# **TABLE OF CONTENTS**

TA	BLE OF CONTENTS	3
LIS	ST OF TABLES	4
TH	E QUESTIONNAIRE	23
	RVEY PARTICIPANTS	
	ARACTERISTICS OF THE SAMPLE	
SU	MMARY OF MAIN FINDINGS	29
1.	Medical Tests	49
	Equipment Sharing	
	Cost Structure	
4.	Administrative Time Management	83
	Procurement	
6.	Personnel	94
	Laboratory Waste, Toxicity, and Environmental Practices	
8.	Staff Time	107
9.	Technology	122
	Documentation of Experiments	
	Parting Thoughts	

## **LIST OF TABLES**

Table 1.1:	Does the laboratory outsource gene sequencing?	51
Table 1.2:	Does the laboratory outsource gene sequencing? Broken out by	
	country.	51
Table 1.3:	Does the laboratory outsource gene sequencing? Broken out by the	
	total square footage of the lab(s)	51
Table 1.4:	Does the laboratory outsource gene sequencing? Broken out by the	
	lab's total number of full-time equivalent employees in 2012	51
Table 1.5:	Does the laboratory outsource gene sequencing? Broken out by the	
	lab's primary focus.	51
Table 1.6:	Does the laboratory outsource DNA preparation?	52
Table 1.7:	Does the laboratory outsource DNA preparation? Broken out by country	52
Table 1.8:	Does the laboratory outsource DNA preparation? Broken out by	
	the total square footage of the lab(s).	52
Table 1.9:	Does the laboratory outsource DNA preparation? Broken out by	
	the lab's total number of full-time equivalent employees in 2012	52
Table 1.10:	Does the laboratory outsource DNA preparation? Broken out by	
	the lab's primary focus.	52
Table 1.11:	Does the laboratory outsource pathological analysis?	53
Table 1.12:	Does the laboratory outsource pathological analysis? Broken out	
	by country.	53
Table 1.13:	Does the laboratory outsource pathological analysis? Broken out	
	by the total square footage of the lab(s).	53
Table 1.14:	Does the laboratory outsource pathological analysis? Broken out	
	by the lab's total number of full-time equivalent employees in	
	2012	53
Table 1.15:	Does the laboratory outsource pathological analysis? Broken out	
	by the lab's primary focus.	53
Table 1.16:	Does the laboratory outsource the housing and feeding of lab	
	animals?	54
Table 1.17:	Does the laboratory outsource the housing and feeding of lab	
	animals? Broken out by country.	54
Table 1.18:	Does the laboratory outsource the housing and feeding of lab	
	animals? Broken out by the total square footage of the lab(s)	54
Table 1.19:	Does the laboratory outsource the housing and feeding of lab	
	animals? Broken out by the lab's total number of full-time	
	equivalent employees in 2012	54
Table 1.20:	Does the laboratory outsource the housing and feeding of lab	
	animals? Broken out by the lab's primary focus	54
Table 2.1:	What was the laboratory's total spending for the lease or rental of	
	equipment in the past year?	55
Table 2.2:	What was the laboratory's total spending for the lease or rental of	
	equipment in the past year? Broken out by country	55

Table 2.3:	What was the laboratory's total spending for the lease or rental of equipment in the past year? Broken out by the total square footage	
	of the lab(s).	55
Table 2.4:	What was the laboratory's total spending for the lease or rental of	
	equipment in the past year? Broken out by the lab's total number	
	of full-time equivalent employees in 2012.	55
Table 2.5:	What was the laboratory's total spending for the lease or rental of	
		55
Table 2.6:	What was the laboratory's total spending for the purchase of	
	equipment in the past year?	56
Table 2.7:	What was the laboratory's total spending for the purchase of	
	equipment in the past year? Broken out by country	56
Table 2.8:	What was the laboratory's total spending for the purchase of	
	equipment in the past year? Broken out by the total square footage	
	of the lab(s).	56
Table 2.9:	What was the laboratory's total spending for the purchase of	
	equipment in the past year? Broken out by the lab's total number	
	of full-time equivalent employees in 2012.	56
Table 2.10:	What was the laboratory's total spending for the purchase of	
	equipment in the past year? Broken out by the lab's primary focus	56
Table 2.11:	What was the laboratory's total spending—including both	
	purchase and lease/rental—for equipment in the past year?	57
Table 2.12:	What was the laboratory's total spending—including both	
	purchase and lease/rental—for equipment in the past year? Broken	
	out by country.	57
Table 2.13:	What was the laboratory's total spending—including both	
	purchase and lease/rental—for equipment in the past year? Broken	
	out by the total square footage of the lab(s).	57
Table 2.14:	What was the laboratory's total spending—including both	
	purchase and lease/rental—for equipment in the past year? Broken	
	out by the lab's total number of full-time equivalent employees in	
	2012	57
Table 2.15:	What was the laboratory's total spending—including both	
	purchase and lease/rental—for equipment in the past year? Broken	
	out by the lab's primary focus.	57
Table 2.16:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the availability	
	of funds for needed lab equipment and information technology?	58
Table 2.17:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the availability	
	of funds for needed lab equipment and information technology?	
	Broken out by country.	58
Table 2.18:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the availability	
	of funds for needed lab equipment and information technology?	
	Broken out by the total square footage of the lab(s).	58

Table 2.19:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the availability of funds for needed lab equipment and information technology? Broken out by the lab's total number of full-time equivalent	50
Table 2 20:	employees in 2012.	58
Table 2.20:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the availability of funds for needed lab equipment and information technology?	50
T 11 2 21	Broken out by the lab's primary focus.	59
Table 2.21:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the timeliness of delivery of needed funds?	60
Table 2.22:	How would you evaluate the support your lab receives from the	00
	university (or other parent organization) concerning the timeliness	
	of delivery of needed funds? Broken out by country.	60
Table 2.23:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the timeliness of delivery of needed funds? Broken out by the total square	
	footage of the lab(s)	60
Table 2.24:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the timeliness	
	of delivery of needed funds? Broken out by the lab's total number	
T. 1.1. 0.05	of full-time equivalent employees in 2012.	60
Table 2.25:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the timeliness of delivery of needed funds? Broken out by the lab's primary focus.	61
Table 2.26:	How would you evaluate the support your lab receives from the	01
14010 2.20.	university (or other parent organization) concerning the efficiency of repairs and maintenance support for lab equipment and	
T. 1.1. 0.07	information technology?	62
Table 2.27:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the efficiency of repairs and maintenance support for lab equipment and	
T 11 2 20	information technology? Broken out by country.	62
Table 2.28:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the efficiency	
	of repairs and maintenance support for lab equipment and information technology? Broken out by the total square footage of	
	the lab(s).	62
Table 2.29:	How would you evaluate the support your lab receives from the	02
14010 2.27.	university (or other parent organization) concerning the efficiency	
	of repairs and maintenance support for lab equipment and	
	information technology? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	62

Table 2.30:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the efficiency of repairs and maintenance support for lab equipment and	
	information technology? Broken out by the lab's primary focus	63
Table 2.31:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the quality of	
	training offered or funds for training on new equipment and new	
	software?	64
Table 2.32:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the quality of	
	training offered or funds for training on new equipment and new	
	software? Broken out by country.	64
Table 2.33:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the quality of	
	training offered or funds for training on new equipment and new	
	software? Broken out by the total square footage of the lab(s)	64
Table 2.34:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the quality of	
	training offered or funds for training on new equipment and new	
	software? Broken out by the lab's total number of full-time	
	equivalent employees in 2012	64
Table 2.35:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the quality of	
	training offered or funds for training on new equipment and new	
	software? Broken out by the lab's primary focus.	65
Table 2.36:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the ease of	
T 11 22	applying for funds and payment for vendors of new equipment?	66
Table 2.37:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the ease of	
	applying for funds and payment for vendors of new equipment?	
T 11 2 20	Broken out by country.	66
Table 2.38:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the ease of	
	applying for funds and payment for vendors of new equipment?	((
T-1-1- 2 20.	Broken out by the total square footage of the lab(s).	00
Table 2.39:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning the ease of	
	applying for funds and payment for vendors of new equipment?	
	Broken out by the lab's total number of full-time equivalent	66
Table 2.40:	employees in 2012.	66
1 aute 2.40.	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the ease of	
	applying for funds and payment for vendors of new equipment?	
	Broken out by the lab's primary focus.	67
	Dioken out by the lab of primary locus	0/

Table 2.41:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the influence	60
Table 2.42.	over choice of vendors?	68
Table 2.42:	How would you evaluate the support your lab receives from the university (or other parent organization) concerning the influence	
	over choice of vendors? Broken out by country.	68
Table 2.43:	How would you evaluate the support your lab receives from the	00
1 4016 2.43.	university (or other parent organization) concerning the influence	
	over choice of vendors? Broken out by the total square footage of	
	the lab(s).	68
Table 2.44:	How would you evaluate the support your lab receives from the	00
14010 2.44.	university (or other parent organization) concerning the influence	
	over choice of vendors? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	68
Table 2.45:	How would you evaluate the support your lab receives from the	00
14010 2.10.	university (or other parent organization) concerning the influence	
	over choice of vendors? Broken out by the lab's primary focus	69
Table 2.46:	How would you evaluate the support your lab receives from the	07
10010 2.10.	university (or other parent organization) concerning timely and	
	significant access to equipment shared with other labs?	70
Table 2.47:	How would you evaluate the support your lab receives from the	
10010 2.171	university (or other parent organization) concerning timely and	
	significant access to equipment shared with other labs? Broken out	
	by country.	70
Table 2.48:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning timely and	
	significant access to equipment shared with other labs? Broken out	
	by the total square footage of the lab(s).	70
Table 2.49:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning timely and	
	significant access to equipment shared with other labs? Broken out	
	by the lab's total number of full-time equivalent employees in	
	2012	70
Table 2.50:	How would you evaluate the support your lab receives from the	
	university (or other parent organization) concerning timely and	
	significant access to equipment shared with other labs? Broken out	
	by the lab's primary focus.	71
Table 3.1:	Approximately what percentage of total laboratory costs is	
1 4014 5.11.	accounted for by salaries and benefits?	74
Table 3.2:	Approximately what percentage of total laboratory costs is	
	accounted for by salaries and benefits? Broken out by country	74
Table 3.3:	Approximately what percentage of total laboratory costs is	
	accounted for by salaries and benefits? Broken out by the total	
	square footage of the lab(s)	74

Table 3.4:	Approximately what percentage of total laboratory costs is accounted for by salaries and benefits? Broken out by the lab's	
	total number of full-time equivalent employees in 2012	74
Table 3.5:	Approximately what percentage of total laboratory costs is	
	accounted for by salaries and benefits? Broken out by the lab's	7.4
T 11 2 6	primary focus.	74
Table 3.6:	Approximately what percentage of total laboratory costs is	7.5
T 11 2 7	accounted for by instruments and equipment?	75
Table 3.7:	Approximately what percentage of total laboratory costs is	
	accounted for by instruments and equipment? Broken out by	
T 11 2 0	country	75
Table 3.8:	Approximately what percentage of total laboratory costs is	
	accounted for by instruments and equipment? Broken out by the	
	total square footage of the lab(s)	75
Table 3.9:	Approximately what percentage of total laboratory costs is	
	accounted for by instruments and equipment? Broken out by the	
	lab's total number of full-time equivalent employees in 2012	75
Table 3.10:	Approximately what percentage of total laboratory costs is	
	accounted for by instruments and equipment? Broken out by the	
	lab's primary focus.	75
Table 3.11:	Approximately what percentage of total laboratory costs is	
	accounted for by animal and biological materials?	76
Table 3.12:	Approximately what percentage of total laboratory costs is	
	accounted for by animal and biological materials? Broken out by	
	country	76
Table 3.13:	Approximately what percentage of total laboratory costs is	
	accounted for by animal and biological materials? Broken out by	
	the total square footage of the lab(s).	76
Table 3.14:	Approximately what percentage of total laboratory costs is	
	accounted for by animal and biological materials? Broken out by	
	the lab's total number of full-time equivalent employees in 2012	76
Table 3.15:	Approximately what percentage of total laboratory costs is	
	accounted for by animal and biological materials? Broken out by	
	the lab's primary focus.	76
Table 3.16:	Approximately what percentage of total laboratory costs is	
	accounted for by overhead (facilities, administration, marketing,	
	utilities, etc.)?	77
Table 3.17:	Approximately what percentage of total laboratory costs is	
	accounted for by overhead (facilities, administration, marketing,	
	utilities, etc.)? Broken out by country.	77
Table 3.18:	Approximately what percentage of total laboratory costs is	
	accounted for by overhead (facilities, administration, marketing,	_
	utilities, etc.)? Broken out by the total square footage of the lab(s)	77
Table 3.19:	Approximately what percentage of total laboratory costs is	
	accounted for by overhead (facilities, administration, marketing,	

	utilities, etc.)? Broken out by the lab's total number of full-time	
	equivalent employees in 2012	77
Table 3.20:	Approximately what percentage of total laboratory costs is	
	accounted for by overhead (facilities, administration, marketing,	
	utilities, etc.)? Broken out by the lab's primary focus.	77
Table 3.21:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from your institutional	
	budget?	78
Table 3.22:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from your institutional	
	budget? Broken out by country.	78
Table 3.23:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from your institutional	
	budget? Broken out by the total square footage of the lab(s)	78
Table 3.24:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from your institutional	
	budget? Broken out by the lab's total number of full-time	
	equivalent employees in 2012.	78
Table 3.25:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from your institutional	
	budget? Broken out by the lab's primary focus.	78
Table 3.26:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from outside grants?	79
Table 3.27:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from outside grants?	
	Broken out by country.	79
Table 3.28:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from outside grants?	
	Broken out by the total square footage of the lab(s).	79
Table 3.29:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from outside grants?	
	Broken out by the lab's total number of full-time equivalent	
	employees in 2012.	79
Table 3.30:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from outside grants?	
	Broken out by the lab's primary focus.	79
Table 3.31:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from special grants from	
	within your institution?	80
Table 3.32:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from special grants from	
	within your institution? Broken out by country.	80
Table 3.33:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from special grants from	
	within your institution? Broken out by the total square footage of	
	the lab(s).	80

Table 3.34:	What percentage of the funds for your lab (for all purposes, including salaries and overhead) come from special grants from	
	within your institution? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	80
Table 3.35:	What percentage of the funds for your lab (for all purposes,	
	including salaries and overhead) come from special grants from	
	within your institution? Broken out by the lab's primary focus	80
Table 3.36:	How would you describe your laboratory's outlook for funding?	
Table 3.37:	How would you describe your laboratory's outlook for funding?	0 1
1 4010 3.37.	Broken out by country.	81
Table 3.38:	How would you describe your laboratory's outlook for funding?	01
	Broken out by the total square footage of the lab(s).	81
Table 3.39:	How would you describe your laboratory's outlook for funding?	
	Broken out by the lab's total number of full-time equivalent	
	•	81
Table 3.40:	How would you describe your laboratory's outlook for funding?	0 1
1 4010 2.10.	Broken out by the lab's primary focus.	81
	Brone out of the two s primary rous.	01
Table 4.1:	Who would you say handles ordering supplies in your lab?	83
Table 4.1:	Who would you say handles ordering supplies in your lab? Broken	05
1 autc 4.2.	out by country.	83
Table 4.3:	Who would you say handles ordering supplies in your lab? Broken	63
1 autc 4.3.	out by the total square footage of the lab(s).	83
Table 4.4:	Who would you say handles ordering supplies in your lab? Broken	65
1 auic 4.4.	out by the lab's total number of full-time equivalent employees in	
	2012	83
Table 4.5:	Who would you say handles ordering supplies in your lab? Broken	05
1 autc 4.5.	out by the lab's primary focus.	83
Table 4.6:	Who would you say handles the maintaining of the animals in your	65
1 4010 4.0.	lab?	84
Table 4.7:	Who would you say handles the maintaining of the animals in your	
1 autc 4.7.	lab? Broken out by country	8/1
Table 4.8:	Who would you say handles the maintaining of the animals in your	04
1 autc 4.6.	lab? Broken out by the total square footage of the lab(s)	۷.4
Table 4.9:	Who would you say handles the maintaining of the animals in your	04
1 autc 4.9.	lab? Broken out by the lab's total number of full-time equivalent	
	employees in 2012	84
Table 4.10:	Who would you say handles the maintaining of the animals in your	04
1 able 4.10.		0.1
Table 4 11.	lab? Broken out by the lab's primary focus.	04
Table 4.11:	Who would you say handles the inventory of chemicals, reagents,	0.5
Table 4 10.	and other supplies in your lab?	83
Table 4.12:	Who would you say handles the inventory of chemicals, reagents,	0.5
Table 4 12.	and other supplies in your lab? Broken out by country	83
Table 4.13:	Who would you say handles the inventory of chemicals, reagents,	
	and other supplies in your lab? Broken out by the total square	0.5
	footage of the lab(s)	85

Table 4.14:	Who would you say handles the inventory of chemicals, reagents, and other supplies in your lab? Broken out by the lab's total number of full-time equivalent employees in 2012.	85
Table 4.15:	Who would you say handles the inventory of chemicals, reagents, and other supplies in your lab? Broken out by the lab's primary	03
	focus.	85
Table 4.16:	Who would you say handles installing equipment in your lab?	86
Table 4.17:	Who would you say handles installing equipment in your lab?	
	Broken out by country.	86
Table 4.18:	Who would you say handles installing equipment in your lab?	
	Broken out by the total square footage of the lab(s).	86
Table 4.19:	Who would you say handles installing equipment in your lab?	
	Broken out by the lab's total number of full-time equivalent	
T 11 4 20	employees in 2012.	86
Table 4.20:	Who would you say handles installing equipment in your lab?	0.6
T 11 421	Broken out by the lab's primary focus.	
Table 4.21:	Who would you say handles paying invoices in your lab?	8 /
Table 4.22:	Who would you say handles paying invoices in your lab? Broken	87
Table 4.23:	out by country	0 /
1 4016 4.23.	out by the total square footage of the lab(s).	87
Table 4.24:	Who would you say handles paying invoices in your lab? Broken	0 /
1 4010 4.24.	out by the lab's total number of full-time equivalent employees in	
	2012.	87
Table 4.25:	Who would you say handles paying invoices in your lab? Broken	0 7
	out by the lab's primary focus.	87
Table 4.26:	Who would you say handles the supervision of time off and sick	
	leave in your lab?	88
Table 4.27:	Who would you say handles the supervision of time off and sick	
	leave in your lab? Broken out by country	88
Table 4.28:	Who would you say handles the supervision of time off and sick	
	leave in your lab? Broken out by the total square footage of the	
	lab(s)	88
Table 4.29:	Who would you say handles the supervision of time off and sick	
	leave in your lab? Broken out by the lab's total number of full-time	
	equivalent employees in 2012	88
Table 4.30:	Who would you say handles the supervision of time off and sick	0.0
T 11 421	leave in your lab? Broken out by the lab's primary focus	88
Table 4.31:	Who would you say handles the budgeting and accounting in your	00
T 11 422	lab?	89
Table 4.32:	Who would you say handles the budgeting and accounting in your	90
Table 4 22:	lab? Broken out by country	89
Table 4.33:	lab? Broken out by the total square footage of the lab(s)	89
	IAU! DIONCH UUL UV HIC WAL SUUALE WULAYE UI HIE IAWSI	07

Table 4.34:	Who would you say handles the budgeting and accounting in your lab? Broken out by the lab's total number of full-time equivalent	90
Table 4.35:	employees in 2012	89
Table 4.36:	Who would you say handles the communications with building or facilities management in your lab?	90
Table 4.37:	Who would you say handles the communications with building or facilities management in your lab? Broken out by country	90
Table 4.38:	Who would you say handles the communications with building or facilities management in your lab? Broken out by the total square footage of the lab(s)	90
Table 4.39:	Who would you say handles the communications with building or facilities management in your lab? Broken out by the lab's total number of full-time equivalent employees in 2012.	90
Table 4.40:	Who would you say handles the communications with building or facilities management in your lab? Broken out by the lab's primary focus.	90
Table 5.1:	How does the laboratory purchase most of its equipment?	91
Table 5.2:	How does the laboratory purchase most of its equipment? Broken out by country.	91
Table 5.3:	How does the laboratory purchase most of its equipment? Broken out by the total square footage of the lab(s).	91
Table 5.4:	How does the laboratory purchase most of its equipment? Broken out by the lab's total number of full-time equivalent employees in 2012.	91
Table 5.5:	How does the laboratory purchase most of its equipment? Broken out by the lab's primary focus.	92
Table 6.1:	What was the total number of full-time equivalent employees of your lab(s) in 2012, including clerical staff, scientists, doctoral students, technicians, and all other employees?	94
Table 6.2:	What was the total number of full-time equivalent employees of your lab(s) in 2012, including clerical staff, scientists, doctoral students, technicians, and all other employees? Broken out by	0.4
Table 6.3:	What was the total number of full-time equivalent employees of your lab(s) in 2012, including clerical staff, scientists, doctoral students, technicians, and all other employees? Broken out by the	94
Table 6.4:	total square footage of the lab(s)	94
	lab's total number of full-time equivalent employees in 2012	94

Table 6.5:	What was the total number of full-time equivalent employees of your lab(s) in 2012, including clerical staff, scientists, doctoral	
	students, technicians, and all other employees? Broken out by the	94
Table 6.6:	lab's primary focus.	94 95
Table 6.6: Table 6.7:	How many scientists are on your overall laboratory staff?	93
Table 0.7.	How many scientists are on your overall laboratory staff? Broken	0.5
T 11 60	out by country.	95
Table 6.8:	How many scientists are on your overall laboratory staff? Broken	0.5
T 11 60	out by the total square footage of the lab(s).	95
Table 6.9:	How many scientists are on your overall laboratory staff? Broken	
	out by the lab's total number of full-time equivalent employees in 2012.	95
Table 6.10:	How many scientists are on your overall laboratory staff? Broken	
	out by the lab's primary focus.	95
Table 6.11:	How many technicians are on your overall laboratory staff?	96
Table 6.12:	How many technicians are on your overall laboratory staff?	
	Broken out by country.	96
Table 6.13:	How many technicians are on your overall laboratory staff?	
	Broken out by the total square footage of the lab(s)	96
Table 6.14:	How many technicians are on your overall laboratory staff?	> 0
14010 0.11.	Broken out by the lab's total number of full-time equivalent	
	employees in 2012	96
Table 6.15:	How many technicians are on your overall laboratory staff?	
14010 0.13.	Broken out by the lab's primary focus.	96
Table 6.16:	How many custodial, clerical, security, or other such employees	70
1 4010 0.10.	that aren't scientists or technicians are on your overall laboratory	
	staff?	97
Table 6.17:	How many custodial, clerical, security, or other such employees	) 1
1 4010 0.17.	that aren't scientists or technicians are on your overall laboratory	
	staff? Broken out by country.	97
Table 6.18:	How many custodial, clerical, security, or other such employees	91
1 aute 0.16.	that aren't scientists or technicians are on your overall laboratory	
		97
Table ( 10.	staff? Broken out by the total square footage of the lab(s)	91
Table 6.19:	How many custodial, clerical, security, or other such employees	
	that aren't scientists or technicians are on your overall laboratory	
	staff? Broken out by the lab's total number of full-time equivalent	0.7
T 11 ( 20	employees in 2012	97
Table 6.20:	How many custodial, clerical, security, or other such employees	
	that aren't scientists or technicians are on your overall laboratory	
	staff? Broken out by the lab's primary focus.	97
Table 6.21:	How much flexibility do you have in devising job descriptions and	
	defining the responsibilities and training practices of the	
	technicians, office personnel, and other support staff who work in	
	the lab?	98
Table 6.22:	How much flexibility do you have in devising job descriptions and	
	defining the responsibilities and training practices of the	

	technicians, office personnel, and other support staff who work in	00
Table 6.23:	the lab? Broken out by country.  How much flevibility do you have in devicing ich descriptions and	98
1 able 0.23.	How much flexibility do you have in devising job descriptions and defining the responsibilities and training practices of the	
	technicians, office personnel, and other support staff who work in	
	the lab? Broken out by the total square footage of the lab(s)	98
Table 6.24:	How much flexibility do you have in devising job descriptions and	90
1 able 0.24.	defining the responsibilities and training practices of the	
	technicians, office personnel, and other support staff who work in	
	the lab? Broken out by the lab's total number of full-time	
	equivalent employees in 2012	99
Table 6.25:	How much flexibility do you have in devising job descriptions and	) )
1 autc 0.23.	defining the responsibilities and training practices of the	
	technicians, office personnel, and other support staff who work in	
	the lab? Broken out by the lab's primary focus.	99
Table 6.26:	How would you evaluate the total number of meetings held by the	
1 4010 0.20.	researchers in your lab?	100
Table 6.27:	How would you evaluate the total number of meetings held by the	100
1 4010 0.27.	researchers in your lab? Broken out by country.	100
Table 6.28:	How would you evaluate the total number of meetings held by the	100
1 4010 0.20.	researchers in your lab? Broken out by the total square footage of	
	the lab(s).	100
Table 6.29:	How would you evaluate the total number of meetings held by the	100
14010 0.29.	researchers in your lab? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	100
Table 6.30:	How would you evaluate the total number of meetings held by the	100
	researchers in your lab? Broken out by the lab's primary focus	100
Table 6.31:	What is the prevailing attitude in the lab about socializing with	
	your peers after work?	101
Table 6.32:	What is the prevailing attitude in the lab about socializing with	
	your peers after work? Broken out by country.	101
Table 6.33:	What is the prevailing attitude in the lab about socializing with	
	your peers after work? Broken out by the total square footage of	
	the lab(s).	101
Table 6.34:	What is the prevailing attitude in the lab about socializing with	
	your peers after work? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	101
Table 6.35:	What is the prevailing attitude in the lab about socializing with	
	your peers after work? Broken out by the lab's primary focus	101
Table 7.1:	How easy has it been to follow environmental and safety	
	procedures in your lab over the past five years?	104
Table 7.2:	How easy has it been to follow environmental and safety	
	procedures in your lab over the past five years? Broken out by	
	country.	104

Table 7.3:	How easy has it been to follow environmental and safety procedures in your lab over the past five years? Broken out by the	404
Table 7.4	total square footage of the lab(s).	104
Table 7.4:	How easy has it been to follow environmental and safety procedures in your lab over the past five years? Broken out by the	
	lab's total number of full-time equivalent employees in 2012	105
Table 7.5:	How easy has it been to follow environmental and safety	103
1 4010 7.3.	procedures in your lab over the past five years? Broken out by the	
	· · · · · · · · · · · · · · · · · · ·	105
Table 7.6:	How well trained is the laboratory staff in environmental and	105
14010 7.0.	safety procedures?	106
Table 7.7:	How well trained is the laboratory staff in environmental and	
	safety procedures? Broken out by country.	106
Table 7.8:	How well trained is the laboratory staff in environmental and	
	safety procedures? Broken out by the total square footage of the	
	lab(s)	106
Table 7.9:	How well trained is the laboratory staff in environmental and	
	safety procedures? Broken out by the lab's total number of full-	
	time equivalent employees in 2012.	106
Table 7.10:	How well trained is the laboratory staff in environmental and	
	safety procedures? Broken out by the lab's primary focus	106
Table 8.1:	Approximately what percentage of the lab budget for salaries is	
	dedicated to individuals primarily involved in equipment	
	maintenance, ordering and stocking supplies, and routine waste	
	removal?	107
Table 8.2:	Approximately what percentage of the lab budget for salaries is	
	dedicated to individuals primarily involved in equipment	
	maintenance, ordering and stocking supplies, and routine waste	
	removal? Broken out by country.	107
Table 8.3:	Approximately what percentage of the lab budget for salaries is	
	dedicated to individuals primarily involved in equipment	
	maintenance, ordering and stocking supplies, and routine waste	
T 11 0 4	removal? Broken out by the total square footage of the lab(s)	107
Table 8.4:	Approximately what percentage of the lab budget for salaries is	
	dedicated to individuals primarily involved in equipment	
	maintenance, ordering and stocking supplies, and routine waste	
	removal? Broken out by the lab's total number of full-time	107
Table 8.5:	equivalent employees in 2012	107
Table 8.3.	dedicated to individuals primarily involved in equipment	
	maintenance, ordering and stocking supplies, and routine waste	
	removal? Broken out by the lab's primary focus	107
Table 8.6:	How would you rate the effectiveness of your institution's	10/
1 4010 0.0.	handling of budgeting and cost analysis?	108

Table 8.7:	How would you rate the effectiveness of your institution's	
	handling of budgeting and cost analysis? Broken out by country	108
Table 8.8:	How would you rate the effectiveness of your institution's	
	handling of budgeting and cost analysis? Broken out by the total	
	square footage of the lab(s)	108
Table 8.9:	How would you rate the effectiveness of your institution's	
	handling of budgeting and cost analysis? Broken out by the lab's	
	total number of full-time equivalent employees in 2012	108
Table 8.10:	How would you rate the effectiveness of your institution's	
	handling of budgeting and cost analysis? Broken out by the lab's	
	primary focus.	108
Table 8.11:	How would you rate the effectiveness of your institution's	
	handling of purchasing?	109
Table 8.12:	How would you rate the effectiveness of your institution's	
	handling of purchasing? Broken out by country.	109
Table 8.13:	How would you rate the effectiveness of your institution's	
	handling of purchasing? Broken out by the total square footage of	
	the lab(s).	109
Table 8.14:	How would you rate the effectiveness of your institution's	
	handling of purchasing? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	109
Table 8.15:	How would you rate the effectiveness of your institution's	105
	handling of purchasing? Broken out by the lab's primary focus	109
Table 8.16:	How would you rate the effectiveness of your institution's	105
10010 0.10.	handling of accounting?	110
Table 8.17:	How would you rate the effectiveness of your institution's	110
	handling of accounting? Broken out by country.	110
Table 8.18:	How would you rate the effectiveness of your institution's	
	handling of accounting? Broken out by the total square footage of	
	the lab(s).	110
Table 8.19:	How would you rate the effectiveness of your institution's	110
10010 0.15.	handling of accounting? Broken out by the lab's total number of	
	full-time equivalent employees in 2012.	110
Table 8.20:	How would you rate the effectiveness of your institution's	
10010 0.20.	handling of accounting? Broken out by the lab's primary focus	110
Table 8.21:	How would you rate the effectiveness of your institution's	
10010 0.21.	handling of reimbursements?	111
Table 8.22:	How would you rate the effectiveness of your institution's	
14010 0.22.	handling of reimbursements? Broken out by country.	111
Table 8.23:	How would you rate the effectiveness of your institution's	111
14010 0.23.	handling of reimbursements? Broken out by the total square	
	footage of the lab(s)	111
Table 8.24:	How would you rate the effectiveness of your institution's	1 1 1
14010 0.21.	handling of reimbursements? Broken out by the lab's total number	
	of full-time equivalent employees in 2012.	111
	or ran time equivalent employees in 2012	1 1 1

Table 8.25:	How would you rate the effectiveness of your institution's	
	handling of reimbursements? Broken out by the lab's primary	
T. 1.1. 0.26	focus.	111
Table 8.26:	How would you rate the effectiveness of your institution's	110
T 11 0 27	handling of inventory control?	112
Table 8.27:	How would you rate the effectiveness of your institution's	110
T 11 0 20	handling of inventory control? Broken out by country.	112
Table 8.28:	How would you rate the effectiveness of your institution's	
	handling of inventory control? Broken out by the total square	110
T 11 0 20	footage of the lab(s)	112
Table 8.29:	How would you rate the effectiveness of your institution's	
	handling of inventory control? Broken out by the lab's total	110
T 11 0 20	number of full-time equivalent employees in 2012.	112
Table 8.30:	How would you rate the effectiveness of your institution's	
	handling of inventory control? Broken out by the lab's primary	110
T 11 0 21	focus.	112
Table 8.31:	How would you rate the effectiveness of your institution's	110
T 11 0 22	handling of capital equipment acquisitions?	113
Table 8.32:	How would you rate the effectiveness of your institution's	110
T 11 0 22	handling of capital equipment acquisitions? Broken out by country	113
Table 8.33:	How would you rate the effectiveness of your institution's	
	handling of capital equipment acquisitions? Broken out by the total	110
T 11 0 24	square footage of the lab(s)	113
Table 8.34:	How would you rate the effectiveness of your institution's	
	handling of capital equipment acquisitions? Broken out by the	110
T 11 0 2 5	lab's total number of full-time equivalent employees in 2012	113
Table 8.35:	How would you rate the effectiveness of your institution's	
	handling of capital equipment acquisitions? Broken out by the	110
T. 11. 0.26	lab's primary focus.	113
Table 8.36:	How would you rate the effectiveness of your institution's	
T 11 0 27	handling of equipment maintenance?	114
Table 8.37:	How would you rate the effectiveness of your institution's	
T 11 0 20	handling of equipment maintenance? Broken out by country.	114
Table 8.38:	How would you rate the effectiveness of your institution's	
	handling of equipment maintenance? Broken out by the total	114
T 11 0 20	square footage of the lab(s)	114
Table 8.39:	How would you rate the effectiveness of your institution's	
	handling of equipment maintenance? Broken out by the lab's total	
T 11 0 10	number of full-time equivalent employees in 2012.	114
Table 8.40:	How would you rate the effectiveness of your institution's	
	handling of equipment maintenance? Broken out by the lab's	114
T 11 0 41	primary focus.	114
Table 8.41:	How would you rate the effectiveness of your institution's	
TD 11 0 12	handling of billing and collection?	115
Table 8.42:	How would you rate the effectiveness of your institution's	
	handling of billing and collection? Broken out by country	115

Table 8.43:	How would you rate the effectiveness of your institution's handling of billing and collection? Broken out by the total square	
T 11 0 44	footage of the lab(s)	115
Table 8.44:	How would you rate the effectiveness of your institution's	
	handling of billing and collection? Broken out by the lab's total	115
Table 8.45:	number of full-time equivalent employees in 2012.	113
1 able 8.43.	How would you rate the effectiveness of your institution's handling of billing and collection? Broken out by the lab's primary	
	focus.	115
Table 8.46:	How would you rate the effectiveness of your institution's	113
1 aut 6.40.	handling of contract negotiation with lab suppliers?	116
Table 8.47:	How would you rate the effectiveness of your institution's	110
1 4010 0.47.	handling of contract negotiation with lab suppliers? Broken out by	
	country	116
Table 8.48:	How would you rate the effectiveness of your institution's	110
1 4010 0.10.	handling of contract negotiation with lab suppliers? Broken out by	
	the total square footage of the lab(s).	116
Table 8.49:	How would you rate the effectiveness of your institution's	110
14010 0.15.	handling of contract negotiation with lab suppliers? Broken out by	
	the lab's total number of full-time equivalent employees in 2012	116
Table 8.50:	How would you rate the effectiveness of your institution's	110
	handling of contract negotiation with lab suppliers? Broken out by	
	the lab's primary focus.	116
Table 8.51:	How would you rate the effectiveness of your institution's	
	handling of safety and environmental regulation compliance?	117
Table 8.52:	How would you rate the effectiveness of your institution's	
	handling of safety and environmental regulation compliance?	
	Broken out by country.	117
Table 8.53:	How would you rate the effectiveness of your institution's	
	handling of safety and environmental regulation compliance?	
	Broken out by the total square footage of the lab(s)	117
Table 8.54:	How would you rate the effectiveness of your institution's	
	handling of safety and environmental regulation compliance?	
	Broken out by the lab's total number of full-time equivalent	
	employees in 2012.	117
Table 8.55:	How would you rate the effectiveness of your institution's	
	handling of safety and environmental regulation compliance?	
	Broken out by the lab's primary focus.	117
Table 8.56:	How would you rate the effectiveness of your institution's	
F 11 0	handling of lab employee job training?	118
Table 8.57:	How would you rate the effectiveness of your institution's	110
T. 11 0 50	handling of lab employee job training? Broken out by country.	118
Table 8.58:	How would you rate the effectiveness of your institution's	
	handling of lab employee job training? Broken out by the total	110
	square footage of the lab(s)	118

Table 8.59:	How would you rate the effectiveness of your institution's handling of lab employee job training? Broken out by the lab's	
	total number of full-time equivalent employees in 2012	118
Table 8.60:	How would you rate the effectiveness of your institution's	
	handling of lab employee job training? Broken out by the lab's primary focus.	118
Table 8.61:	How would you rate the effectiveness of your institution's	
	handling of the documentation of experiments?	119
Table 8.62:	How would you rate the effectiveness of your institution's	
	handling of the documentation of experiments? Broken out by	110
T-1-1- 0 (2.	country	119
Table 8.63:	How would you rate the effectiveness of your institution's	
	handling of the documentation of experiments? Broken out by the	119
Table 8.64:	total square footage of the lab(s)	119
1 able 8.04.	handling of the documentation of experiments? Broken out by the	
	lab's total number of full-time equivalent employees in 2012	110
Table 8.65:	How would you rate the effectiveness of your institution's	119
1 abic 6.03.	handling of the documentation of experiments? Broken out by the	
	lab's primary focus	119
	we spiniary recas	117
Table 9.1:	Does the lab use a Laboratory Management System or some form	
1 au C 9.1.		122
Table 9.2:	Does the lab use a Laboratory Management System or some form	122
1 aoic 7.2.	of commercial lab management software package? Broken out by	
	country	122
Table 9.3:	Does the lab use a Laboratory Management System or some form	122
- 4.0 - 2 - 2 - 2	of commercial lab management software package? Broken out by	
	the total square footage of the lab(s).	122
Table 9.4:	Does the lab use a Laboratory Management System or some form	
	of commercial lab management software package? Broken out by	
	the lab's total number of full-time equivalent employees in 2012	122
Table 9.5:	Does the lab use a Laboratory Management System or some form	
	of commercial lab management software package? Broken out by	
	the lab's primary focus.	
Table 9.6:	How many tablet computers does the lab maintain?	124
Table 9.7:	How many tablet computers does the lab maintain? Broken out by	
		124
Table 9.8:	How many tablet computers does the lab maintain? Broken out by	
	the total square footage of the lab(s).	124
Table 9.9:	How many tablet computers does the lab maintain? Broken out by	101
T 11 0 10	the lab's total number of full-time equivalent employees in 2012	124
Table 9.10:	How many tablet computers does the lab maintain? Broken out by	104
Takla 0 11	the lab's primary focus.	
Table 9.11:	How many laptop computers does the lab maintain?	123

Table 9.12:	How many laptop computers does the lab maintain? Broken out by country.	125
Table 9.13:	How many laptop computers does the lab maintain? Broken out by	
T 11 0 14	the total square footage of the lab(s).	123
Table 9.14:	How many laptop computers does the lab maintain? Broken out by the lab's total number of full-time equivalent employees in 2012	125
Table 9.15:	How many laptop computers does the lab maintain? Broken out by	
	the lab's primary focus.	125
Table 9.16:	How many desktop computers does the lab maintain?	126
Table 9.17:	How many desktop computers does the lab maintain? Broken out by country.	126
Table 9.18:	How many desktop computers does the lab maintain? Broken out	120
1 doic 7.10.	by the total square footage of the lab(s).	126
Table 9.19:	How many desktop computers does the lab maintain? Broken out	120
1 doic 7.17.	by the lab's total number of full-time equivalent employees in	126
T 11 0 20	2012	126
Table 9.20:	How many desktop computers does the lab maintain? Broken out by the lab's primary focus.	126
Table 11.1:	Has your laboratory or your parent organization ever conducted	
14010 11.1.	workflow or a best practices formal study to improve your	
	laboratory productivity or work effort?	130
Table 11.2:	Has your laboratory or your parent organization ever conducted	150
14010 11.2.	workflow or a best practices formal study to improve your	
	laboratory productivity or work effort? Broken out by country	130
Table 11.3:	Has your laboratory or your parent organization ever conducted	= 0 0
	workflow or a best practices formal study to improve your	
	laboratory productivity or work effort? Broken out by the total	
	square footage of the lab(s)	130
Table 11.4:	Has your laboratory or your parent organization ever conducted	
	workflow or a best practices formal study to improve your	
	laboratory productivity or work effort? Broken out by the lab's	120
T 11 11 5	total number of full-time equivalent employees in 2012	130
Table 11.5:	Has your laboratory or your parent organization ever conducted	
	workflow or a best practices formal study to improve your	
	laboratory productivity or work effort? Broken out by the lab's	120
Table 11 6.	primary focus.	130
Table 11.6:	To the best of your knowledge, how much has your laboratory	
	spent over the past five years on conferences, publications, and	121
Table 11.7.	other information resources on laboratory management?	131
Table 11.7:	To the best of your knowledge, how much has your laboratory	
	spent over the past five years on conferences, publications, and	
	other information resources on laboratory management? Broken	121
Table 11 0.	out by country.	131
Table 11.8:	To the best of your knowledge, how much has your laboratory	
	spent over the past five years on conferences, publications, and	

	other information resources on laboratory management? Broken out by the total square footage of the lab(s).	131
Table 11.9:	To the best of your knowledge, how much has your laboratory spent over the past five years on conferences, publications, and other information resources on laboratory management? Broken	
	out by the lab's total number of full-time equivalent employees in 2012.	131
Table 11.10:	To the best of your knowledge, how much has your laboratory spent over the past five years on conferences, publications, and other information resources on laboratory management? Broken	
	out by the lab's primary focus.	131

## THE QUESTIONNAIRE

#### **MEDICAL TESTS**

1.	Do you use any metrics to measure how many medical tests your laboratory
	conducts, the technical and scientific labor time needed to conduct these tests, or the
	direct and indirect costs of such tests? If so, have you developed these metrics? How
	useful are they?

2. Does the laboratory outsource
----------------------------------

- A. Gene sequencing
- B. DNA preparation
- C. Pathological analysis
- D. The housing and feeding of lab animals

### **EQUPIMENT SHARING**

- 3. What was the laboratory's total spending for the lease or rental of equipment in the past year?
- 4. What was the laboratory's total spending for the purchase of equipment in the past year?
- 5. What was the laboratory's total spending—including both purchase and lease/rental—for equipment in the past year?
- 6. How would you evaluate the support your lab receives from the university (or other parent organization) concerning the \_\_\_\_\_?
  - A. Availability of funds for needed lab equipment and information technology
  - B. Timeliness of delivery of needed funds
  - C. Efficiency of repairs and maintenance support for lab equipment and information technology
  - D. Quality of training offered or funds for training on new equipment and new software
  - E. Ease of applying for funds and payment for vendors of new equipment
  - F. Influence over choice of vendors
  - G. Timely and significant access to equipment shared with other labs
- 7. What do you think needs to be changed about how your organization goes about purchasing and deploying information technology, lab equipment, and supplies?

### **COST STRUCTURE**

8.	Approximately what percentage of total laboratory costs is accounted for by each of
	the following?

- A. Salaries and benefits
- B. Instruments and equipment
- C. Animal and biological materials
- D. Overhead (facilities, administration, marketing, utilities, etc.)

9.	What percentage of the	funds for your	lab (for all purposes	, including salaries and
	overhead) come from _	?		

- A. Your institutional budget
- B. Outside grants
- C. Special grants from within your institution
- 10. How would you describe your laboratory's outlook for funding?
  - A. Excellent
  - B. Good
  - C. Fair
  - D. Poor
  - E. Dire
- 11. If you have had to make cuts in your budget over the past five years, which areas (i.e. equipment, supplies, lab or office space, salaries and personnel, etc.) have suffered the brunt of these cuts? To what degree?

### ADMINISTRATIVE TIME MANAGEMENT

12. (110 (100) 000 000) 1101101100 111 ) 0 011 10	12. `	wno would	you say handles _	in your la
---	-------	-----------	-------------------	------------

- A. Ordering supplies
- B. The maintaining of the animals
- C. The inventory of chemicals, reagents, and other supplies
- D. Installing equipment
- E. Paying invoices
- F. The supervision of time off and sick leave
- G. The budgeting and accounting
- H. The communications with building or facilities management

### **PROCUREMENT**

13. How does the laboratory purchase most of its equipment?

- A. Through the university, company, or other main institution
- B. Through a consortium
- C. Directly purchased by the lab from manufacturers
- D. Directly purchased by the lab from distributors
- 14. How does your organization monitor its inventory of chemicals, biological agents, and other key supplies in order to maintain stocks but not to accumulate excessive stocks? What kind of stock level reporting procedures do you have?

### PERSONNEL

- 15. What was the total number of full-time equivalent employees of your lab(s) in 2012, including clerical staff, scientists, doctoral students, technicians, and all other employees?
- 16. How many \_\_\_\_\_ are on your overall laboratory staff?
  - A. Scientists
  - B. Technicians
  - C. Custodial, clerical, security, or other such employees that aren't scientists or technicians
- 17. How much flexibility do you have in devising job descriptions and defining the responsibilities and training practices of the technicians, office personnel, and other support staff who work in the lab?
  - A. Pretty much have complete freedom to hire who I want and train them the way I want
  - B. Have some freedom but administrators determine some of this
  - C. Don't have much freedom and feel a bit hemmed in
  - D. It's a real problem and we are often stuck with personnel we can't use or who don't meet our needs
- 18. How would you evaluate the total number of meetings held by the researchers in your lab?
  - A. Too many meetings
  - B. The right number of meetings
  - C. Not enough meetings
- 19. What is the prevailing attitude in the lab about socializing with your peers after work?
  - A. Interferes with work and wastes time
  - B. Helps build relationships and is a productive use of time

20. How much control do you have over the salary and bonuses of your staff? Should you have more or less control? If the current set-up were changed more to your liking, what might be the impact on lab productivity and effectiveness?

### LABORATORY WASTE, TOXICITY, AND ENVIRONMENTAL PRACTICES

- 21. How easy has it been to follow environmental and safety procedures in your lab over the past five years?
  - A. Very easy, not a big problem for us
  - B. Relatively easy with occasional glitches or problems
  - C. Not always easy but we get done what we have to get done
  - D. It's been problematic and we have safety or productivity issues as a result
- 22. How well trained is the laboratory staff in environmental and safety procedures?
  - A. I would call our lab dangerous
  - B. Not very well trained
  - C. As well trained as we need to be
  - D. Well trained
  - E. Exceptionally well trained

### STAFF TIME

- 23. Approximately what percentage of the lab budget for salaries is dedicated to individuals primarily involved in equipment maintenance, ordering and stocking supplies, and routine waste removal?
- 24. How would you rate the effectiveness of your institution's handling of \_\_\_\_\_?
  - A. Budgeting and cost analysis
  - B. Purchasing
  - C. Accounting
  - D. Reimbursements
  - E. Inventory control
  - F. Capital equipment acquisitions
  - G. Equipment maintenance
  - H. Billing and collection
  - I. Contract negotiation with lab suppliers
  - J. Safety and environmental regulation compliance
  - K. Lab employee job training
  - L. The documentation of experiments
- 25. What are the biggest two or three administrative headaches you experience that waste the time of your scientists or consume a higher-than-necessary portion of their budgets?

### **TECHNOLOGY**

- 26. Does the lab use a Laboratory Management System or some form of commercial lab management software package?
- 27. If the lab does use a Laboratory Management System (or some form of commercial lab management software package), which package do you use and why? If not, why not and what do you use in its place?
- 28. How many \_\_\_\_\_ computers does the lab maintain?
  - A. Tablet
  - B. Laptop
  - C. Desktop
- 29. Has the increasing use of tablets, laptops, and other mobile computing devices significantly affected your lab's computer procurement and use practices? If so, how?

### **DOCUMENTATION OF EXPERIMENTS**

- 30. How does the laboratory keep records and document the development of experiments? Does it use any kind of online system for lab documentation? Are descriptions of procedures kept on a computer network? How is access restricted?
- 31. What are the most problematic areas at your institution regarding its laboratory management?

### PARTING THOUGHTS

- 32. Has your laboratory or your parent organization ever conducted workflow or a best practices formal study to improve your laboratory productivity or work effort?
- 33. To the best of your knowledge, how much has your laboratory spent over the past five years on conferences, publications, and other information resources on laboratory management?
- 34. What does you institution do best in terms of laboratory management?

## **SURVEY PARTICIPANTS**

Arizona State University

Braintree Hospital

**Brandeis University** 

Converting Biophile Laboratories

Eastern Gateway Community College

Faculty of Medicine of the University of Porto

The Hebrew University of Jerusalem

Illinois College

Interfaith Community Clinic

Northwestern University Feinberg School of Medicine:

Department of Pediatrics and Lurie Children's Hospital

Omdurman Ahlia University

Peninsula College of Medicine & Dentistry

Pontificia Universidad Católica de Chile

South African National Blood Service

Texas A&M Health Science Center

Trident Technical College

University of Miami

University of Minnesota

University of Nebraska

University of New England

University of North Texas Health Science Center

University of Washington

University of Western Australia

## **CHARACTERISTICS OF THE SAMPLE**

Overall sample size: 23

By Country	
United States	15
Other <sup>1</sup>	8
By Total Square Footage of the Lab(s) <sup>2</sup>	
1,500 square feet or less	11
More than 1,500 square feet	10
By the Lab's Total Number of Full-Time Equivalent Employees in 2012 <sup>3</sup>	
Les than 10	11
10 or more	11
By the Lab's Primary Focus <sup>4</sup>	
Research	9
Education	6
Both	7

<sup>1</sup> Australia (x2), Chile, England, Israel, Portugal, South Africa, and Sudan <sup>2</sup> Two survey participants did not answer this question <sup>3</sup> One survey participant did not answer this question <sup>4</sup> One survey participant did not answer this question

## Country, broken out by the total square footage of the lab(s).

Square Footage	United States	Other
1,500 square feet or less	72.73%	27.27%
More than 1,500 square feet	70.00%	30.00%

# Country, broken out by the lab's total number of full-time equivalent employees in 2012.

Total Employees	United States	Other
Less than 10	90.91%	9.09%
10 or more	45.45%	54.55%

### Country, broken out by the lab's primary focus.

Focus of Lab	United States	Other	
Research	88.89%	11.11%	
Education	50.00%	50.00%	
Both	42.86%	57.14%	

\* \* \* \* \*

### Total square footage of the lab(s), broken out by country.

Country	1,500 square feet or less	More than 1,500 square feet	
United States	53.33%	46.67%	
Other	50.00%	50.00%	

# Total square footage of the lab(s), broken out by the lab's total number of full-time equivalent employees in 2012.

Total Employees	1,500 square feet or less	More than 1,500 square feet	
Less than 10	63.64%	36.36%	
10 or more	40.00%	60.00%	

### Total square footage of the lab(s), broken out by the lab's primary focus.

Focus of Lab	1,500 square feet or less	More than 1,500 square feet	
Research	55.56%	44.44%	
Education	50.00%	50.00%	
Both	40.00%	60.00%	

# Lab's total number of full-time equivalent employees in 2012, broken out by country.

Country	Less than 10	10 or more	
United States	66.67%	33.33%	
Other	14.29%	85.71%	

# Lab's total number of full-time equivalent employees in 2012, broken out by the total square footage of the lab(s).

Square Footage	Less than 10	10 or more
1,500 square feet or less	63.64%	36.36%
More than 1,500 square feet	40.00%	60.00%

# Lab's total number of full-time equivalent employees in 2012, broken out by the lab's primary focus.

Focus of Lab	Less than 10	10 or more
Research	66.67%	33.33%
Education	50.00%	50.00%
Both	16.67%	83.33%

\* \* \* \* \*

## Lab's primary focus, broken out by country.

Country	Research	Education	Both
United States	57.14%	21.43%	21.43%
Other	12.50%	37.50%	50.00%

### Lab's primary focus, broken out by the total square footage of the lab(s).

Square Footage	Research	Education	Both
1,500 square feet or less	50.00%	30.00%	20.00%
More than 1,500 square feet	40.00%	30.00%	30.00%

# Lab's primary focus, broken out by the lab's total number of full-time equivalent employees in 2012.

Total Employees	Research	Education	Both
Less than 10	60.00%	30.00%	10.00%
10 or more	27.27%	27.27%	45.45%