

Chapter 4 User Operations

The research projects for public beamlines are divided into two categories: research projects on general proposals under the Proposal Review Committee (PRC) and research projects on the priority research program under JASRI.

Call for general proposals is announced twice a year and an urgent proposal is accepted through the year [see Table 4-1 and Figure 4-1~4-4]. Submitted proposals are reviewed by PRC members and referees in the following sections as for the 2004B research term:

1. Life Science
2. Diffraction and Scattering
3. XAFS and Fluorescence Analysis
4. Spectroscopy
5. SR Methodology
6. Industrial Application

In addition to the general proposals long-term proposals valid three years are also accepted twice a year and are reviewed by the long-term proposals sub-committee under PRC.

The PRC selects proposals based on the review results and allocate beam time to each selected proposal. Then, JASRI authorizes project leaders to perform their research projects at SPring-8. The projects are valid for a single research term (six months), except for those of long-term proposals. The long-term proposal allows a project with six research terms (three years) [see Table 4-6]. In addition, some beamlines accept one-year long proposals. In the Life Science and Industrial Application sections, some of beam time are reserved for additional calls, which will be announced a few times before next regular call.

Most of the proposals belong to the non-proprietary research, in which the project leaders are required to publish their results. As opposed to this, JASRI accepts a proposal for proprietary research. Paying a charge for using synchrotron radiation beams, the project leaders and their institutes can own the experiment result, i.e. they do not need to publish the experimental results. A total of 127 proposals have been performed as propriety research by 2004B.

The priority research proposal consists of the following subcategories:

- (1) Priority field proposal
- (2) Power user proposal
- (3) Strategy proposal

JASRI calls for priority field proposals from users, while JASRI designates both users in the subcategory of the power user proposal and projects in the subcategory of the strategy proposal. Regarding the priority field proposal, JASRI invites proposals from the following fields:

1. Nanotechnology-related research under the Nanotechnology Researchers Network Project of MEXT [see Table 4-3]
2. Protein 500 subprogram under the Protein 3000 Project of MEXT [see Table 4-4]
3. Industrial applications (Trial Use Program) [see Table 4-5]

Five projects are running under the subcategory of the power user proposal [see Table 4-7], and the following projects are designated under the subcategory of the strategy proposal:

1. Analysis of Nanocomposite Materials
2. Development of New Application Technology for Powder Diffraction Experiments
3. X-ray pinpoint structural measurement

Table 4-1 Proposal category

Proposal Review Committee	General Proposal (Open Call for Proposals)	Non-Proprietary	General Proposal
			Long-term Proposal
		Proprietary	General Proposal
JASRI	Priority Research Proposal	Priority Field Proposal (Open Call for Proposals)	Nanotechnology-related research under the Nanotechnology Researchers Network Project of MEXT
			Protein 500 subprogram under the Protein 3000 Project of MEXT
			Industrial application (Trial Use Program)
		Power User Proposal	Designated Power Users (5 groups)
		Strategy Proposal	Analysis of Nanocomposite Materials
	Development of New Application Technology for Powder Diffraction Experiments		
	X-ray pinpoint structural measurement		
	Beam Time Reserved for JASRI	Urgent Proposal, Time-Designated Proposal (Open call for Proposals)	
		Training Program	
		R&D, Commissioned Research	

Table 4-2 Number of submitted (Sub.) / selected (Sel.) / performed (Done) proposals for public use. The column "non-subm." is for the long-term proposals and power user proposals running on the second term or more.

Research Term	1997B			1998A			1999A			1999B			2000A			2000B			
	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	
BL01B1	23	16	15	43	27	27	47	34	34	66	23	23	53	46	46	54	33	33	
BL02B1	34	17	16	32	28	28	34	23	22	36	15	15	33	17	16	28	14	14	
BL02B2										6	4	4	29	24	24	47	29	29	
BL04B1	15	15	10	29	28	28	34	22	22	28	17	17	27	22	22	30	18	18	
BL04B2										7	6	6	21	20	20	25	17	17	
BL08W	5	4	3	10	7	7	17	11	11	19	12	10	19	12	11	19	11	11	
BL09XU	25	23	8	36	19	19	44	19	17	32	10	10	35	17	14	24	12	12	
BL10XU	16	6	5	25	21	21	37	27	27	38	19	19	26	22	13	38	20	17	
BL13XU																			
BL19B2																			
BL20B2										11	9	9	24	20	20	36	26	25	
BL20XU																			
BL25SU	20	11	0	6	6	14	20	12	12	24	15	15	27	18	18	31	17	17	
BL27SU	4	2	1	6	5	6	15	9	9	14	10	10	12	12	12	13	12	12	
BL28B2										1	1	1	12	11	11	18	14	14	
BL35XU																			
BL37XU																			
BL38B1																			
BL39XU	16	13	12	25	19	19	36	20	20	31	17	17	39	21	21	41	15	15	
BL40B2										13	10	10	29	28	28	51	47	41	
BL40XU													13	10	10	11	11	11	
BL41XU	36	22	20	60	39	39	82	65	64	70	53	52	56	47	45	71	50	47	
BL43IR													12	12	12	20	18	18	
BL46XU							1	1	1				1	1		3	3	3	
BL47XU	1			7	7	7	13	10	9	8	5	4	7	7	7	16	8	8	
any	2																		
multi																			
Sub Total	197	129	90	279	206	215	380	253	248	404	226	222	475	367	350	576	375	362	
JAERI and RIKEN BL	BL11XU								1							10	5	5	
	BL14B1				3	3	3	9	8	6	6	4	5	5	5	6	5	5	
	BL19LXU																		
	BL22XU																		
	BL23SU						2	2	2	4	2	2	4	4	3	1	1	1	
	BL29XU								1										
	BL44B2				10	9	9	4	3	3	6	4	4	1	1	1	3	1	1
	BL45XU	10	5	4	9	7	7	22	13	13	15	10	10	6	6	6	10	9	9
	Sub Total	10	5	4	22	19	19	37	26	26	31	22	20	16	16	15	30	21	21
BL15XU																			
Total	207	134	94	301	225	234	417	279	274	435	248	242	491	383	365	606	396	383	

Research Term	2001A				2001B				2002A				2002B					
	Beamline	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done	
Public Beamline	BL01B1	45	37		37	37	29		29	36	30		29	52	24		23	
	BL02B1	21	18		17	32	13		13	36	21		20	37	14		14	
	BL02B2	45	33		33	51	34		34	51	39		38	50	34		34	
	BL04B1	30	24	1	25	22	19	1	20	22	19		13	25	18		18	
	BL04B2	20	18	1	19	37	22	1	23	35	27	1	25	35	19	1	17	
	BL08W	20	17		15	25	18		18	22	17		17	12	12	1	13	
	BL09XU	24	17	1	18	21	11	1	12	22	15	1	15	17	10	1	11	
	BL10XU	29	25		25	26	18	1	19	26	25	1	25	33	19	1	20	
	BL13XU					5	5		5	13	12		11	24	14		14	
	BL19B2					13	8		8	68	43		40	99	43		42	
	BL20B2	40	27		26	48	33		33	39	31		30	36	27		27	
	BL20XU					15	12		12	12	11		11	8	8		8	
	BL25SU	27	21		21	28	19		18	27	19	1	19	38	17	1	18	
	BL27SU	24	17		17	28	19		19	30	21		20	25	19		19	
	BL28B2	11	11		11	18	15		14	22	18	1	18	25	16	1	17	
	BL35XU					6	5	1	6	13	10	1	11	18	9	1	10	
	BL37XU									1	1		1	20	13	1	9	
	BL38B1					16	16		16	15	15		15	12	9		9	
	BL39XU	31	18	1	19	42	21	1	22	37	20	1	21	23	12		12	
	BL40B2	59	58		57	50	43		43	46	41		40	44	27		27	
	BL40XU	13	11		11	17	12		12	21	18		18	20	18		18	
	BL41XU	67	63		61	50	47		47	71	67		60	42	27		27	
	BL43IR	30	25		25	24	24		21	23	22		0	21	18		18	
	BL46XU	8	5		5	7	4		4	5	4		4	7	5		5	
	BL47XU	10	8		8	9	9		9	12	11		10	12	12		12	
	any																	
	multi									1	0							
	Sub Total	554	453	4	450	627	456	6	457	706	557	7	511	735	444	8	442	
JAERI and RIKEN BL	BL11XU	5	5		5	4	4		4	6	6		5	1	1		1	
	BL14B1	6	4		4	7	6		6	3	3		3	6	5		5	
	BL19LXU					0	0		0	0		0	0	0		0		
	BL22XU																	
	BL23SU	0	0			5	5		5	7	6		6	7	5		5	
	BL29XU																	
	BL44B2	1	1		1	1	1		1	1	1		1	1	1		1	
	BL45XU	14	14		14	18	15		15	20	19		19	21	10		10	
	Sub Total	26	24	0	24	35	31	0	31	37	35	0	34	36	22	0	22	
BL15XU					0	0		0	0	0		0	9	7		7		
Total	580	477	4	474	662	487	6	488	743	592	7	545	780	473	8	471		

Research Term	2003A				2003B				2004A				2004B				
	Beamline	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done	Subm.	Sel.	non-subm.	Done
Public Beamline	BL01B1	44	36		36	64	31		30	45	31		30	71	31		31
	BL02B1	16	8	10	18	23	12	1	13	9	8	8	16	22	14	1	15
	BL02B2	49	38	1	38	41	32	2	32	40	34	2	36	47	37	2	39
	BL04B1	22	17		17	19	15		15	19	17		17	27	18		18
	BL04B2	33	21	1	22	38	20		19	33	21		21	41	21		21
	BL08W	13	11	1	12	13	8	2	10	14	8	2	9	18	9	2	10
	BL09XU	22	13	1	14	17	11	1	12	14	10	2	12	14	9	2	11
	BL10XU	27	17	1	17	27	17	2	18	30	19	2	21	27	17	2	19
	BL13XU	27	20		19	29	19		19	29	18		17	31	17		17
	BL19B2	92	38		36	62	35		32	56	36		36	60	36		36
	BL20B2	26	23		23	42	22		22	37	24		24	29	19	1	20
	BL20XU	13	12		12	16	11		10	13	13		13	25	14		14
	BL25SU	33	19	1	20	32	16	1	17	27	16	1	17	53	22		20
	BL27SU	25	22		22	31	18		18	25	19		19	33	14		14
	BL28B2	28	22	1	23	26	16		16	25	16		16	23	15		15
	BL35XU	18	12	1	13	23	13		13	12	8		8	14	12		11
	BL37XU	26	23	1	24	28	21		21	25	23		23	27	18		17
	BL38B1	9	8		8	17	11		11	12	8		8	25	24		24
	BL39XU	20	14		14	22	14		14	22	16		16	18	12		12
	BL40B2	49	36		35	69	43		37	53	34		34	44	21		20
	BL40XU	17	16		16	23	21	1	21	25	18	1	19	22	13	1	14
	BL41XU	58	56		54	76	32	1	32	40	29	1	29	45	23	1	23
	BL43IR	20	20		20	20	16		16	16	16		16	21	15		15
	BL46XU	7	5		5	13	7		7	10	8		8	17	9		9
	BL47XU	13	11		10	16	10		10	16	11		11	18	10		10
	any																
multi																	
Sub Total	707	518	19	528	787	471	11	465	647	461	19	476	772	450	12	455	
JAERI and RIKEN BL	BL11XU	5	3		3	4	4		4	3	3		3	6	5		5
	BL14B1	4	4		3	8	7	1	7	5	5		5	9	7		7
	BL19LXU	3	3		3	2	2		2	2	2		2	1	1		1
	BL22XU									3	3		3	5	5		5
	BL23SU	5	4		4	9	6		5	8	7		7	7	7		6
	BL29XU	1	1		1	0	0		0	0	0		0	2	2		2
	BL44B2	3	3		2	2	1		1	2	1		1	1	1		1
	BL45XU	13	10		10	14	8		8	9	8		8	16	10		10
	Sub Total	34	28	0	26	39	28	1	27	32	29	0	29	47	38	0	37
BL15XU	9	8		8	10	8		6	7	7		7	16	9		9	
Total	750	554	19	562	836	507	12	498	686	497	19	512	835	497	12	501	

Table 4-3 Number of nanotechnology-related research proposals under the nanotechnology researchers network project of MEXT.

Research Term	2002B			2003A			2003B			2004A			2004B		
	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done
BL01B1				1											
BL02B1	1			2			1								
BL02B2	22	14	14	19	12	12	14	8	8	10	8	8	12	9	9
BL04B2				2			1								
BL08W	1														
BL10XU				2	1	1	1								
BL11XU	1	1	1	1	1	1	3	2	2	3	3	3	4	4	4
BL13XU	8	7	7	8	5	5	14	5	5	8	4	4	13	5	5
BL14B1	2	2	2	2	2	2	8	5	4	4	3	3	5	5	5
BL15XU	9	7	7	7	7	7	10	7	6	7	7	7	15	6	6
BL20XU	1	1	1	1	1	1	2								
BL22XU													1	1	1
BL23SU	4	3	3	3	3	3	5	4	3	5	5	5	6	6	5
BL25SU	16	8	8	13	9	9	15	6	6	7	4	4	15	5	5
BL27SU	6	5	5	5	4	4	13	5	5	6	4	4	11	4	4
BL28B2				1											
BL37XU	6	4	1	10	8	8	11	6	6	7	4	4	3	2	2
BL38B1	1			1											
BL39XU	8	5	5	7	5	5	9	3	3	5	3	3	6	3	3
BL40B2							1								
BL43IR				1			2			1					
BL46XU				2											
BL47XU	5	3	3	4	2	2	4	3	3	9	5	5	8	5	5
Total	91	60	57	92	60	60	114	54	51	72	50	50	99	55	54

Table 4-4 Performed proposals for the protein 500 subprogram under the protein 3000 project of MEXT.

Research Term	2002B	2003A	2003B	2004A	2004B
BL38B1	18	34	24	27	26
BL40B2	21	18	10	11	7
BL41XU	30	20	17	19	21
Total	69	72	51	57	54

Table 4-5 Number of trial use program proposals. At 2001B and 2002A, these proposals were selected from general proposals

Research Term	2001B	2002A	2003A			2003B			2004A			2004B		
	designate	designate	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done	Subm.	Sel.	Done
BL01B1	1	1				4	4	4	5	4	4	8	3	3
BL02B1		1							3					
BL02B2		2												
BL09XU		1												
BL19B2	2	14	17	14	14	37	17	15	30	18	18	35	15	15
BL20XU						1								
BL28B2						1	1	1						
BL37XU									2	2	2	1		
BL46XU						5	3	3	5	5	5	4	3	3
Total	3	19	17	14	14	48	25	23	45	29	29	48	21	21

Table 4-6 Number of long-term proposals

Research Term	2000B	2001A	2001B	2002A	2002B	2003A	2003B	2004A	2004B
Submit	9	2	4	3	4	4	3	3	3
Select	3	1	1	1	1	1	2	1	0
Running proposals	3	4	5	6	7	8	7	7	7

Table 4-7 Power user proposals

Designated Power Users (Leader)	Research Term	2003A	2003B	2004A	2004B
	Beamline	shifts	shifts	shifts	shifts
K. Toriumi	BL02B1	0	51	54	48
Y. Kuroiwa	BL02B2	0	36	36	33
A. Koizumi	BL08W	0	24	27	24
M. Seto	BL09XU	0	42	54	48
Y. Tatsumi	BL10XU	0	0	15	24

Table 4-8 Strategy proposals

Thema	Beamline	Shifts
Analysis of Nanocomposite Materials	BL19B2	9
	BL40B2	24
Development of New Application Technology for Powder Diffraction Experiments	BL40B2	24

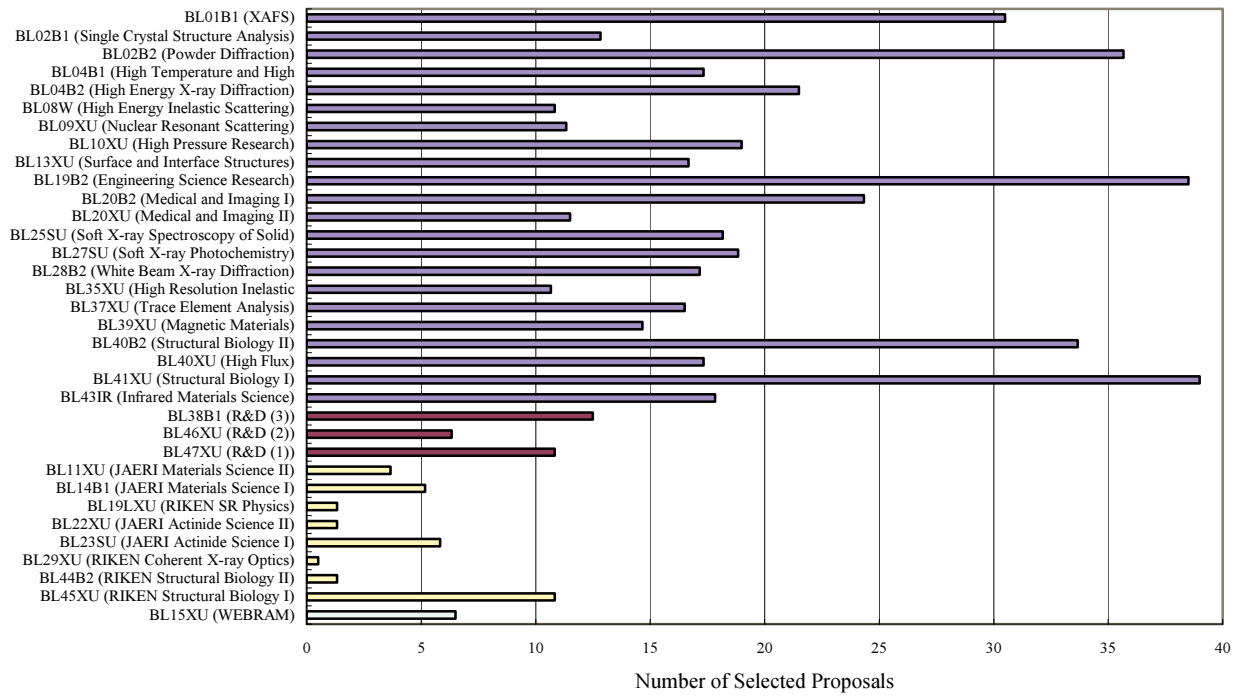


Figure 4-1 Average number of selected proposals (2002A-2004B). Three R&D beamline (BL38B1, BL46XU, BL47XU) provide ~30% of SR available beam time to public users.

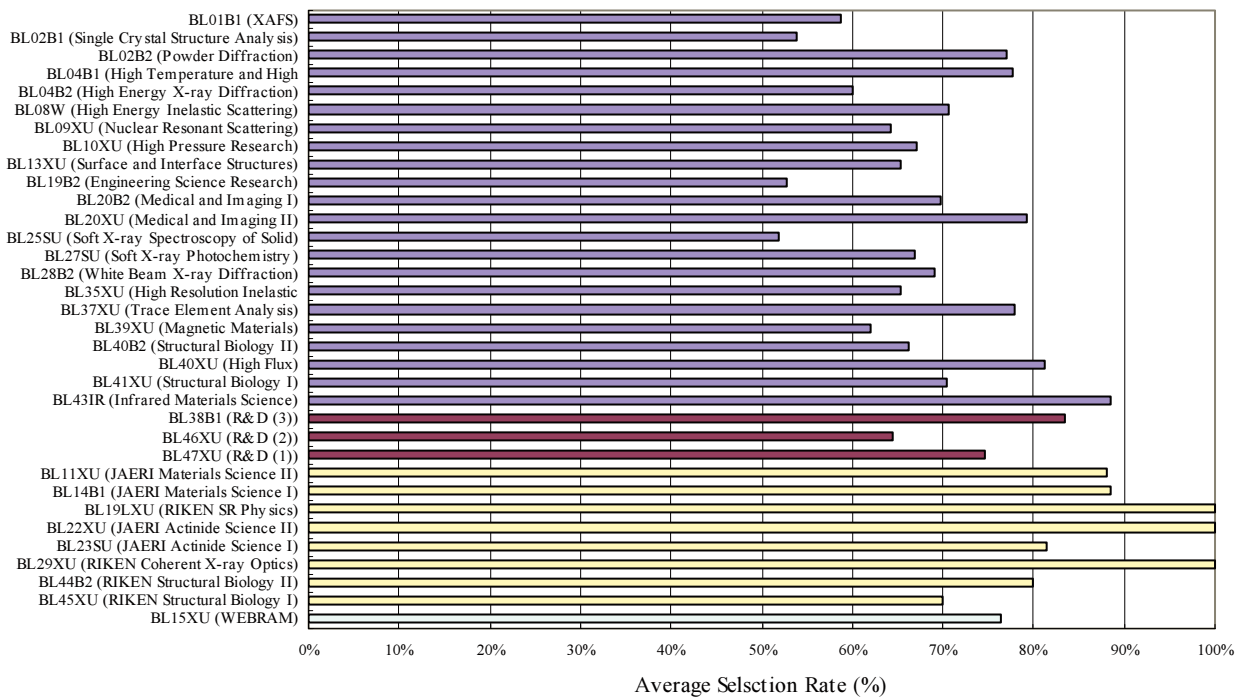


Figure 4-2 Selection rate for each beamline (2002A-2004B)

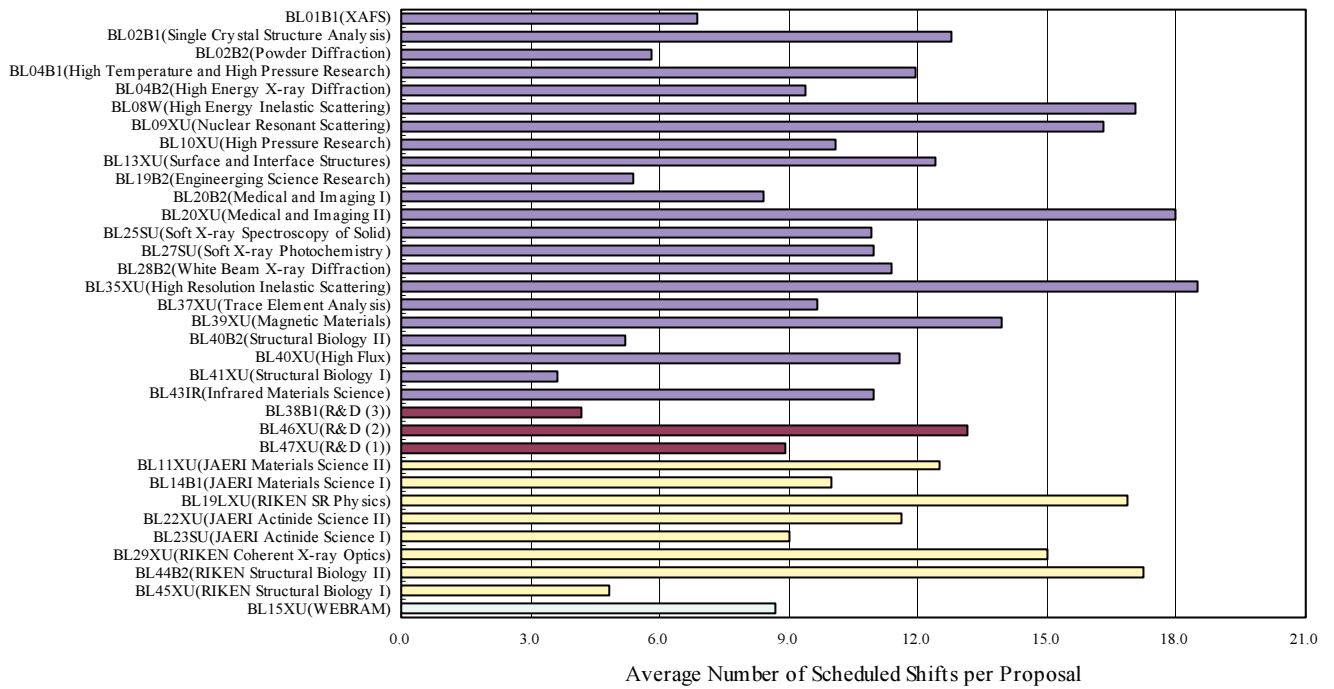


Figure 4-3 Average of scheduled shifts per proposal (2002A-2004B)

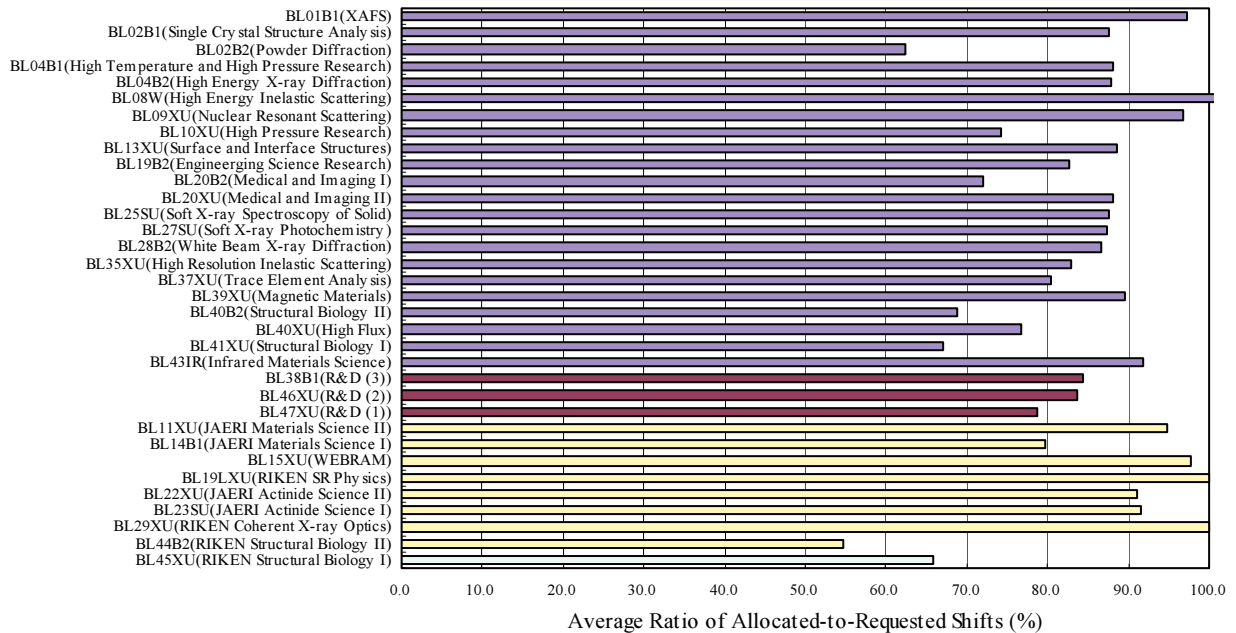


Figure 4-4 Average ratio of allocated-to-requested shifts (2002A-2004B)