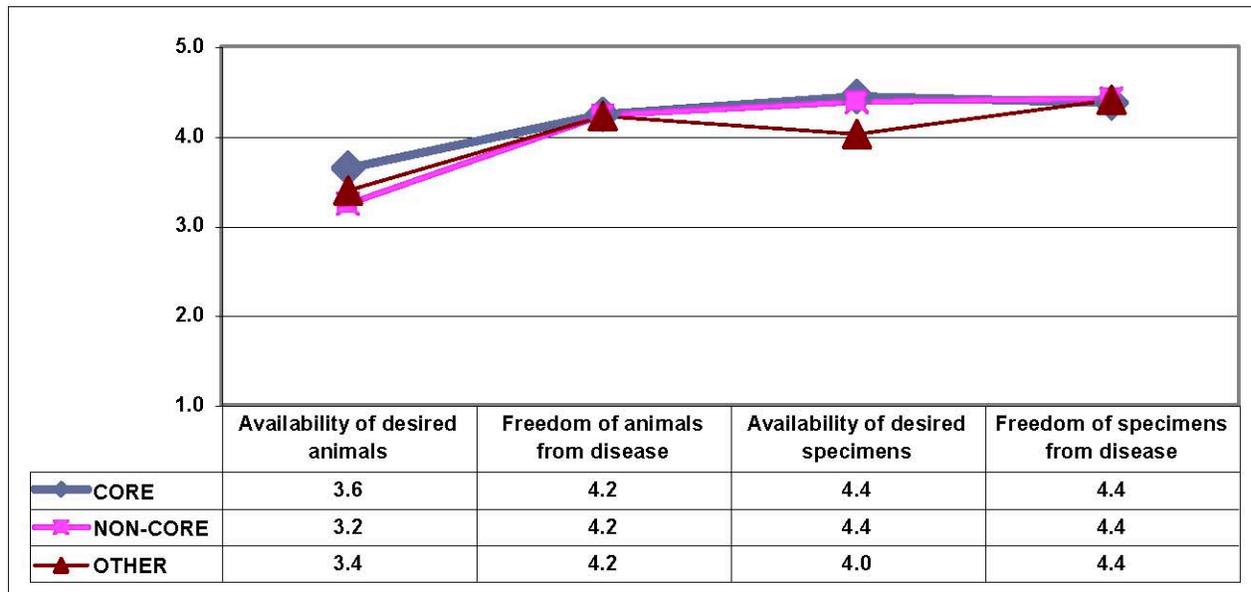
Figure 2-7: Counts of Core, Non-Core, and Other Investigators Who Used an RPRC in FY99



608 of 641 survey respondents answered this item: 105 Core, 91 Non-Core, and 412 Other. 33 did not respond.

Satisfaction. The survey asked those respondents, who used an RPRC in any way during FY99 to conduct research supported by the grants referenced in the survey to indicate how satisfied they were with the RPRC. The following two figures show mean satisfaction for the rated RPRC resources and experiences by RPRC status for 300 investigators (101 Core, 85 Non-Core, and 114 Other). All mean ratings are between the middle rating of 3 and the highest rating of 5, which is “Very Satisfied.”

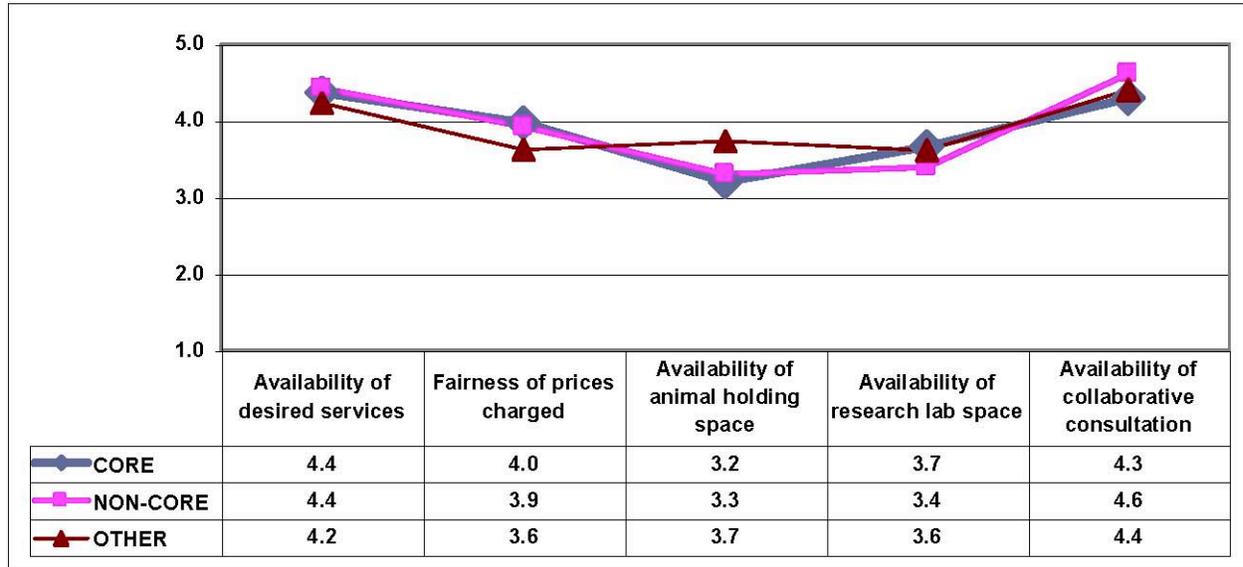
Figure 2-8: Mean Satisfaction With Nonhuman Primate Resources By RPRC Status for Those Who Used RPRCs



Mean satisfaction ratings for 101 Core, 85 Non-Core, and 114 Other investigators (300 total) who used RPRCs in FY99. 5=Very Satisfied, 1=Not Very Satisfied; those responding “not applicable” excluded from graphs. No statistically significant differences between Core, Non-Core, and Other scientists.

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Figure 2-9: Mean Satisfaction With RPRC Services By RPRC Status for Those Who Used RPRCs



Mean satisfaction ratings for 101 Core, 85 Non-Core, and 114 Other investigators (300 total) who used RPRCs in FY99. 5=Very Satisfied, 1=Not Very Satisfied; those responding “not applicable” excluded from graphs. No statistically significant differences between Core, Non-Core, and Other scientists.

Access Issues. The survey collected comments about access to RPRCs and the allocation of nonhuman primate resources using a single, open-ended, neutrally phrased question asked of *all* respondents:

What (if any) are your comments on access to RPRCs, the process for obtaining animals and specimens, and the allocation of resources?

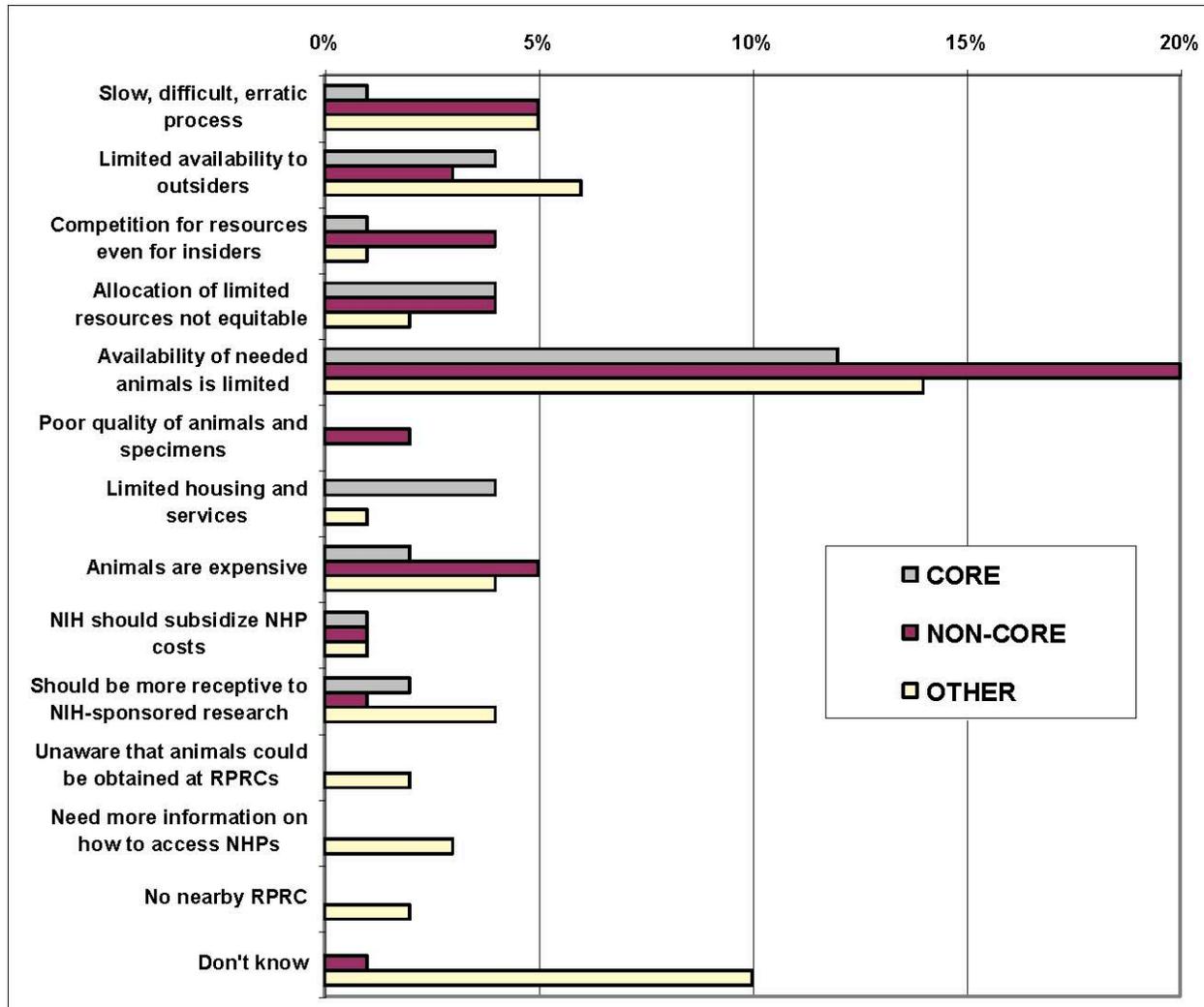
A total of 372, 58% of the 641 survey respondents, answered this question. Respondents contributed from one to five responses in from one to 16 categories. The overall response to this question is summarized in the bulleted list below.

- 42% of *all* of the survey respondents offered no comments on access to RPRCs, the process for obtaining animals and specimens, and the allocation of resources.
- 32% of the 372 who responded to this question gave positive comments that were coded in a single category “relatively easy, straightforward procedure.”
- 41% of the 372 who responded to this question gave negative comments that were coded into ten categories (itemized subsequently).
- 20% of the 372 who responded to this question gave comments indicating a need for more information on accessing nonhuman primate resources and using RPRCs.
- 15% of those who responded to this question gave comments that could not be classified and were coded as “other.”

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The following bar chart shows the various negative and information-need-related comments by investigator RPRC status. The most notable of the comments for all investigators is that the availability of needed animals is limited. Five percent or less of the respondents in any of the three groups offered other comments, with the exception of 10% of the Other investigators who indicated lack of knowledge about these issues.

Figure 2-10: Comments on RPRC Access, Acquiring Nonhuman Primates, Allocating Resources by RPRC Status

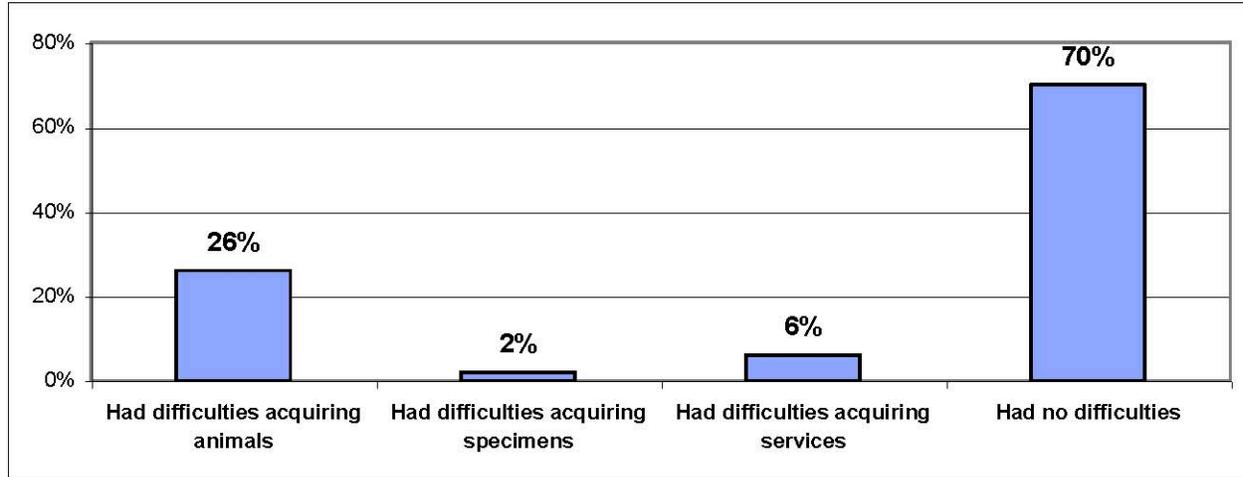


Percentages are of 113 Core, 94 Non-Core, and 434 Other respondents (641 total). Multiple responses per respondent.

Difficulties. Seventy percent of those respondents who *used* an RPRC in any way to conduct NIH-funded research in FY99 reported that they had *no* difficulties acquiring animals, specimens, or services. Of the 89 respondents who had some difficulties, most had difficulties acquiring animals, as shown in the next figure. There are no differences between the proportions who encountered difficulties by RPRC status as Core, Non-Core, and Other investigators.

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Figure 2-11: FY99 RPRC Users Who Had Difficulties Acquiring Resources



Percentages of 300 respondents who used an RPRC in FY99 to conduct research. Multiple responses per respondent, except for those who had no difficulties.

The four difficulties cited by 20% or more of the 89 respondents who reported difficulties acquiring RPRC resources relate to the lack of animals and the length of time it takes to obtain them:

- Not enough animals available
- Some specific species not available
- Animals with specific characteristics not available
- Takes too long to get animals

Reasons for Not Using an RPRC. The survey asked the 367 respondents who tried to access (use) an RPRC in FY99 if they were ever denied access to an RPRC. Ninety-five percent responded that they had not been denied access. Just 5% (18 respondents) said that they had been denied access. (One of the 367 respondents who tried to access an RPRC chose not to answer this item.) Proportionately more Other investigators report having been denied access to an RPRC than do Core and Non-Core investigators. This difference is significant at the 5% level. However, the number of respondents denied access is only 18 overall.

Figure 2-12: Respondents Denied Access to an RPRC by Investigator RPRC Status

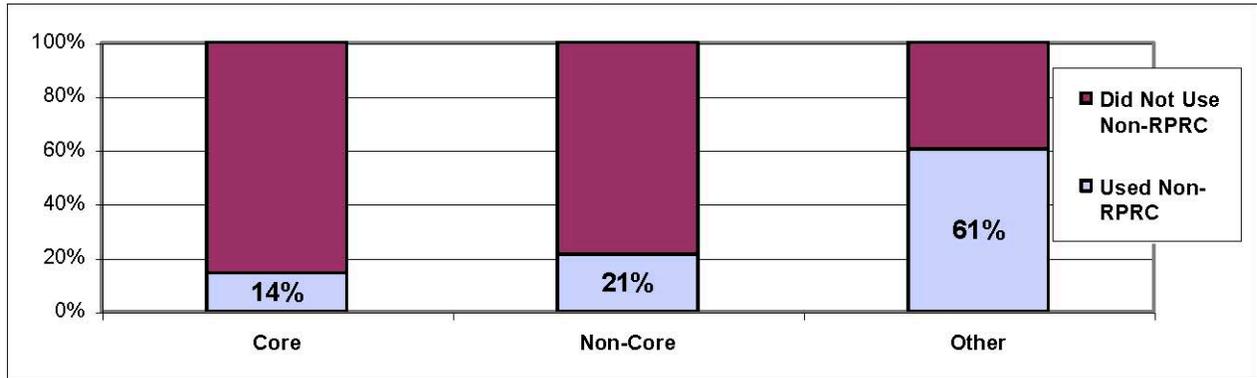
<u>Denied Access</u>	<u>RPRC Status</u>			<u>Total</u>
	Core	Non-Core	Other	
Yes	1	3	14	18
	0.9%	3.4%	** 8.2%	4.9%
No	108	84	156	348
	99.1%	96.6%	91.8%	95.1%
Total	109	87	170	366
	100%	100%	100%	100%
X² statistic	8.13			
p	0.0171	** (Statistically significant)		

Percentages are of 366 respondents who tried to access an RPRC in FY99.

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Forty percent of the 641 survey respondents reported using a nonhuman primate facility other than an RPRC. A significantly greater proportion of Other scientists used a Non-RPRC facility for their NIH-supported research in FY99.

Figure 2-13: Percentages of Respondents Using Non-RPRCs by Investigator RPRC Status



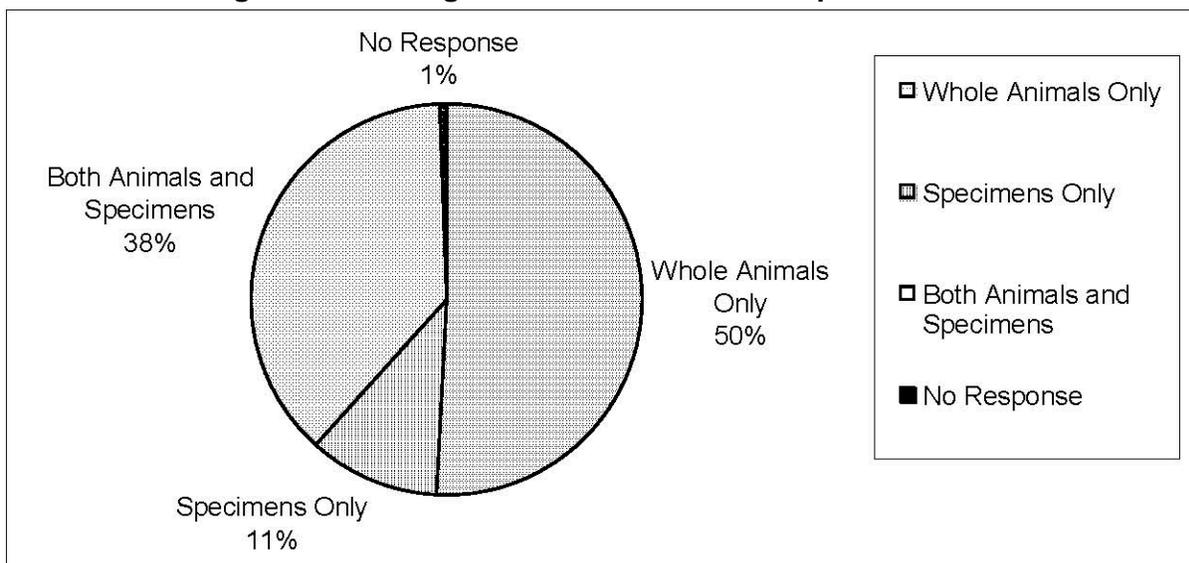
Percentages are of 112 Core, 94 Non-Core, and 433 Other respondents. Two of the 641 respondents did not respond. (Chi square statistic: 104.87, $p < 0.0001$).

Respondents who used Non-RPRC facilities indicated various reasons why they did so. More than 40% of Other investigators reported reasons related to the location of the Non-RPRC facility and the availability of desired species, animal housing, research space, and required numbers of needed animals.

2.3 Nonhuman Primate Research

Nearly all of the respondents use whole nonhuman primate animals, either only whole animals or a combination of whole animals and specimens. The following pie chart illustrates this—about 88% of the nonhuman primate usage involves whole animals or whole animals and specimens. Only 11% of the respondents use only specimens.

Figure 2-14: Usage of Whole Animals and Specimens in FY99



Percentages are of 641 total respondents. Four elected not to answer this item.

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Investigators in the Other grouping use proportionately more whole animals than do Core and Non-Core investigators. The following table shows that nearly 60% of the Other respondents use whole animals only, whereas 32% of Core and 39% of Non-Core respondents use whole animals only. The Core and Non-Core groups use proportionately more of a mix of whole animals and specimens.

Figure 2-15: Relationship of Animal and Specimen Usage to Investigator RPRC Status

<u>Animal and Specimen Usage</u>	<u>Investigator RPRC Status</u>			<u>Total</u>
	Core	Non-Core	Other	
Whole Animals Only	36 31.9%	37 39.4%	252 ** 58.1%	325
Specimens Only	8 7.1%	12 12.8%	50 11.5%	70
Both Animals and Specimens	68 60.2%	44 46.8%	130 ** 30.0%	242
Total	112 100%	93 100%	432 100%	637
X² statistic	41.05	** (Statistically significant)		
p	<0.0001			

Percentages are of 637 respondents who answered this item. Four did not give an answer.

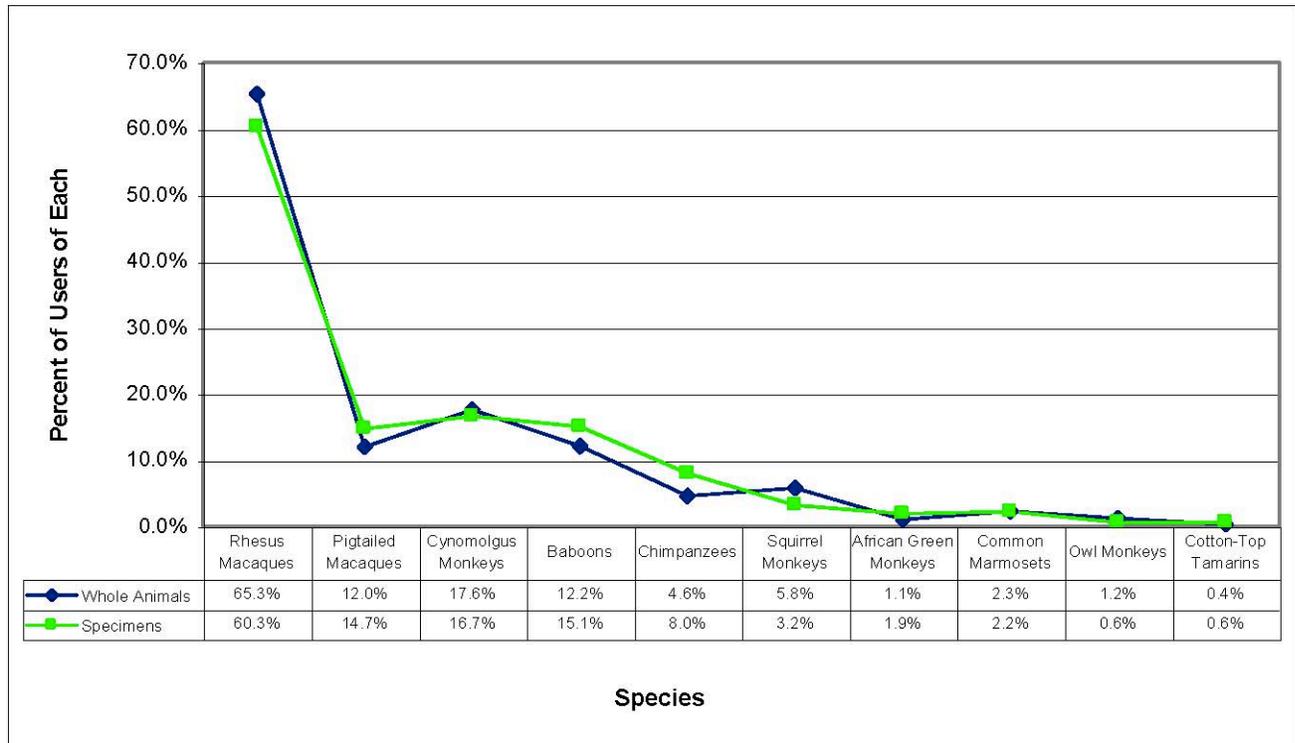
Investigators use nonhuman primates for research in many diverse research areas. The most cited research areas are neuroscience, behavior, physiology, immunology, infectious disease, pathobiology, AIDS, and virology (multiple responses per respondent). Investigators in the top three research areas of neuroscience, behavior, and physiology use higher percentages of whole animals than those in the next five research areas.

Species Used. Respondent investigators used nearly the exact same percentages of each of the nonhuman primate species, regardless of whether or not they required whole animals or specimens for their research. The following figure illustrates this. The data combine information from the survey items asking about the most used, the second most used, and the third most used whole animal species and the data asking about the most used, the second most used, and third most used specimen species. (Approximately 6% of those using whole animals and 6% of those using specimens used diverse nonhuman primates classified as “Others.” Less than 1% of the whole animal and specimen users gave no response to this item. To improve clarity, these two categories are omitted from the graph.)

The most commonly used species, by far, is rhesus macaques (*Macaca mulatta*)—65% of those needing whole animals and 60% of those needing specimens used this species. Much smaller percentages of the respondents used the other species in research. The next three species, in order of use, are Cynomolgus Monkeys, Baboons, and Pigtailed Macaques, which were used by from 12 to 18% of the respondents in their research. Less than 10% of respondents used the remaining species. Blood is the most commonly used type of specimen of nearly all species. Brain and other types of specimens are the next most used types.

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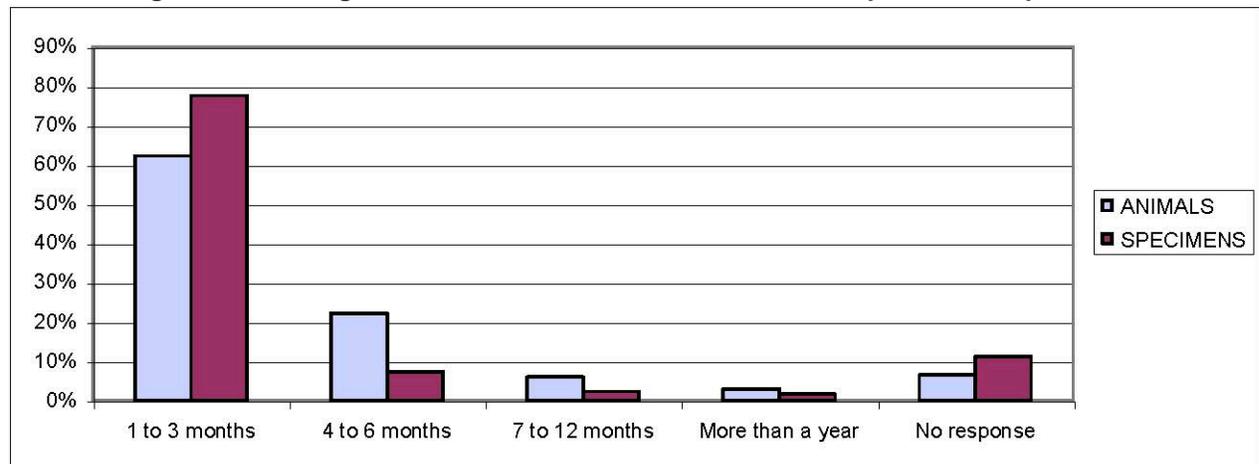
Figure 2-16: Comparison of Whole Animal and Specimen Usage by Species



Percentages are of 567 respondents using whole animals and 312 using specimens (242 respondents use both whole animals and specimens).

Time Frames and Sources. Approximately 60% of the respondents requiring whole animals and 75% of those requiring specimens obtained their nonhuman primate resources within one to three months. Only 3% or less had to wait for more than a year. There are no differences between Core and Non-Core or Core and Other investigators in the length of time to obtain animals and specimens.

Figure 2-17: Length of Time to Obtain Whole Animals Compared with Specimens



Percentages are of (1) 530 respondents who used whole animals and answered this item and (2) 277 who used specimens and answered this item. Thirty-seven using whole animals and 35 using specimens did not respond.

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Respondent investigators acquire nonhuman primate animals and specimens from a variety of organizations, including both RPRC and Non-RPRC sources. The following table shows the distribution of sources between RPRCs and Non-RPRCs for whole animals and specimens.

Figure 2-18: RPRC and Non-RPRC Sources for Nonhuman Primate Resources

Organization	Whole Animals	Specimens
RPRCS	41.6%	55.1%
Non-RPRCS	50.1%	35.3%
Don't Know	1.8%	1.6%
No Response	10.2%	9.9%
Total Respondents	567	312

Percentages are of 567 respondents using whole animals and 312 using specimens.

Numbers and Costs of Animals. Investigators used about 13,000 whole nonhuman primates in their NIH-funded research in FY99. More than half of those animals were rhesus macaques. The average (median) cost per animal, regardless of species, was \$3,000. The following figure shows the numbers of animals used and the average cost per animal by species. The shaded column, showing median cost, is the best single estimate of cost per whole animal. For example, the median cost per rhesus macaque is \$3,200, and 50% of those purchasing rhesus macaques paid between \$2,000 and \$5,639 per whole animal.

Figure 2-19: Average Costs of Nonhuman Primate Whole Animals By Species

"Mean Cost" and "Median Cost" are based on *mean cost per single NHP per respondent*, unweighted by total animals purchased.
 "Cost Per Animal" is based on "Total Costs" / "Total Animals", and is thus affected by total animals purchased.
 Table excludes any amount/cost pairs with missing data and/or \$0 cost for NHP whole animals

Species	Mentions	Total Animals	Total Costs	Cost Per Animal	Mean Cost	Median Cost	25th Percentile	75th Percentile
Rhesus Macaques	317	6,556	\$22,050,581	\$3,363	\$4,024	\$3,200	\$2,000	\$5,639
Pigtailed Macaques	57	1,098	\$2,809,157	\$2,558	\$3,705	\$3,167	\$1,000	\$5,071
Cynomolgus Monkeys	88	1,549	\$3,966,491	\$2,561	\$2,837	\$2,482	\$1,401	\$4,000
Baboons	51	806	\$3,242,820	\$4,023	\$4,349	\$3,542	\$1,757	\$6,000
Chimpanzees	13	363	\$2,040,607	\$5,622	\$11,492	\$9,167	\$938	\$15,000
Squirrel Monkeys	28	1,004	\$1,660,791	\$1,654	\$1,797	\$1,583	\$1,000	\$2,361
African Green Monkeys	6	605	\$1,554,511	\$2,569	\$3,894	\$2,843	\$2,025	\$4,265
Common Marmosets	12	260	\$121,433	\$467	\$1,196	\$562	\$166	\$1,500
Owl Monkeys	4	40	\$49,000	\$1,225	\$2,272	\$1,982	\$879	\$4,125
Cotton-Top Tamarins	1	80	\$55,000	\$688				
Others	25	671	\$1,119,551	\$1,668	\$2,444	\$1,667	\$569	\$4,100
TOTALS	602	13,032	\$38,669,942	\$2,967	\$3,767	\$3,000	\$1,500	\$5,000

Data from 477 of 567 respondents who used whole animals in FY99. Includes data from most used, second most used, and third most used whole animal species. Excludes three outlying values for rhesus macaques. Multiple responses per respondent (602 mentions by 477 respondents). A total of 477 Whole animal users gave these 602 mentions (see figure caption). Thus, we can infer based on 13,032 total animals/477 respondents that about 27 animals per respondent are being used.

The data were analyzed in terms of the *mean cost per single nonhuman primate animal per respondent*. Each respondent contributed a single piece of information to the data set, despite the number of animals that

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he or she may have purchased. This lessened the effects of large purchasers of animals at extreme prices. This approach is also consistent with what we want to know, and what information a respondent can meaningfully supply. We want to know what the average cost of a whole nonhuman primate animal is across all respondents. We are less interested in the special deals that a single large purchaser can make. Also, each respondent, whether a large or small purchaser, can supply information based on only his or her unique purchasing experiences in FY99. Thus, we do not want inadvertent misinformation to unduly affect the average cost of a whole nonhuman primate because a large purchaser misremembers the cost.

The next table shows the average costs of whole animal rhesus macaques for each of the organizations from which investigators acquired these animals in FY99. (We present cost data for individual organizations only for rhesus macaques, because that is the single species used by the majority of respondents. It is also the only species with a sufficiently large number of mentions to permit analysis by subgroups.)

Figure 2-20: Average Costs of Rhesus Macaques by Providing Organization

"Mean Cost" and "Median Cost" are based on *mean cost per single Rhesus per respondent*, unweighted by total animals purchased.
 "Cost Per Animal" is based on "Total Costs" / "Total Animals", and is thus affected by total animals purchased.
 Table excludes any amount/cost pairs or organizations with missing data and/or \$0 cost for NHP whole animals.

Organization Providing	Mentions	Total Animals	Total Costs	Cost Per Animal	Mean Cost	Median Cost	25th Percentile	75th Percentile
<u>RPRCS:</u>								
California	36	618	\$3,050,057	\$4,935	\$4,536	\$4,250	\$2,875	\$5,900
New England	22	323	\$1,012,995	\$3,136	\$4,285	\$3,083	\$2,243	\$6,000
Oregon	16	475	\$1,000,404	\$2,106	\$2,729	\$2,906	\$1,750	\$3,697
Southwest	0							
Tulane	17	491	\$1,755,324	\$3,575	\$3,834	\$2,831	\$2,000	\$3,333
Washington	4	55	\$55,725	\$1,013	\$3,701	\$2,110	\$1,421	\$8,130
Wisconsin	10	291	\$602,000	\$2,069	\$3,384	\$2,667	\$1,667	\$3,750
Yerkes	27	696	\$2,857,794	\$4,106	\$3,499	\$2,191	\$1,042	\$5,000
TOTALS: RPRCS	132	2,949	\$10,334,299	\$3,504	\$3,860	\$3,000	\$2,000	\$5,000
<u>Non-RPRCS:</u>								
Own Institution	9	110	\$259,095	\$2,355	\$2,162	\$2,500	\$1,667	\$2,667
Organization 1	15	246	\$964,002	\$3,919	\$5,017	\$6,111	\$2,750	\$7,000
Organization 2	7	31	\$99,634	\$3,214	\$3,957	\$3,817	\$1,750	\$4,500
Organization 3	12	99	\$276,758	\$2,796	\$3,489	\$3,456	\$2,603	\$4,642
Organization 4	4	59	\$310,000	\$5,254	\$7,361	\$7,500	\$4,861	\$10,000
Other Commercial	27	664	\$1,797,840	\$2,708	\$4,123	\$3,000	\$2,980	\$5,500
Foreign Sources	5	212	\$314,800	\$1,485	\$2,460	\$2,885	\$110	\$3,636
Multiple Sources	16	412	\$1,797,500	\$4,363	\$3,935	\$3,775	\$3,067	\$4,792
Other Sources	47	1,062	\$3,828,542	\$3,605	\$4,562	\$3,333	\$1,708	\$6,000
TOTALS: Non-RPRCS	142	2,895	\$9,648,171	\$3,333	\$4,188	\$3,395	\$2,168	\$5,646
OVERALL TOTALS	274	5,844	\$19,982,470	\$3,419	\$4,030	\$3,200	\$2,000	\$5,500

Data from 271 respondents who used whole animal rhesus macaques and supplied quantity, cost, and source information. Includes data from most used, second most used, and third most used whole animals; multiple responses per respondent (274 mentions by 271 respondents). Excludes three outlying values for rhesus macaques.

The table in the prior figure is structured just like the previous one; thus, the prior explanations hold for this table too. Reiterating the most salient point: The four columns in the table to the right of the vertical line

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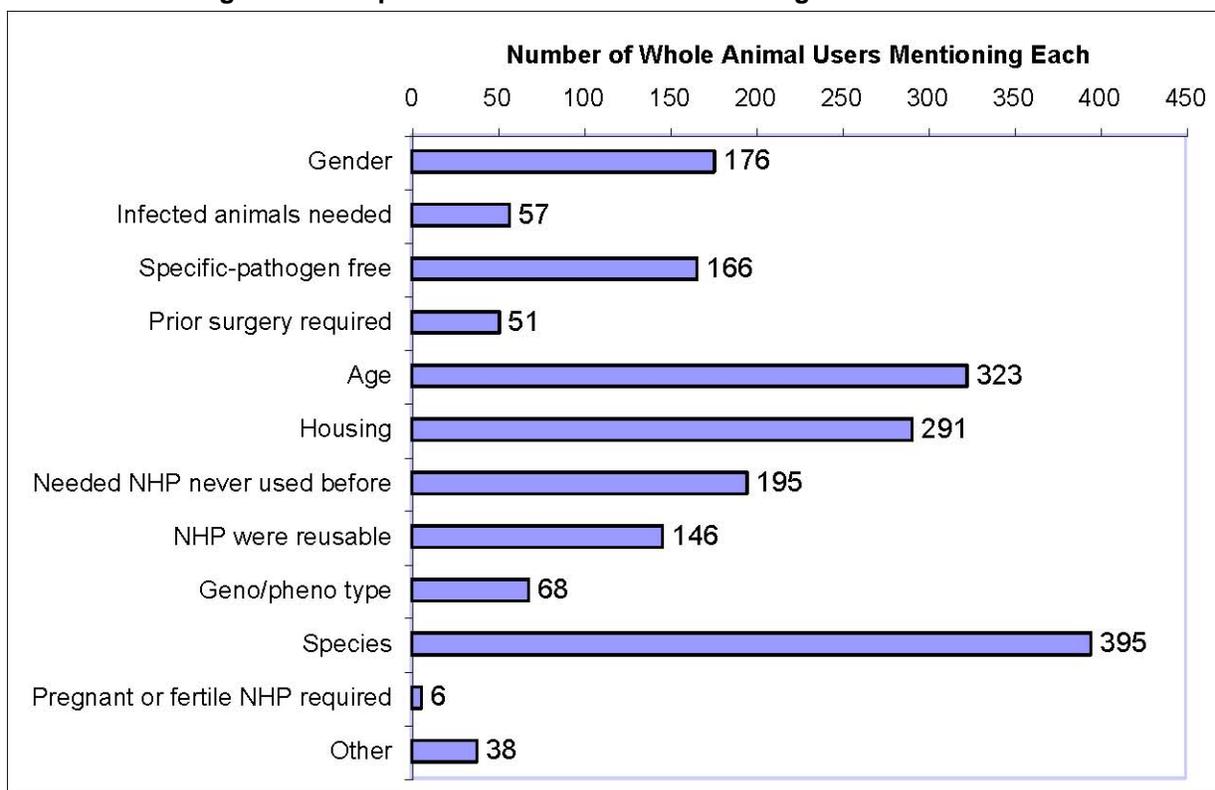
supply the most meaningful information about average costs. These columns are based on the mean cost per single whole rhesus macaque per respondent. The Median Cost (the shaded column) is the best single estimate of the cost per rhesus macaque for each of the providing organizations. (The total number of rhesus macaques in this figure is slightly less than that shown in the previous figure showing all species because some respondents did not name the source supplying their animals.)

From the previous figure, we can see that approximately equal numbers of rhesus macaques are supplied by RPRC and Non-RPRC sources at comparable costs:

	<i>Animals</i>	<i>Cost Per Animal</i>
• RPRCs	2,949	\$3,000
• Non-RPRCs	2,895	\$3,395

Characteristics Influencing Costs. There are large variations in the cost of nonhuman primates. These relate primarily to the specific user-required characteristics of the animals. The following figure shows the specific characteristics that whole animal users cited as influencing the costs of their animals.

Figure 2-21: Specific Characteristics Influencing Whole Animal Costs



Data are from 544 of 567 respondents who used whole animals in FY99. Multiple responses per respondent.

Core, Non-Core, and Other investigators are affected approximately the same—requiring animals with those particular characteristics associated with higher costs is more expensive for all. There are, however, two statistically significant exceptions:

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- Requiring whole animals that had never been used before affects the cost of buying the animals for proportionately *less* Core scientists than Non-Core or other scientists.
- Purchasing whole animals that were reusable affects the cost of buying the animals for proportionately *more* Core scientists than Non-Core or other scientists.

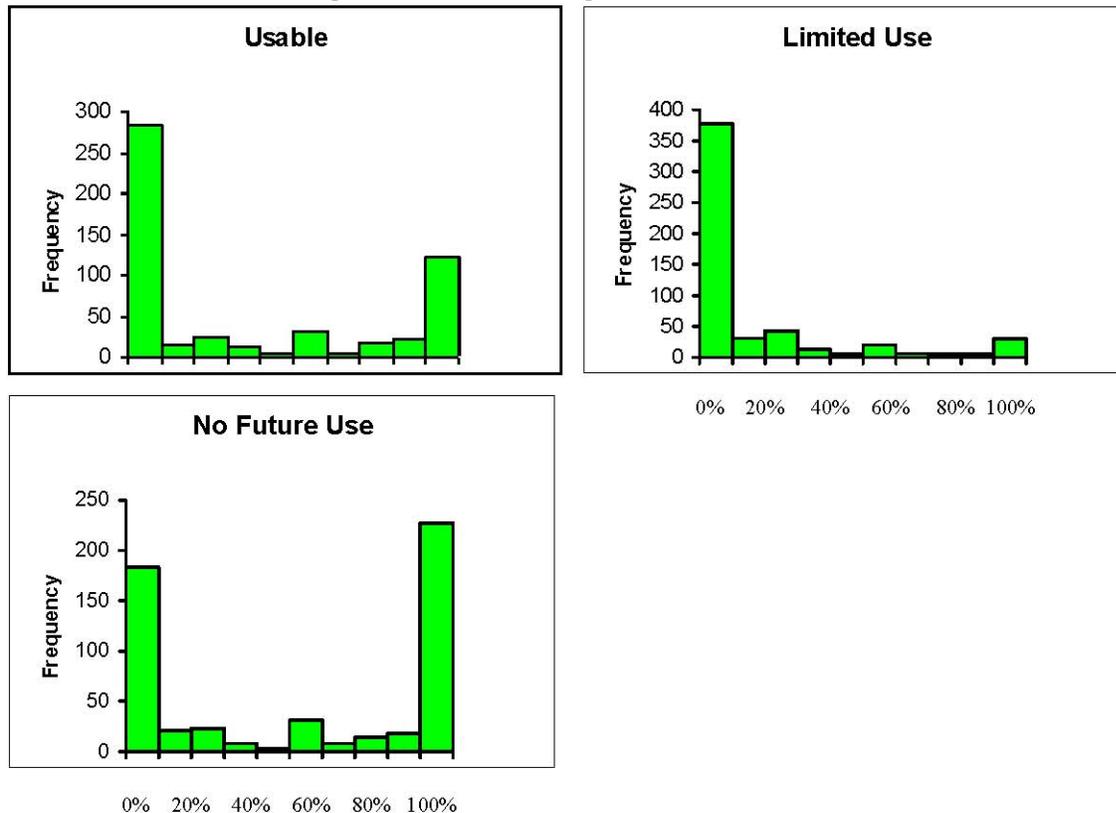
For most investigators, requiring whole animals that have never been used before increases the cost of those animals, whereas being able to reuse existing whole animals reduces the cost.

The following histograms show the frequencies of whole animal users and the percentages of their animals that were usable for future research, of limited future use, and of no future use. The *mean* percentages for these three categories are:

- Animals usable for future research: 34%
- Animals of limited future use: 13%
- Animals of no future use: 53%

The *median* percent (middle value) of animals usable for future research is 0%, as is the median percent of animals of limited future use.

Figure 2-22: Percentages of Animals with Future Use



Data are from 536 of 567 respondents who used whole animals in FY99.

A total of 544 of the 567 investigators requiring whole animals for their FY99 research responded to the survey item asking whether they considered the costs for obtaining or using nonhuman primate animals

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unreasonable. Overall, slightly more than a quarter (27%) considered these costs unreasonable. Proportionately more investigators in the Other group (30%) than in the Core (20%) or Non-Core (20%) groups consider animal costs unreasonable.

Numbers and Costs of Specimens. The survey collected data on the most used, the second most used, and the third most used specimen species and type of specimen combinations—the number of respondents using each species and specimen type combination during FY99, the total number of specimens used per respondent during FY99, and the total cost of all specimens used during FY99. The following figure shows this data aggregated across all respondents using nonhuman primate specimens. The rightmost column shows the median cost per specimen. The median cost per specimen, regardless of species or specimen type, is \$66.

Like the comparable tables showing whole animal quantities and costs, the Median Cost (the shaded column) is the best single estimate of the cost per specimen for each species. It is based on the *mean cost per single species/specimen combination per respondent* to avoid some of the variation caused by purchasers of large numbers of specimens at extreme prices. The unshaded columns show total quantities and costs.

Figure 2-23: Average Costs of Nonhuman Primate Specimens By Species

"Median Cost" is based on *mean cost per single specimen per respondent*, unweighted by total specimens purchased.
 "Cost Per Specimen" is based on "Total Costs" / "Total Animals", and is thus affected by the total specimens purchased.
 Table excludes any species/specimen/amount/costs combinations with any missing data.

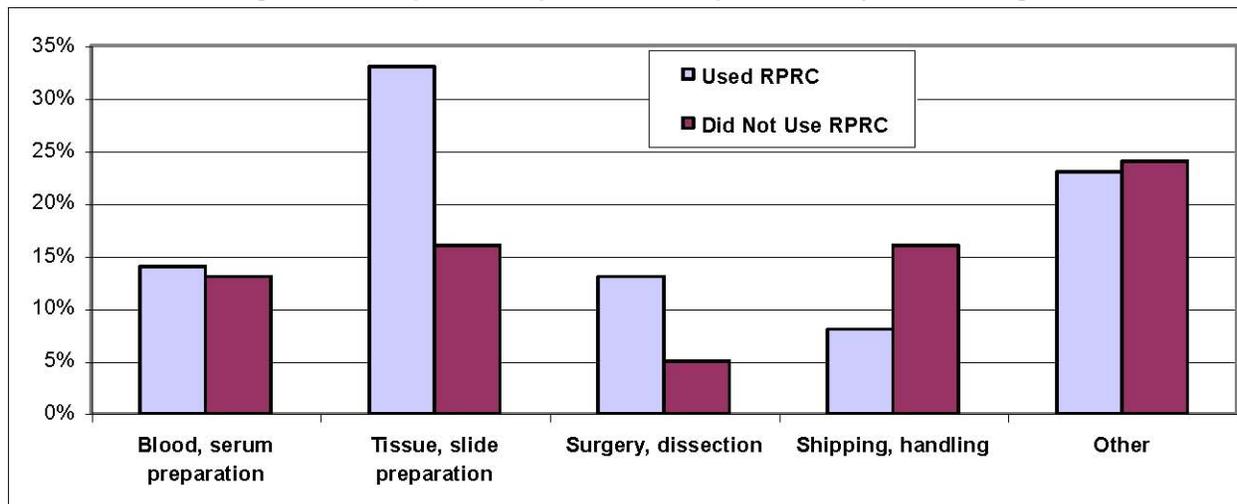
Species	Mentions	Total Specimens	Total Costs	Cost Per Specimen	Median Cost
Rhesus Macaques	118	35,236	\$5,623,465	\$160	\$58
Pigtailed Macaques	30	4,554	\$613,879	\$135	\$81
Cynomolgus Monkeys	26	4,682	\$609,740	\$130	\$116
Baboons	23	1,518	\$529,963	\$349	\$50
Chimpanzees	13	1,081	\$339,700	\$314	\$50
Squirrel Monkeys	6	317	\$500,425	\$1,579	\$2,083
African Green Monkeys	5	1,595	\$319,460	\$200	\$15
Common Marmosets	5	231	\$23,740	\$103	\$67
Owl Monkeys	2	102	\$35,000	\$343	
Cotton-Top Tamarins	2	68	\$6,000	\$88	
Others	18	932	\$167,650	\$180	\$55
TOTALS	248	50,316	\$8,769,022	\$174	\$66

Data are from 242 of 312 respondents who used specimens in FY99. Includes data from most used, second most used, and third most used whole animal species. No outliers excluded. Multiple responses per respondent (248 mentions by 242 respondents).

Characteristics Affecting Costs of Specimens. Forty percent of the 312 respondents whose FY99 research required the use of specimens reported that, in addition to preparation for shipping, the organization providing their specimens specially prepared them. The special preparation was associated with special or additional costs for some investigators. The following figure shows the special preparations of specimens by RPRC usage. There are no significant differences between those investigators who used an RPRC and those who did not in the types of special services provided by the facilities supplying the specimens.

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Figure 2-24: Special Preparations of Specimens by RPRC Usage



Percentages of 125 investigators whose organizations supplying specimens specially prepared them. Multiple responses per respondent.

A total of 292 of the 312 investigators requiring specimens for their FY99 research responded to the survey item asking whether they considered the costs for obtaining or using nonhuman primate specimens unreasonable. Overall, 10% considered these costs unreasonable. In comparison, overall 27% of those using whole animals considered animal costs unreasonable.

Additional Funding Mechanisms. Respondent investigators whose research required the use of whole nonhuman primate animals were more likely to report costs for their animals that were not covered by their grants and contracts than those using only specimens. The following figure illustrates this. The difference between the proportion of respondents reporting uncovered costs and using only specimens from those using only whole animals and from those using both whole animals and specimens is statistically significant.

Figure 2-25: Respondents with Costs Not Covered by the Grants and/or Contracts

<u>Users of:</u>	Yes	No	Mentions	No Response	Respondents
Only whole animals	28.4%	71.6%	317	8	325
Only specimens	** 7.4%	92.6%	68	2	70
Both animals and specimens	26.4%	73.6%	450	34	242

** (Statistically significant difference)

Percentages are of mentions: 317 from those using only whole animals, 68 using only specimens, and 450 using both. Multiple responses per respondent for those using both whole animals and specimens.

Respondents used a variety of additional funding mechanisms to cover unfunded costs. There are no differences between users of whole animals and of specimens in the proportion of funding that they get from different sources. Core scientists obtain proportionately more monies to cover unfunded animal costs than do Non-Core and Other scientists by sharing costs among multiple grants that they themselves held. The next figure shows the additional funding sources used by investigators.

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Figure 2-26: Additional Funding Mechanisms Used by Users of Whole Animals and Specimens

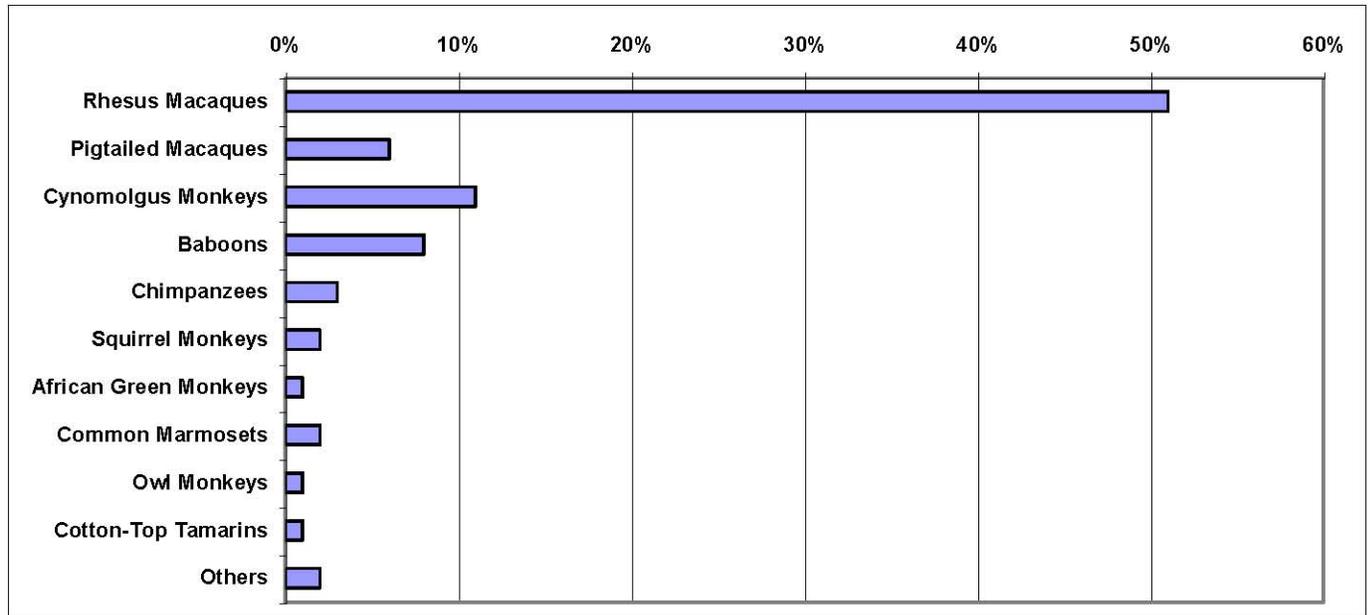
	Whole animals	Specimens
TOTALS	165	49
Grants from non-government organizations	44.2%	53.1%
Direct university or institutional research support	65.5%	55.1%
Forward funding by university or research institution	12.1%	14.3%
Shared costs with other grantees	46.1%	55.1%
Shared costs between this grant and other grants held by self	32.7%	34.7%
Other support by NIH	13.9%	10.2%
Any other support	10.9%	16.3%

Percentages are of 165 whole animal users and 49 specimen users who had costs not covered by their grants or contracts.

2.4 Future Needs

Eighty percent of survey respondents anticipate that their needs for nonhuman primates would increase or continue at the current level. Respondents indicate overwhelmingly that they will need rhesus macaques for their research in the next three years. Over 50% of the responding investigators specified rhesus macaques. Approximately 10% or fewer indicated needs for any other species.

Figure 2-27: Anticipated Needs for Specific Nonhuman Primate Species in Next Three Years



Data are from 556 respondents. Thirty-five respondents did not know future needs. Fifty chose not to respond to this survey item. Multiple responses per respondent.

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Species and Models Needed. These expectations parallel the current usage of nonhuman primate species. The following percentages for current use are based on the most-used whole animal species and are rounded to whole percents (except for percentages less than 1%).

<i>Species</i>	<i>Current Use</i>	<i>Future Need</i>
• Rhesus Macaques	58%	51%
• Pigtailed Macaques	7%	6%
• Cynomologus Monkeys	10%	11%
• Baboons	10%	8%
• Chimpanzees	3%	3%
• Squirrel Monkeys	4%	2%
• African Green Monkeys	1%	1%
• Common Marmosets	1%	2%
• Owl Monkeys	1%	1%
• Cotton-Top Tamarins	.2%	.5%
• Others	2%	2%

Overall, 52% of the responding investigators state that they will need or want genetically-defined and/or SPF (specific-pathogen-free) primates for their research; 48% state that they will not. Approximately 13% of the 641 total respondents did not know their needs with regard to this issue, and 6% did not choose to respond to this item. When we examine this need by subgroups, we find that proportionately more Core than Non-Core or Other scientists anticipate needing genetically-defined or SPF models for their research.

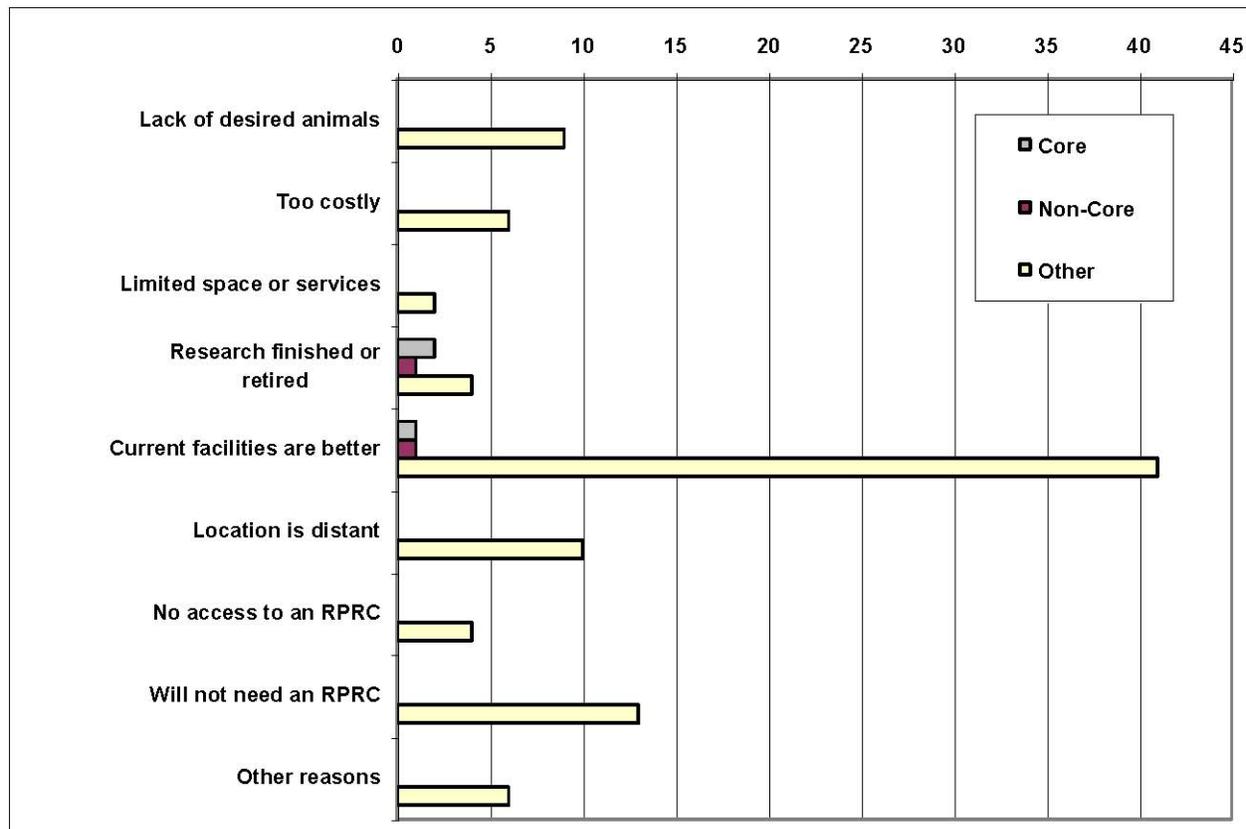
RPRC Usage. Overall, 80% of those respondents answering the item asking if they would use an RPRC in the next three years reported that they would. Several interesting observations emerge when we examine the responses of subgroups:

- Nearly all Core (97%) and Non-Core (98%) scientists would use an RPRC in the next three years. Only 69% of Other scientists would. (Statistically significant difference: Chi-square statistic 55.62; $p < 0.0001$)
- Approximately the same percentages of those respondents who were denied RPRC access (81%) and those who were not denied RPRC access (94%) would use an RPRC in the next three years. (Not statistically significant difference: Chi-square statistic 2.46; $p 0.1170$)
- Nearly all of the responding investigators who used an RPRC for their nonhuman primate research in FY99 (89%) would use an RPRC again in the next three years. Only 32% of those who had not used an RPRC indicate that they would use one in the next three years. (Statistically significant difference: Chi-square statistic 205.06; $p < 0.0001$)

The survey asked those respondents who indicated that they would not use an RPRC in the next three years why they would not. The responses to this open-ended question were coded into categories. Depending upon the breadth and scope of respondents' answers, they contributed one or more responses for this item. The next figure shows the distribution of responses. It is obvious that nearly all those who would not use an RPRC in the next three years are Other scientists, and that the most commonly cited reason is that their current facilities are better. The next most cited reason is that the Other scientists will not need an RPRC. Ten percent or fewer give other reasons.

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Figure 2-28: Counts of Reasons Given for Not Anticipating Using an RPRC in the Next Three Years



Reasons given by 91 respondents who would not use an RPRC in the next three years. Multiple responses per respondent. Two respondents elected not to answer this survey item.

Recommendations. The survey asked all respondents a broad question to elicit recommendations for meeting future needs and general suggestions for improvement:

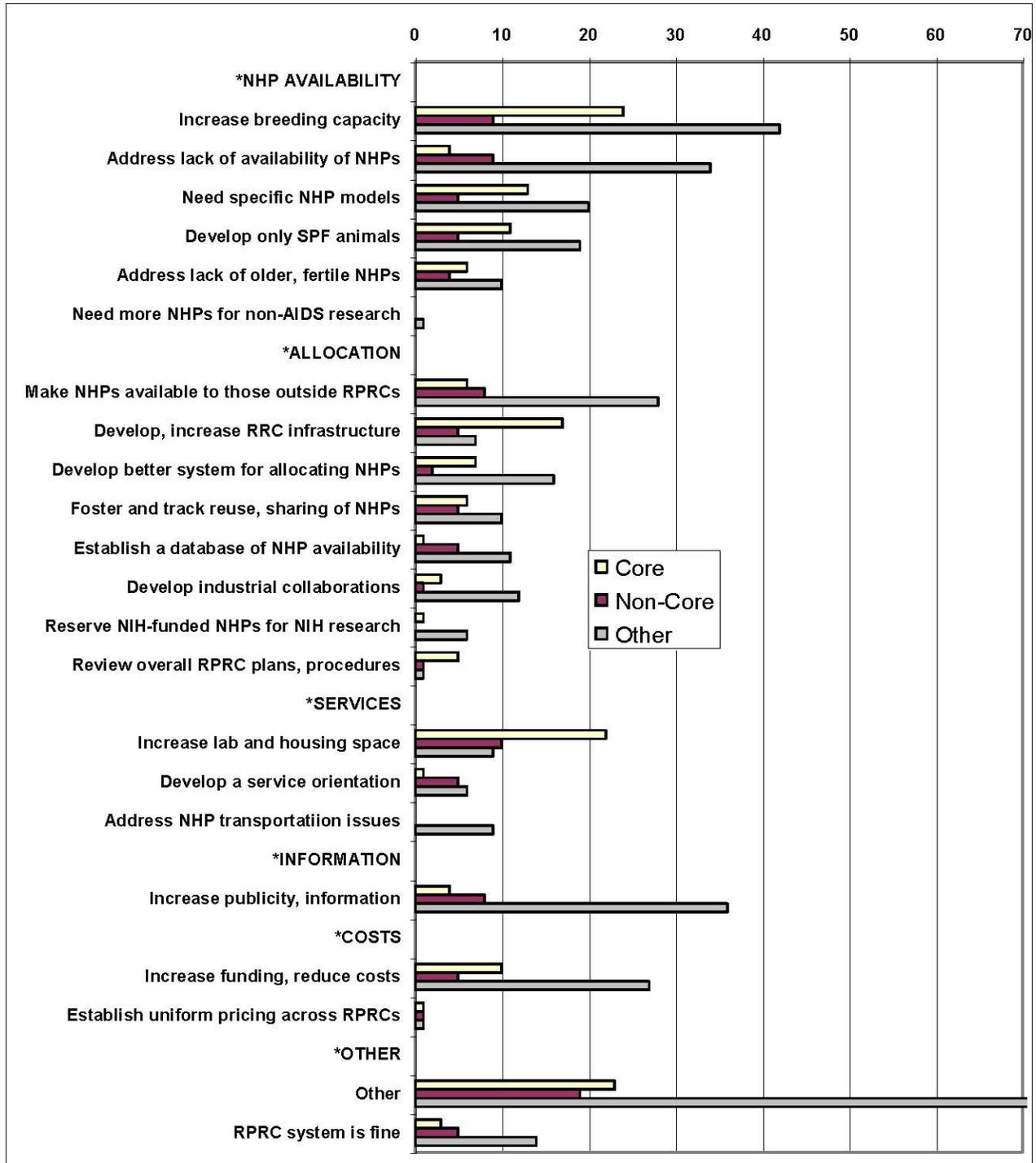
- *What are your recommendations for meeting future nonhuman primate needs within the next three years? Do you have any suggestions for ways to increase collaborative research at the RPRCs, or about ways in which the Centers might better function?*

Sixty-five percent of the respondents (414) provided recommendations in response to this open-ended question. The responses varied greatly in terms of breadth, scope, and specificity, and thus the coding process was complex. Respondents contributed from one to five answers, depending upon the length of their written response and whether or not they elected to address multiple topics.

The responses were grouped into relatively broad categories to present an overall view of the recommendations. The following figure shows the number of mentions for specific recommendations falling into each of these categories for all those who responded. (The categories are flagged with an “*.”)

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Figure 2-29: Counts of Recommendations for Meeting Future Nonhuman Primate Needs by RPRC Status



Data are counts of mentions for 414 respondents: 86 Core, 62 Non-Core, and 266 Other investigators. 227 elected not to answer this item: 27 Core (24%), 32 Non-Core (34%), and 168 Other (39%). Multiple Responses Per Respondent.

3. CONCLUSIONS AND RECOMMENDATIONS

The survey described in this report asked questions about the accessibility of RPRC resources, as well as the current usage (FY99) and future needs for nonhuman primate resources. This chapter presents conclusions and recommendations about RPRC access and nonhuman primate usage that derive from survey findings.

3.1 Nonhuman Primate Survey Findings Can Promote Understanding of RPRC Access and Nonhuman Primate Needs

Survey data provide a solid basis for understanding RPRC and nonhuman primate usage in FY99. The response rate to the survey is 74%, a high response rate. The 641 survey respondents mirror the population of NIH-funded investigators involved in research using nonhuman primates in FY99. Within each demographic subgroup—RPRC status, age, gender, and geographic region—survey respondents exist in nearly identical proportions to investigators in the population. The survey respondents also mirror the population in terms of the average dollar amount of a grant or contract, activity codes, administering organizations, and grant and cooperative agreements.

The survey findings do not reflect differential response or nonresponse bias. They provide a valid basis for addressing concerns about RPRC access and nonhuman primate usage because the survey respondents are representative of the population of nonhuman primate investigators in FY99.

Survey limitations include: (1) the data reflect nonhuman primate usage, costs, and experiences in FY99, (2) the accuracy of recall of the investigator respondents for events over two years ago, and (3) the normal variation inherent in all surveys regarding interpretation of questions and response categories.

Recommendations

- Use survey results to learn about RPRC access and nonhuman primate usage issues in FY99.
- Update the understanding provided by this survey when it is necessary to consider the effects of post FY99 conditions.

3.2 RPRCs Provide Access to Valuable Nonhuman Primate Resources

Investigators both know about and use RPRCs to access nonhuman primate resources. Ninety-five percent of respondents have heard of an RPRC. Sixty percent of these investigators tried to access an RPRC in FY99, and nearly half of all respondents used an RPRC in some way to conduct NIH-funded research.

Ninety-five percent of those investigators who tried to access an RPRC in FY99 reported that they were *not* denied access. Nearly comparable *numbers* of all types of investigators (Core, Non-Core, and Other) used an RPRC for their research.

Investigators rate their satisfaction with their RPRC experiences very highly. All investigators who used an RPRC, regardless of their status as Core, Non-Core, and Other scientists, give the highest ratings (between 4 and 5) to the quality of the nonhuman primate resources (freedom of animals and specimens from disease),

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and to the availability of desired services (specimens, animal services, and collaborative consultation). They give slightly lower but still above average ratings (between the midpoint of 3 and 4) to the availability of animals and space (holding space and research lab space).

Overall, 80% of respondents would use an RPRC in the next three years. Nearly 90% of those who used an RPRC in FY99 would use one again. The most common reason for not anticipating using an RPRC is the belief that their current facilities are better.

Recommendations

- Publicize user satisfaction when promoting RPRCs.
- Encourage RPRCs to assess their current facilities, make improvements as warranted, and promote their facilities' attributes to potential users.

3.3 Obtaining Nonhuman Primate Resources is Challenging

Notwithstanding the general satisfaction with RPRCs and their resources, survey results indicate that accessing nonhuman primate resources is a challenge for many investigators. Although 70% of those using an RPRC reported no difficulties in obtaining nonhuman primate resources, 30% did have problems.

The most commonly cited difficulties relate to the availability of animals, specific species, and animals with certain characteristics. More than 60% of respondents obtained their whole animals and/or specimens within one to three months.

The specific user-required characteristics of animals (species and age) most affected animal costs for all investigators, regardless of their status as Core, Non-Core, or Other scientists. Investigators requiring whole animals were more likely to report uncovered costs than those using specimens.

Respondents obtained additional funding from other sources to cover unfunded costs. Core scientists obtain proportionately more monies to cover these costs by sharing costs between multiple grants that they themselves hold. Requiring whole animals that had never been used before affects the cost of the animals for proportionately fewer Core scientists. Purchasing reusable whole animals affects the cost of buying the animals for proportionately more Core scientists.

Nearly three-quarters of whole animal users did not consider animal costs unreasonable. Of those who did, proportionately more Other investigators (30%) than Core (20%) and Non-Core (20%) investigators considered the costs for obtaining nonhuman primate animals unreasonable. Investigators considered animal costs and care, per diem, and/or vet costs unreasonable. There were no differences among the Core, Non-Core, and Other scientists in the types of costs considered unreasonable.

Only about 10% of specimen users consider specimen costs unreasonable. Proportionately fewer Core scientists are in the subgroup that considers costs for specimens to be unreasonable. More investigators considered specimen costs unreasonable, than preparation/shipping and experimental protocol costs.

Forty-two percent of investigators offered no comments on access to RPRCs. Of those who responded, about 40% describe the process of accessing RPRC resources negatively. About 30% gave positive

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comments and 20% indicated needs for more information on accessing RPRCs. The most common negative comments deal with the limited availability of needed animals and the time required to acquire the animals. Of the 5% of respondents (18) who tried to access an RPRC in FY99 and report being denied access, proportionately more are Other scientists and are located in the northeast. Reasons for denial of access relate to the lack of availability of nonhuman primates—desired species, ages, numbers, and SPF animals.

Survey respondents' most common recommendations for meeting future nonhuman primate needs deal with increasing the availability of nonhuman primates and improving the systems for allocating these scarce resources. The most common specific suggestions are: increase breeding capacity, address the lack of availability of nonhuman primates, make nonhuman primates available to those outside RPRCs, increase publicity and information about RPRC resources, and increase funding and/or reduce costs.

Recommendations

- Alert officials of other nonhuman primate resource supply programs about relevant survey findings. Stress respondents' recommendations and specific suggestions for meeting future nonhuman primate needs. To meet near-term needs, consider implementing allocation strategies that will increase nonhuman primate availability.
- Promote better communication between RPRCs and Other scientists regarding accessing RPRC resources, particularly animal availability and the time required to acquire animals.
- Encourage RPRCs to assess the reasons for differences between perception of the reasonability of costs of animals between Core scientists and Non Core/Other investigators. Encourage RPRCs to follow up these assessments by sharing information that could narrow the gap between the perceptions of Core, Non Core, and Other investigators.
- Assess the number and dispositions of requests for resources and services across RPRCs routinely to ensure that procedures for ensuring equitable access to available resources are in place.

3.4 Rhesus Macaques are Most Used and Most Needed

Overwhelmingly, investigators use rhesus macaque species, regardless of whether their research requires whole animals or specimens. More than half of the responding investigators will need rhesus macaques for their research in the next three years. Sixty-five percent of the respondents needing whole animals and 60% of those needing specimens used this species. Blood is the most commonly used specimen.

Ten percent or fewer respondents will need other nonhuman primate species. About 50% of responding investigators state that they will need or want genetically-defined and/or SPF animals. More than 50% anticipate needing specialized caging or housing facilities.

The survey provides a basis for estimating the cost of acquiring additional whole animals and specimens in FY99. The median cost of a rhesus macaque is \$3,200, and the median cost of any species of whole animal is \$3,000. The median cost per specimen is \$66, regardless of species and specimen type. Special preparation of specimens, such as tissue and slide preparation was associated with special or additional costs for some investigators.

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RPRC and Non-RPRC sources supply comparable numbers of rhesus macaques. The median cost of a rhesus macaque is consistent across most RPRCs and Non-RPRCs.

Recommendations

- Inform administrators concerned with nonhuman primate resource supply about the pressing need for rhesus macaque animals and specimens.
- Inform administrators concerned with projecting the cost of nonhuman primate resources that survey findings about whole animal, specimen, and Rhesus macaque costs may be useful for calculating the cost of increasing nonhuman primate supply.

APPENDIX A: SURVEY METHODOLOGY

A.1 Sample Selection

Population. The sample universe was the population of all investigators involved in NIH-funded research using nonhuman primates during FY99. In the initial sample file, there were 2,754 grants and/or contracts (“records”). Seventy-one percent (1,964) of these were unique grants (line 2 in the following figure)—that is, they had unique identification numbers. Multiple investigators hold multiple grants and, for some grants, multiple investigators are associated with the same grants. The following figure summarizes this information and is referenced in the ensuing discussion.

Figure A-1: Summary of Grants and Persons in the Population and the Survey Respondents

	Population Members		Survey Respondents	
1. Total grants	2,754		1,649	
2. Unique grants	1,964	71% (of 1)	1,090	66% (of 1)
3. Unique eligible grants	1,495	76% (of 2)	783	72% (of 2)
4. Persons	1,136	76% (of 3)	641	82% (of 3)
5. Eligible persons	867	76% (of 4)	641	

Approximately 76% (1,495) of the unique grants involved nonhuman primates (line 3 above), and thus qualified the investigators holding those grants as “eligible” for the survey. We could determine or surmise eligibility only for those investigators who: 1) completed the survey, 2) filled out the initial “grant/contract” question asking about nonhuman primate involvement positively, or 3) did *not* contact us with information that their grant did *not* involve the use of nonhuman primates. Thus, the 76% figure (representing unique eligible grants in the sample) may be a little high. (We do not know about the eligibility of the grants held by those investigators with whom we had no contact.)

There are 1,136 persons in the initial sample file (line 4 above). These people hold the 2,754 grants mentioned earlier. Of these 1,136 persons, 867 were eligible to participate in the survey (line 5 above). These 867 people hold the 1,495 unique eligible grants, with multiple persons associated with some of the grants and multiple grants associated with many of the people. Those investigators associated with the same grants could respond to the survey, providing information about their experiences accessing nonhuman primate resources required for the portion of the work that they did under the grants held by the consortium of investigators.

Respondents. The 641 survey respondents are eligible population members who responded to the survey. These 641 persons are associated with 1,649 grants and/or contracts (line 1 above). Of these 1,649 grants, 66% (1,090) are unique (line 2 above). Seventy-two percent (783) of these unique grants (line 3 above) involved the use of nonhuman primates (were “eligible” grants). Collectively, the 641 respondents answered the survey, keeping in their collective minds, the 783 unique eligible grants. Individually, some investigators kept the same unique eligible grants in mind, and they provided information about *only* the nonhuman primate resources that they themselves used in research supported under the consortium grants.

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A.2 Usability, Eligibility, and Response Rates

Usable sample units are those population members (investigators) with contact information or for whom contact information could be located after extensive tracking efforts. After extensive tracking, including nine or more calls during the telephone follow-up, we deemed those sample units still without contact information unusable. (This included non-working and disconnected telephone numbers and “no such person” responses. It did not include any working telephone numbers, answering machines, or other responses that suggested that the investigator was contactable, although unreachable to date.)

Eligible sample units are those investigators who conducted NIH-sponsored research involving nonhuman primates during FY99, were not residing out of the country, and were not permanently unavailable (deceased, incarcerated, or retired). As discussed earlier, we determined eligibility using the initial “grant/contract” question asking about nonhuman primate involvement or when prospective respondents called to report that they had not used nonhuman primate in their research. The following figure summarizes the disposition of the population, in terms of persons. (The previous figure compared the population and sample grants and persons.)

Figure A-2: Final Disposition of Survey Population—Usability, Eligibility, and Response Rates

	COUNT	PERCENT
TOTAL SAMPLE	1,136	100%
UNUSABLE SAMPLE		
No such person; wrong or disconnected number	89	
TOTAL UNUSABLE SAMPLE	89	8%
USABILITY UNKNOWN	1	
USABLE SAMPLE	1,046	92%
USABLE SAMPLE	1,046	100%
USABLE INELIGIBLE SAMPLE		
No Use of nonhuman primates in FY 1999	165	
Out of country or Non-English speaking	10	
Deceased, retired, permanently unavailable	4	
TOTAL INELIGIBLE	179	17%
ELIGIBILITY UNKNOWN	1	
USABLE ELIGIBLE SAMPLE	867	83%
USABLE ELIGIBLE SAMPLE	867	100%
Refused	226	26%
Completed survey	641	74%
USABILITY RATE		92%
ELIGIBILITY RATE		83%
RESPONSE RATE		74%

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A.3 Instrument Design

Each survey contained an initial screening item to assess respondent eligibility. It contained grants and contracts identified in the NIH databases for that specific investigator as involving nonhuman primate research in FY99. The instructions asked each respondent to confirm that each of the itemized grants and/or contracts involved nonhuman primates and was not a duplicate of another. Eligible respondents—those with at least one grant and/or contract involving nonhuman primates—continued with the survey.

The survey instrument gathered information in these areas.

- **Section A: RPRCs**
Knowledge of RPRCs, attempts at access, denial of access
- **Section B: Non-RPRC Research**
Use of facilities other than RPRCs, reasons for their use, suggestions to improve access to RPRCs
- **Section C: Nonhuman Primate Research**
Research areas, requirements (whole animals or specimens), species, specimen types, costs
- **Section D: Whole Animals**
Process and timing to obtain, difficulties experienced, additional funding mechanisms, housing and services provided, reasonableness of costs
- **Section E: Specimens**
Process and timing to obtain, difficulties experienced, additional funding mechanisms, special preparations and services provided, reasonableness of costs
- **Section F: RPRC Research**
Difficulties in accessing nonhuman primate and/or specimens, satisfaction with availability of desired animals and/or specimens and with services provided
- **Section G: Future Needs**
Anticipated future needs for primates, specific species, specially bred animals, and specialized housing; likelihood of using an RPRC in the next three years, recommendations for meeting future nonhuman primate needs

Demographic information available in the NIH databases was appended to the survey data. Questions asking specifically for background and demographic information were not included in the survey to avoid compromising respondent confidentiality. A copy of the paper version of the survey follows in Appendix B. The online version of the survey was very similar, except that the computer program controlled the order of presentation of the survey items.

A.4 Survey Fielding

The preliminary survey questionnaire was pretested and respondents were individually debriefed in August through September, 2000. After minor revisions, the final questionnaire was included in the OMB submission for clearance to conduct the survey. OMB approval was received on April 24, 2001. Humanitas programmers then installed the survey on the Web, and NIH NCRR persons tested the online

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implementation. On May 25, 2001, government testers approved the online survey. Humanitas received the consolidated data file from NCCR March 29, 2001. They cleaned the data, reducing it to unique investigators and foreign investigators, who were ineligible for survey participation.

The following figure shows the dates and list of activities involved in fielding the survey.

Figure A-3: Schedule and Activities for Fielding the Survey

Date	Activity
May 4, 2001	BRI Wave 1: Initial tracking of 47 investigators with missing contact information
June 4, 2001	Advance letters advising of upcoming survey and requesting email addresses are mailed
June 13, 2001	BRI Wave 2: Tracking of 254 investigators without email addresses
July 9, 2001	Staggered sending of 1 st cover email messages with survey location and investigators' ID begins
July 17, 2001	Staggered sending of thank you/reminder email messages sent to all investigators
July 31, 2001	Staggered sending of 2 nd cover email messages sent to all non-responders
August 14, 2001	BRI Wave 3: Contact information for follow-up with non-responders sent to telephone center; interviewer briefing and training; calling to complete survey by telephone or elicit promise to complete online begins
August 30, 2001	Email "thank you for agreeing to complete" messages sent to those who promised interviewers to complete the online survey
August 31, 2001	Special appeal email message from Drs. Robinson and Strandberg sent to all nonresponders
September 19, 2001	Email "thank you for agreeing to complete" messages sent to those newly contacted non-responders who promised interviewers to complete the online survey
September 26, 2001	Telephone follow-up ends
October 12, 2001	Survey period ends

Copies of all advance letters, cover email messages, and thank you/other email messages follow in Appendix C.

Quality assurance processes and procedures included:

- Security measures to store hard-copy materials in locked cabinets and offices, daily back-ups of online materials, interviewer confidentiality pledges, and project-specific interviewer briefing and training materials
- Double keying of all telephone administered surveys into the online survey implementation, with hand verification of any discrepancies between the two keyings
- Development of codes for verbatim responses for approval by NIH NCCR, coding of open-ended "other" and verbatim responses, and checking coding for consistency

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- Frequency distributions for all survey items and response categories, with checking to make sure that all skip patterns were followed and no anomalies existed
- Checking of cross-tabulations of all survey items by two pages of background and demographic variables

The statistician then analyzed the clean data. She constructed figures (histograms, bar charts, graphs, pie charts, and other displays) to summarize all findings. She tested the means and proportions of respondents in relevant subgroups, using chi-square and t-tests, and documented significant differences between any key subgroups.

Public reporting burden for this collection of information is estimated to vary from 15 to 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. **An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.** Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: NIH Project Clearance Branch, 6705 Rockledge Drive, MSC 7974, Bethesda, MD 20892-7974, ATTN: PRA (0925-0487). Do not return this completed form to this address.



National Institutes of Health
National Center for Research Resources

NATIONAL SURVEY OF NONHUMAN PRIMATE (NHP) RESEARCH USE

Dear Dr. <First Name> <Last Name>

You have been identified in NIH databases as conducting **research involving nonhuman primates** during Fiscal Year 1999—that is, **October 1998 through September 1999**.

Please examine each grant or contract to confirm that each supported research that:

- **Involved nonhuman primates**

If NHPs were used, please check “YES”. If not, please check “NO”. If there are any duplicates, please check “NO” for the second entry. Thank you.

NHP Use		Grant or Contract #	Title	Institution
Yes	No			
<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/>	<input type="checkbox"/>			

Please return this questionnaire to the survey contractor:
NHP Survey, Humanitas, Inc., 8630 Fenton Street, Suite 910, Silver Spring, MD 20910

- When responding to the following questions, please base your answers on **all the research** performed during **FY99** under **all the grants or contracts** that you indicated **used NHPs**. The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the survey or as provided by law. Your privacy and confidentiality will be protected.

SECTION A: RPRCs

These initial questions ask about RPRCs.

1. Have you heard of a Regional Primate Research Center (RPRC)?

YES →

NO →

2. Have you heard of the following RPRCs?

(PLEASE CHECK ONE RESPONSE FOR EACH RPRC.)

	YES	NO	NOT SURE
CALIFORNIA RPRC (University of California, Davis, CA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEW ENGLAND RPRC (Harvard University, Southborough, MA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OREGON RPRC (Oregon Health Sciences University, Beaverton, OR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SOUTHWEST RPRC (Southwest Foundation for Biomedical Research, San Antonio, TX)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TULANE RPRC (Tulane University, Covington, LA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WASHINGTON RPRC (University of Washington, Seattle, WA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WISCONSIN RPRC (University of Wisconsin, Madison, WI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YERKES RPRC (Emory University, Atlanta, GA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. In FY99, did you try to access (use) an RPRC?

YES →

NO →

4. Thinking back now to the **most recent time in FY99** that you tried to access an RPRC, whom did you contact **initially**? (PLEASE GIVE ONLY ONE RESPONSE.)

- CENTER DIRECTOR
- CENTER CORE SCIENTIST
- CENTER VETERINARIAN
- CENTER TECHNICAL STAFF
- CENTER AFFILIATE SCIENTIST
- NCRR PROGRAM STAFF
- OTHER (PLEASE SPECIFY): _____

5. During FY99, were you ever denied access to an RPRC?

- YES →
- NO →

6. At which RPRC were you denied access?

(IF YOU WERE DENIED ACCESS AT MORE THAN ONE RPRC, PLEASE GIVE ONE ANSWER BASED ON YOUR **MOST RECENT EXPERIENCE IN FY99.**)

- CALIFORNIA RPRC
- NEW ENGLAND RPRC
- OREGON RPRC
- SOUTHWEST RPRC
- TULANE RPRC
- WASHINGTON RPRC
- WISCONSIN RPRC
- YERKES RPRC

7. Did the RPRC deny access because of the following reasons?

(PLEASE CHECK ONE RESPONSE FOR EACH REASON.)

	YES	NO
NO ONE AVAILABLE TO COLLABORATE WITH	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED SPECIES OF ANIMAL NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED AGE GROUP OF ANIMALS NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED GENDER OF ANIMALS NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED SPF (Specific-Pathogen-Free) ANIMALS NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED GENETICALLY CHARACTERIZED ANIMALS NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
DESIRED NUMBER OF ANIMALS NOT AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
RESEARCH NOT PEER REVIEWED AND/OR APPROVED	<input type="checkbox"/>	<input type="checkbox"/>
IACUC (Institutional Animal Care and Use Committee) DID NOT APPROVE RESEARCH	<input type="checkbox"/>	<input type="checkbox"/>
LACK OF SPACE TO HOLD ANIMALS	<input type="checkbox"/>	<input type="checkbox"/>
LACK OF LABORATORY SPACE OR FACILITIES	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

► If no reason was given by the RPRC, please check this box:

- NO REASON GIVEN BY RPRC

SECTION B: NON-RPRC RESEARCH

The next few questions ask about other nonhuman primate research facilities.

8. Did you use a nonhuman primate facility *other than an RPRC* in any of the research conducted in FY99 supported by the grants and projects referenced above?

- YES →
- NO →

9. Did you use a facility other than an RPRC for the following reasons?

(PLEASE CHECK ONE RESPONSE FOR EACH REASON.)

	YES	NO
WAS LESS EXPENSIVE	<input type="checkbox"/>	<input type="checkbox"/>
WAS A CLOSER LOCATION	<input type="checkbox"/>	<input type="checkbox"/>
HAD SPECIES THAT I NEEDED	<input type="checkbox"/>	<input type="checkbox"/>
PROVIDED BETTER SERVICES	<input type="checkbox"/>	<input type="checkbox"/>
HAD ANIMAL HOUSING AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
HAD RESEARCH SPACE AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
WAS DENIED ACCESS TO AN RPRC	<input type="checkbox"/>	<input type="checkbox"/>
HAD AGE GROUP NEEDED	<input type="checkbox"/>	<input type="checkbox"/>
HAD GENDER OF ANIMALS NEEDED	<input type="checkbox"/>	<input type="checkbox"/>
HAD SPF (Specific-Pathogen-Free) ANIMALS AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
HAD GENETICALLY CHARACTERIZED ANIMALS AVAILABLE	<input type="checkbox"/>	<input type="checkbox"/>
HAD NUMBER OF ANIMALS NEEDED	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

10. What (if any) are your comments on access to RPRCs, the process for obtaining animals and specimens, and the allocation of resources?

SECTION C: NONHUMAN PRIMATE (NHP) RESEARCH

The next questions ask about your use of nonhuman primates in research.

11. Thinking now about **all the research** done in FY99 supported by **all the grants and contracts** referenced above, did you use nonhuman primates in the following research areas?

(PLEASE CHECK ONE RESPONSE FOR EACH AREA.)

	YES	NO
AGING	<input type="checkbox"/>	<input type="checkbox"/>
AIDS	<input type="checkbox"/>	<input type="checkbox"/>
BEHAVIOR	<input type="checkbox"/>	<input type="checkbox"/>
CARDIOVASCULAR DISEASE	<input type="checkbox"/>	<input type="checkbox"/>
DEVELOPMENTAL BIOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
ENDOCRINOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
GENETICS	<input type="checkbox"/>	<input type="checkbox"/>
GENE THERAPY	<input type="checkbox"/>	<input type="checkbox"/>
IMMUNOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
INFECTIOUS DISEASES	<input type="checkbox"/>	<input type="checkbox"/>
NEUROSCIENCE	<input type="checkbox"/>	<input type="checkbox"/>
PATHOBIOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
PHYSIOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
PULMONARY DISEASE	<input type="checkbox"/>	<input type="checkbox"/>
REPRODUCTIVE BIOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
TRANSPLANTATION	<input type="checkbox"/>	<input type="checkbox"/>
UROLOGY	<input type="checkbox"/>	<input type="checkbox"/>
VACCINES	<input type="checkbox"/>	<input type="checkbox"/>
VIROLOGY	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

12. Did your research require: (PLEASE CHECK ONE.)

- WHOLE NHP ANIMALS → Please complete Items # 13 and 13a.
- NHP SPECIMENS → Please complete Item # 14.
- WHOLE NHP ANIMALS AND SPECIMENS → Please complete Items # 13, 13a, and 14.

13. **Whole NHP Animals Used in Any Referenced Grants and Projects in FY99:**

The following table asks about the three most used whole NHP animals and their costs. Please fill in the **white** boxes in the following table.

- Use one column for each **species** of nonhuman primate used in FY99 in the grants and contracts referenced above.
- If you have used more than three species, please provide information about the three species you used most. Begin with the most used species.
- If you are unsure of any of the information, please check your records. If you don't have exact numbers, please estimate them as best you can.
- Include in the total cost both amounts paid by the grants and any amounts paid by your institution.

WHOLE ANIMALS

	_____	_____	_____

13a. Thinking about **all** the NHP animals used in **all the referenced grants in FY99**, did these specific characteristics influence the costs of your research animals?

(PLEASE CHECK ONE RESPONSE FOR EACH CHARACTERISTIC.)

	YES	NO
GENDER	<input type="checkbox"/>	<input type="checkbox"/>
INFECTED ANIMALS NEEDED	<input type="checkbox"/>	<input type="checkbox"/>
SPF (Specific-Pathogen-Free)	<input type="checkbox"/>	<input type="checkbox"/>
PRIOR SURGERY REQUIRED	<input type="checkbox"/>	<input type="checkbox"/>
AGE	<input type="checkbox"/>	<input type="checkbox"/>
HOUSING	<input type="checkbox"/>	<input type="checkbox"/>
NEEDED NHP NEVER PREVIOUSLY USED	<input type="checkbox"/>	<input type="checkbox"/>
NHP WERE REUSABLE AFTER RESEARCH COMPLETED	<input type="checkbox"/>	<input type="checkbox"/>
GENO/PHENO TYPE	<input type="checkbox"/>	<input type="checkbox"/>
SPECIES	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

14. ***NHP Specimens Used in Any Referenced Grants and Projects in FY99:***

The following table asks about the three most used NHP species/specimens combinations (such as, Rhesus Macaque Blood) and their costs. Please fill in the **white** boxes in the following table.

- Use one column for each **species/specimen type** combination of nonhuman primate used in FY99 in the grants and contracts referenced above.
- If you have used more than three species/specimen types, please provide information about the three most used species/specimen combinations. Begin with the most used combination.
- If you are unsure of any of the information, please check your records. If you don't have exact numbers, please estimate them as best you can.
- Include in the costs both amounts paid by the grants and any amounts paid by your institution.

SPECIMENS

* **Specimen Type** = Blood, Skin, Urine, Other Tissue (Please Specify), Organ (Please Specify), or Other (Please Specify).

SECTION D: WHOLE ANIMALS

These questions ask just about your use of whole NHP animals, not specimens.

IF YOU USED WHOLE ANIMALS IN FY99 IN CONDUCTING RESEARCH SUPPORTED BY THE GRANTS AND CONTRACTS REFERENCED ABOVE, PLEASE COMPLETE THIS SECTION.

IF NOT, PLEASE SKIP TO SECTION E, SPECIMENS, QUESTION 24 ON PAGE 9.

15. On average, how long did it take to obtain NHP **animals** from the organization providing the animals?

- 1 TO 3 MONTHS
- 4 TO 6 MONTHS
- 7 TO 12 MONTHS
- MORE THAN A YEAR

16. Please describe the process for obtaining NHP **animals** from the organization providing them:

17. Were your **animals** housed at these facilities during your research?

(PLEASE CHECK ONE RESPONSE FOR EACH FACILITY.)

	YES	NO
YOUR INSTITUTION	<input type="checkbox"/>	<input type="checkbox"/>
AN RPRC	<input type="checkbox"/>	<input type="checkbox"/>
ANOTHER PRIMATE FACILITY	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

18. Did the facility (or facilities) provide the following services for you?

(PLEASE CHECK ONE RESPONSE FOR EACH SERVICE.)

	YES	NO
ANIMAL CARE AND HUSBANDRY	<input type="checkbox"/>	<input type="checkbox"/>
VACCINATION AND/OR BLOOD DRAWS	<input type="checkbox"/>	<input type="checkbox"/>
PATHOLOGY	<input type="checkbox"/>	<input type="checkbox"/>
SURGERY	<input type="checkbox"/>	<input type="checkbox"/>
NECROPSY	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

19. On average, did you consider the costs for obtaining or using the NHP **animals** unreasonable?

- YES →
- NO →

20. Did these **animal** costs appear to be unreasonable?

(PLEASE CHECK ONE RESPONSE FOR EACH COST.)

	YES	NO
ANIMAL COSTS	<input type="checkbox"/>	<input type="checkbox"/>
CARE, PER DIEM, AND/OR VET COSTS	<input type="checkbox"/>	<input type="checkbox"/>
EXPERIMENTAL PROTOCOL COSTS	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

21. Thinking now about the **majority** of the NHP **animals** used in research supported by the referenced grants and/or contracts, were any costs **not** covered by the grants and/or contracts?

- YES → Continue.
- NO → Skip to Question 23.

22. Did you use any of the following additional funding mechanisms to cover unanticipated or uncovered costs for obtaining **animals**?

(PLEASE CHECK ONE RESPONSE FOR EACH FUNDING MECHANISM.)

	YES	NO
GRANTS FROM NON-GOVERNMENT ORGANIZATIONS	<input type="checkbox"/>	<input type="checkbox"/>
DIRECT UNIVERSITY OR INSTITUTIONAL RESEARCH SUPPORT	<input type="checkbox"/>	<input type="checkbox"/>
FORWARD FUNDING BY UNIVERSITY OR RESEARCH INSTITUTION	<input type="checkbox"/>	<input type="checkbox"/>
SHARED COSTS WITH OTHER GRANTEES	<input type="checkbox"/>	<input type="checkbox"/>
SHARED COSTS BETWEEN THIS GRANT AND OTHER GRANTS HELD BY SELF	<input type="checkbox"/>	<input type="checkbox"/>
OTHER SUPPORT BY NIH (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

23. Thinking now about **all** of the NHP **animals** used in research supported by **all** the referenced grants and/or projects, upon completion of your research....

About what percentage of the animals could be usable for future research, what percentage would be of limited research use, and what percentage would have no further research use?

_____ % USABLE FOR FUTURE RESEARCH

_____ % LIMITED RESEARCH USE

_____ % NO FURTHER RESEARCH USE

(SHOULD TOTAL TO 100%)

SECTION E: SPECIMENS

These questions ask just about your use of NHP specimens, not whole animals.

IF YOU USED SPECIMENS IN FY99 IN CONDUCTING RESEARCH SUPPORTED BY THE GRANTS AND CONTRACTS REFERENCED ABOVE, PLEASE COMPLETE THIS SECTION.

IF NOT, PLEASE SKIP TO SECTION F, RPRC RESEARCH, QUESTION 32 ON PAGE 11.

24. On average, how long did it take to obtain NHP **specimens** from the source?

- 1 TO 3 MONTHS
- 4 TO 6 MONTHS
- 7 TO 12 MONTHS
- MORE THAN A YEAR

25. Please describe the process for obtaining NHP **specimens** from the source:

26. Besides preparation for shipping, did the organization providing the NHP **specimens** specially prepare (get ready) your specimens for your research?

- YES →
- NO →

27. Please explain, including any special costs associated with obtaining the **specimens**:

28. On average, did you consider the costs for obtaining or using the NHP **specimens** unreasonable?

- YES →
- NO →

29. Did these **specimen** costs appear to be unreasonable?

(PLEASE CHECK ONE RESPONSE FOR EACH COST.)

	YES	NO
SPECIMEN COSTS	<input type="checkbox"/>	<input type="checkbox"/>
PREPARATION AND/OR SHIPPING COSTS	<input type="checkbox"/>	<input type="checkbox"/>
EXPERIMENTAL PROTOCOL COSTS	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

30. Thinking now about the *majority* of the NHP **specimens** used in research supported by the referenced grants and/or projects, were any costs *not* covered by the grants and/or projects?

- YES →
- NO →

31. Did you use any of the following additional funding mechanisms to cover unanticipated or uncovered costs for obtaining **specimens**?

(PLEASE CHECK ONE RESPONSE FOR EACH FUNDING MECHANISM.)

	YES	NO
GRANTS FROM NON-GOVERNMENT ORGANIZATIONS	<input type="checkbox"/>	<input type="checkbox"/>
DIRECT UNIVERSITY OR INSTITUTIONAL RESEARCH SUPPORT	<input type="checkbox"/>	<input type="checkbox"/>
FORWARD FUNDING BY UNIVERSITY OR RESEARCH INSTITUTION	<input type="checkbox"/>	<input type="checkbox"/>
SHARED COSTS WITH OTHER GRANTEES	<input type="checkbox"/>	<input type="checkbox"/>
SHARED COSTS BETWEEN THIS GRANT AND OTHER GRANTS HELD BY SELF	<input type="checkbox"/>	<input type="checkbox"/>
OTHER SUPPORT BY NIH (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>
OTHER (PLEASE SPECIFY): _____	<input type="checkbox"/>	<input type="checkbox"/>

SECTION F: RPRC RESEARCH

These next few questions ask about your use of RPRCs for research.

32. In FY99, did you use an RPRC in any way to conduct research supported by the referenced grants and/or contracts?

- YES →
- NO →

33. Did you have any difficulties in acquiring the necessary NHP animals, specimens, or services from an RPRC?

(PLEASE CHECK ONE RESPONSE FOR EACH DIFFICULTY.)

	YES	NO
HAD DIFFICULTIES ACQUIRING <i>ANIMALS</i>	<input type="checkbox"/>	<input type="checkbox"/>
HAD DIFFICULTIES ACQUIRING <i>SPECIMENS</i>	<input type="checkbox"/>	<input type="checkbox"/>
HAD DIFFICULTIES ACQUIRING <i>SERVICES</i>	<input type="checkbox"/>	<input type="checkbox"/>

► **If you had no difficulties, please check this box:**

- HAD NO DIFFICULTIES →

34. Please explain any difficulties you had in accessing NHP animals, specimens, and/or services:

35. Thinking now about the *majority* of your experiences with an RPRC in FY99, please indicate how satisfied you were with the RPRC, where 1 is “Not Very Satisfied” and 5 is “Very Satisfied.”

[CIRCLE ONE NUMBER OR N/A (NOT APPLICABLE) IN EACH ROW.]

	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A
	1	2	3	4	5	N/A

SECTION G: FUTURE NEEDS

These last few questions ask about your future needs for NHP animals and specimens.

36. Thinking now about the **next three years**, do you anticipate that your future needs for primates will....

- INCREASE
- DECREASE
- REMAIN THE SAME
- DON'T KNOW

37. In the **next three years**, which nonhuman primate species do you anticipate that you will most need?

(PLEASE CHECK ONE.)

- RHESUS MACAQUES (MACACA MULATTA)
- PIGTAILED MACAQUES (MACACA NEMESTRINA)
- CYNOMOLGUS MONKEYS (MACACA FASCICULARIS)
- BABOONS (PAPIO SPECIES)
- CHIMPANZEES (PAN TROGLODYTES)
- OTHER (SPECIFY): _____
- DON'T KNOW

38. In the **next three years**, will you need (or want) genetically-defined and/or specific-pathogen-free primates for your research?

- YES
- NO
- DON'T KNOW

39. Do you anticipate that you will require specialized caging or housing facilities for your research?

- YES
- NO
- DON'T KNOW

40. Would you use an RPRC in the next three years?

- YES → Skip to Question 42.
- NO → Continue.
- DON'T KNOW → Skip to Question 42.

41. Why not?

42. What are your recommendations for meeting future nonhuman primate needs within the next three years? Do you have any suggestions for ways to increase collaborative research at the RPRCs, or about ways in which the Centers might better function?

Thank you very much for your time and assistance. The results from this survey will be used by NCRR to improve the availability of nonhuman primates for biomedical and behavioral research.

ADVANCE LETTER

June 4, 2001

<First Name> <Last Name>, <Degree(s)>
<Institution>
<Address>
<City>, <State> <Zip>

Dear Dr. <Last Name>:

The National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH), seeks your help to ascertain whether investigators currently have access to nonhuman primates in sufficient numbers for their research and to estimate future realistic needs. On behalf of the NIH, NCRR is conducting *The National Survey of Nonhuman Primate Research Use*, authorized under 42 USC 238j and approved by the Office of Management and Budget (Number 0925-0487, Expiration Date 10/31/2002). The purpose of the survey is to learn about investigators' experiences using nonhuman primates. The information to be provided by you and others will help ensure that investigators with scientifically meritorious research proposals will have access to scarce animal and specimen resources.

Your name was selected from the pool of scientific investigators who have conducted NIH-sponsored research involving nonhuman primates during Fiscal Year 1999. The survey will be conducted using a web-based (Internet) questionnaire or, if requested, a telephone interview. The survey should take about 15 minutes to complete.

Participation in this evaluation is voluntary. The survey information is intended to define the future research needs for nonhuman primates for biomedical and behavioral research. Be assured that there will be no sanctions if you decide not to participate, either to the survey as a whole or to any particular question. The information you provide will be confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. Your privacy and confidentiality will be protected.

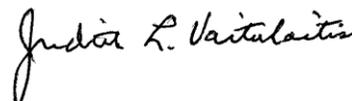
Please send your **preferred email address and telephone number** to Humanitas, Inc., the evaluation contractor. They will send you an email message giving you the web location of the survey and your person ID number for accessing the questionnaire. The survey will be implemented using SSL (Secure Socket Layer) encryption technology. Once you access the survey, you will see a "lock" in the lower right-hand corner indicating that you have a secure connection. Please send your **email address and telephone number** to: NHPSurvey@Humanitas.com, or fax to: 301-608-0513.

If you prefer to complete the survey by telephone, please call the telephone survey contractor, Braun Research, Inc., on their toll-free number (1-888-527-7779, extension 2228), to set an appointment at a convenient time. If you have any questions or need additional information, please feel free to call or email Ms. Patricia Newman, Evaluation Officer at NIH/NCRR, or Ms. Stephanie Karsten, Vice President at Humanitas, Inc.:

Ms. Patricia Newman	NIH/NCRR 301-435-0866	PattyV@ncrr.nih.gov
Ms. Stephanie Karsten	Humanitas 301-608-3290, x218	Skarsten@humanitas.com

We look forward to your participation, and I thank you in advance for your help.

Sincerely,



Judith L. Vaitukaitis, M.D.
Director

COVER MESSAGE 1

The National Survey of Nonhuman Primate Research Use

From: Humanitas, Inc. [NHPSurvey@Humanitas.com]
Sent: Date
To: Dr. <First Name> <Last Name>
Subject: Accessing the Online NHP Survey
Importance: High

As was explained in an earlier letter mailed to you, the National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH), seeks your help in evaluating the support that it provides scientific investigators for research with nonhuman primates. On behalf of the NIH, NCRR is conducting *The National Survey of Nonhuman Primate Research Use*, authorized under 42 USC 238j and approved by OMB (Number 0925-0487, Expiration Date 10/31/2002).

The purpose of the survey is to learn about investigators' experiences using nonhuman primates. The information to be collected will help ensure that NIH support for nonhuman primate research permits all investigators with meritorious proposals to have access to scarce animal and specimen resources.

The survey will be conducted using a web-based (Internet) questionnaire or, if requested, as a telephone interview. It should take about 15 minutes to complete the survey. The location of the survey is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

The survey is implemented using SSL (Secure Socket Layer) encryption technology. After you access the survey, you will see a "lock" in the lower right-hand corner indicating that you have a secure connection.

If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com

If you prefer a telephone survey, please call Braun Research, Inc., the telephone survey contractor, on their toll-free number (1-888-527-7779, extension 2228) to set an appointment at a convenient time.

Participation in this evaluation is voluntary. Be assured that there will be no penalties if you decide not to respond, either to the survey as a whole or to any particular question. The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. Your privacy and confidentiality will be protected.

Thank you in advance for your help.

COVER MESSAGE 1 -- RESEND

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: Accessing the Online NHP Survey
Importance: High

The NHP Survey is now available at <https://www.humanitas.com/NHPSurvey/SecureID.htm>. Please accept our sincere apologies for any inconvenience you may have experienced from our taking the time to remedy technical difficulties with the first version of the online survey. The National Center for Research Resources is relying on you to complete THIS VERSION of the survey to acquire important information about access to research resources.

As was explained in an earlier letter mailed to you, the National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH), seeks your help in evaluating the support that it provides scientific investigators for research with nonhuman primates. On behalf of the NIH, NCRR is conducting The National Survey of Nonhuman Primate Research Use, authorized under 42 USC 238j and approved by OMB (Number 0925-0487, Expiration Date 10/31/2002).

The purpose of the survey is to learn about investigators' experiences using nonhuman primates. The information collected will help ensure that NIH support for nonhuman primate research permits all investigators with meritorious proposals to have access to scarce animal and specimen resources.

The survey will be conducted using a web-based (Internet) questionnaire or, if requested, as a telephone interview. It should take about 15 minutes to complete the survey. The location of the survey is: <https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

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If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com

If you prefer a telephone survey, please call Braun Research, Inc., the telephone survey contractor, on their toll-free number (1-888-527-7779, extension 2228) to set an appointment at a convenient time.

Participation in this evaluation is voluntary. Be assured that there will be no penalties if you decide not to respond, either to the survey as a whole or to any particular question. The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. Your privacy and confidentiality will be protected. Thank you in advance for your help.

THANK YOU/REMINDER MESSAGE

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: Accessing the Online NHP Survey
Importance: High

Last week an email message giving the location of the online survey, The National Survey of Nonhuman Primate Research Use, and your personal ID number was sent to you. Your name was selected from those scientific investigators who have conducted NIH-sponsored research involving nonhuman primates during Fiscal Year 1999.

If you have already completed the survey, please accept our sincere thanks. If not, please do so today. We are especially appreciative of your help because it is only by asking investigators such as you about your experiences using nonhuman primates that we can evaluate the support that the NIH National Center for Research Resources (NCRR) provides scientific investigators for research with nonhuman primates.

If you have misplaced that email message, the location of the survey is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

The survey is implemented using SSL (Secure Socket Layer) encryption technology. After you access the survey, you will see a “lock” in the lower right-hand corner indicating that you have a secure connection.

If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com

Thank you in advance for your help.

COVER MESSAGE 2

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: Completing the Online NHP Survey
Importance: High

About three weeks ago, we sent you an email message giving the location of the online survey, The National Survey of Nonhuman Primate Research Use, and asking for your help in evaluating the support that the NIH National Center for Research Resources (NCRR) provides scientific investigators for research with nonhuman primates. To the best of our knowledge, the survey has not yet been completed.

Other investigators who have conducted NIH-sponsored research involving nonhuman primates have responded and described their experiences using nonhuman primates. Their information will help ensure that NIH support for nonhuman primate research permits all investigators with meritorious proposals to have access to scarce animal and specimen resources.

We are emailing you again because of the importance that your survey has for helping to get accurate results. Although we have contacted many investigators, it is only by hearing from nearly everyone in the sample that we can be sure that the results are truly representative.

Some investigators have contacted us because they are not the person most knowledgeable to respond to the survey, or because they are no longer involved in research involving nonhuman primates or have changed occupations. If these concerns apply to you, please let us know so that we can decide to forward the survey to the most knowledgeable investigator or delete your name from the sample. Please contact Ms. Stephanie Karsten at Humanitas, Inc.:

Ms. Stephanie Karsten Humanitas 301-608-3290, x218 Skarsten@Humanitas.com

It should take about 15 minutes to complete the survey. Please be assured that the information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the survey or as provided by law. In case you have misplaced the earlier email message, the location of the survey is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory (“welcome”) screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

The survey is implemented using SSL (Secure Socket Layer) encryption technology. After you access the survey, you will see a “lock” in the lower right-hand corner indicating that you have a secure connection. If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com

Thank you in advance for your help.

MESSAGE FROM DRs. ROBINSON AND STRANDBERG

The National Survey of Nonhuman Primate Research Use

From: Drs. Robinson & Strandberg [NHPSurvey@Humanitas.com]
Sent: August 31, 2001
To: Dr. <First Name> <Last Name>
Subject: Informing NIH NHP Policies
Importance: High

Dear Dr. <Last Name>,

We are contacting you, our fellow researchers, because we need your help.

NCCR strives to meet the needs of as many investigators involved in non-human primate research as possible. We are acutely aware that there is a vital need and demand for rhesus macaques of Indian origin for AIDS and other research. However, we don't always know what else is needed, both in terms of NHP animals/specimens and support services. We hear talk about possible inadequate resources and difficulties in accessing scarce supplies, but we do not have hard numbers. We need quantifiable data that describe your NHP needs and experiences meeting them.

During the past month or so, you were asked to participate in the "National Survey of Non-human Primate Research Use." The purpose of this survey is to learn about investigators' experiences in obtaining and using NHPs in their research protocols. The survey findings will help us at NCCR determine whether investigators in need of NHPs have access to sufficient numbers of animals and services to meet their research needs.

Demands for rhesus macaques of Indian origin are taking significant tolls on the NCCR/NIH-supported non-human primate resources. To develop a long-range strategy for meeting the needs of the research community, we desperately need to know the real demands for NHPs. Information from this survey is critical in planning the development and maintenance of NHP resources. We therefore again ask for your input and participating in this important survey.

Thank you in advance for your cooperation. We greatly appreciate your help.

Sincerely,

Jerry A. Robinson, Ph.D.
Director
Regional Primate Research Centers Program
Division of Comparative Medicine
National Center for Research Resources

John D. Strandberg, D.V.M., Ph.D.
Director
Division of Comparative Medicine
National Center for Research Resources

DO NOT USE NHP

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: NCRR National Survey of Nonhuman Primate Research Use
Importance: High

Thank you for your response re: the National Center for Research Resources' "National Survey of Nonhuman Primate Research Use." You reported to us that you have not used Nonhuman Primates. Your name will be removed from our database, and you will not be contacted again about taking the survey.

Thank you.

NHP Survey Team

THANK YOU FOR AGREEING TO COMPLETE THE SURVEY

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: Thank You!!
Importance: High

Thank you very much for agreeing to complete The National Survey of Nonhuman Primate Research online. NIH greatly appreciates your help in learning about investigators' experiences using nonhuman primates. The survey data will help ensure that NIH support for nonhuman primate research lets all investigators with meritorious proposals have access to scarce animals and specimens.

The location of the survey is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

The survey is implemented using SSL (Secure Socket Layer) encryption technology. After you access the survey, you will see a "lock" in the lower right-hand corner indicating that you have a secure connection.

If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com

The information you provide will be kept confidential and will not be disclosed in identifiable form to anyone but the researchers conducting the study or as provided by law. Your privacy and confidentiality will be protected.

Thank you again for agreeing to participate in this important survey.

MESSAGE TO RESPONDENTS WHERE SURVEY STATUS IS INCOMPLETE

The National Survey of Nonhuman Primate Research Use

From: NHP Survey [NHPSurvey@Humanitas.com]
Sent:
To: Dr. <First Name> <Last Name>
Subject: Finishing the Online NHP Survey
Importance: High

We noticed that you have not yet finished the online survey, *The National Survey of Nonhuman Primate Research Use*, and we trust that you meant to complete it. If so, please do so today. Remember that, after completing the survey, you must click on the “Submit” button to register the survey as complete and to send your responses to us. If, in the interim, you have already completed the survey, please accept our sincere thanks.

We are especially appreciative of your help because it is only by asking investigators such as you about your experiences using nonhuman primates that we can evaluate the support that the NIH National Center for Research Resources (NCR) provides scientific investigators for research with nonhuman primates.

If you have misplaced the email message giving the location of the survey, it is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com
<mailto:NHPSurveySupport@Humanitas.com>

Thank you in advance for your help.

LAST CALL FOLLOW-UP MESSAGE

The National Survey of Nonhuman Primate Research Use

From: John Strandberg/Jerry Robinson, NCRR [NHPSurvey@Humanitas.com]
Sent: September 19, 2001
To: Dr. [Name] [Email Address]
Subject: Last Call! You Could Have Forgotten
Importance: High

As of today, we have not received your completed survey on NHP primate research use. There is only one week left before the end of the survey field period. You indicated that you would complete the survey.

Please complete The National Survey of Nonhuman Primate Research Use. NCRR needs your input. We want to learn about your experiences accessing NHPs and to plan for sufficient animals and services to meet your future needs. The survey takes only about 15 minutes or less to complete. Please try to make a little time in these hectic times to help us to help you.

Thank you.

The location of the survey is:

<https://www.humanitas.com/NHPSurvey/SecureID.htm>

>>> Please click on this link to access the survey, or copy and paste the location into your Internet browser window. Once you have accessed the introductory screen, you will be prompted to enter your unique personal ID number. That number is:

XXXXXX

If you have trouble accessing the web-based survey, please email or telephone us at Humanitas, Inc.:

Humanitas Survey Support 301-608-3290, x213 NHPSurveySupport@Humanitas.com