上海大学

2016 6Ë) (_2ç1nB 1n@D+4`(I -Ç

SHANGHAI UNIVERSITY 上海大学

211

2016

2016

2016 9 30

1. 2012-2013 2013.12
2. 2013-2014 2014.12
3. 2014-2015 2015.12
4. 2015-2016 2016.12
5. 2013 2013
6. 2014 2014
7. 2015 2015
8. 2016 2016
9. 2012 2012
10. 59-80 2013-2016
11. 2012.09
12. (2010-2020) 2010.06
13. (2010-2020) 2010.10
14. 2016-2020 2016.12
15. 2010.09
16. 2006.07

2017 6

2016 6

2016

2016

2016 1

15 20 61%

80 2

3

4

5

99.2% 85.2% 500 22.6%

2016

77

6 2017

2016 40027

20815 52.00% 1390

2016 12 5081 2904

610 20.98%

65.5% 18.78 18.47

0.31

2016 2080 2064

71.55% 12.31%

12.32% 2016 80.89%

79.58%

2016

2.43 1.25 2016

2016

9331 9351

2015 9

2016 12

266 22 270

2016 493 406

87 21.43% 269 224

45 20.09% 2016 79

2016 3 3

3

2016

77-82

2014-2015 2015

2016 6

2016 94.56 90.98

2015

70% 2014 70%

2016 5731 5542

5326 92.93% 16.74% 16.83%

2016 99.13% 99.07%

17.09% 16.67% 0.42%

2015 72% 2014 65%

7 2015 96% 2014 95%

2015 93% 3

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2016 ,

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→ 2016 15 20

5 61% 80

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85% 4

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6 8

[2] 2016

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→ 2015

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50

→ 2016 286 14.0% 99.2%

85.2% 500 22.6%

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50%

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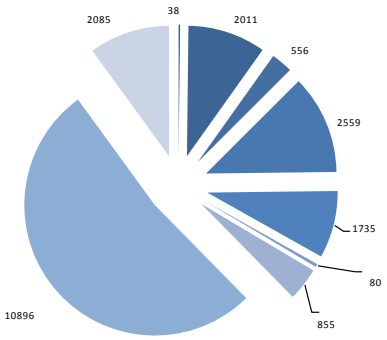
1. / /

2014

20815 9936

1390



2-1 2016

2. /

1

	37	1402	23	85	34

2

3.

1 ,

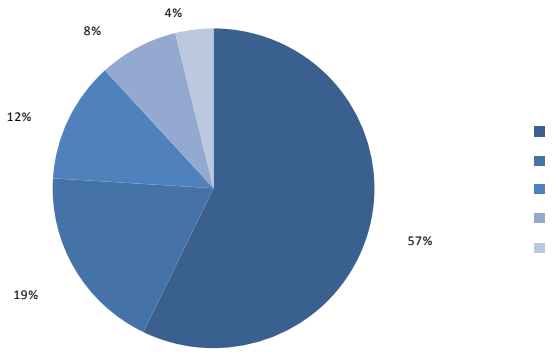
2

3

4.

1		41	8,000	
2		870	5,000	
3		51	8,000	
4		4	10,000	
5		95	1,000	
6		21	10,000	
7		6984	500-4,000	
		8066		

1.



2-2

5081 27

2. / /

1		2907	18.78	3215 [1]
2		954	63.28	
3		619	97.53	
4		406	148..70	
5		195	309.60	
		5081		60371.3 [2]

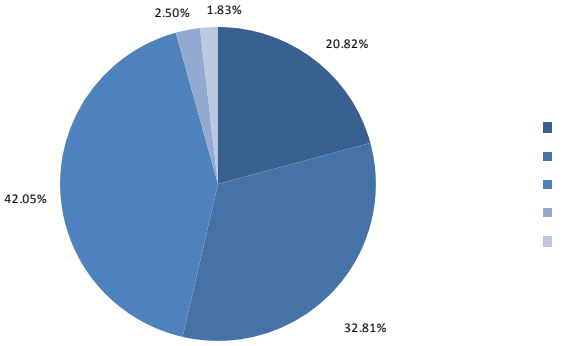
1 =

+ *0.5

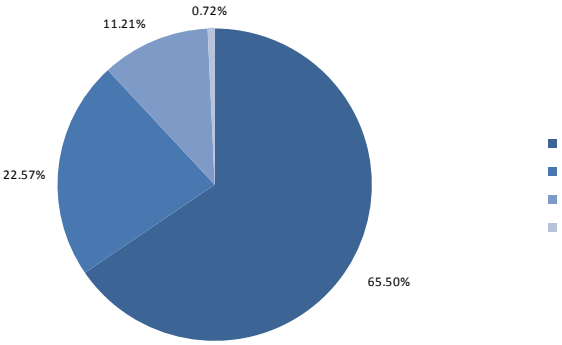
2 5-2016

2016 9

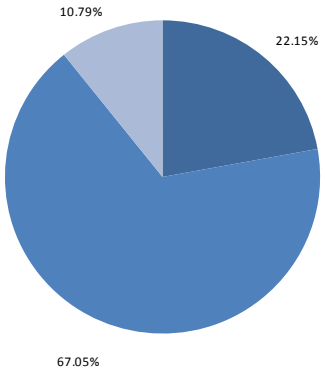
3. / /



2-3



2-4



2-5

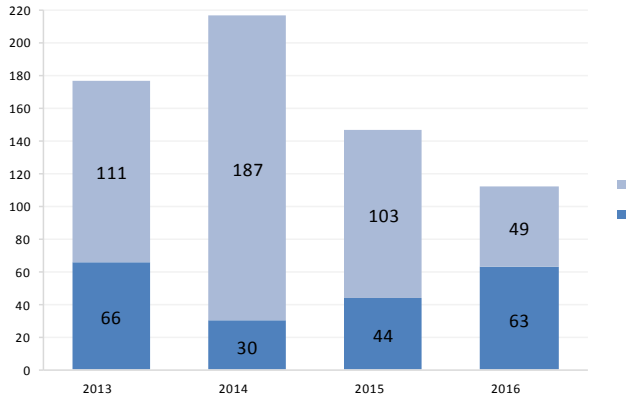
0.49% 0.32%

6.78%

3.37% 0.63% 8.63%

4.

2013 2016



2-6 2013-2016

2016 [(2004)2]

	2016	2015	2004
	18.78	18.47	18
	84.9%	88.9%	30

	15.73	15.78	14
	23720	24229.26	5000
	66.13	66.48	100
	53.66%	53.66	30
	45.91	45.91	54
	9.38	9.38	6.5
	46.46	48.11	10
	5.1%	7.6%	10
	2.47	0.8	4

1. 5-2016

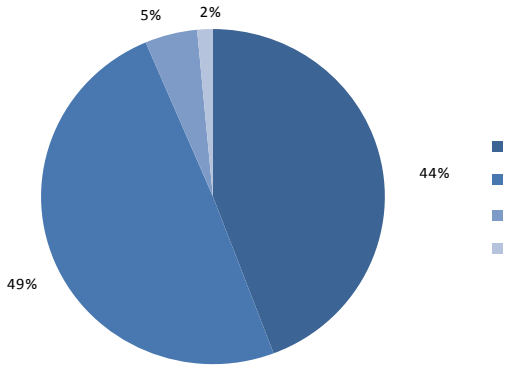
2. 60371.3 40027

3215

2016 9

1.

2016 316,829.49



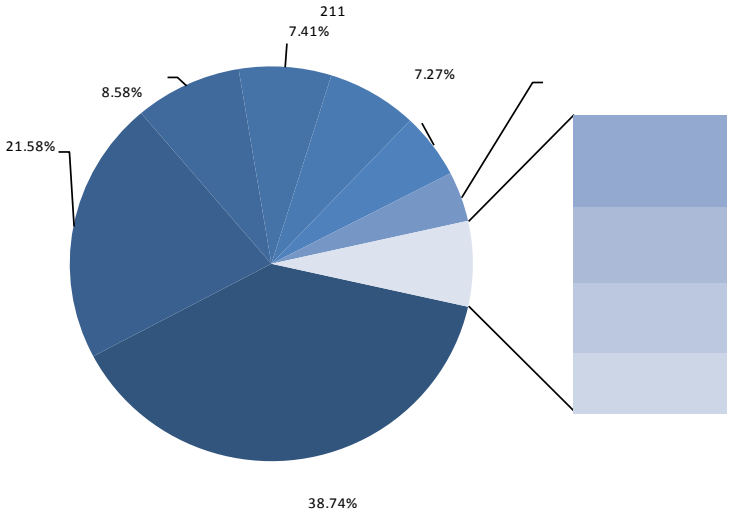
2-7 2016

46,576.89

8 5

2.

2016 369,969.31



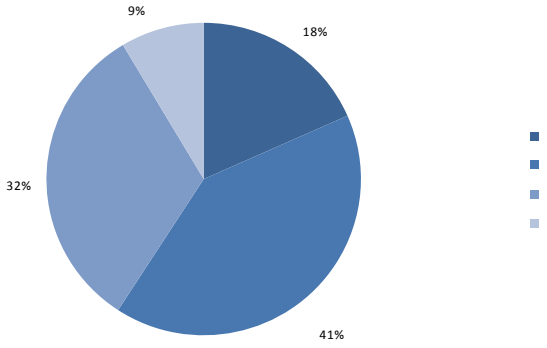
2-8 2016

7.88 2.36

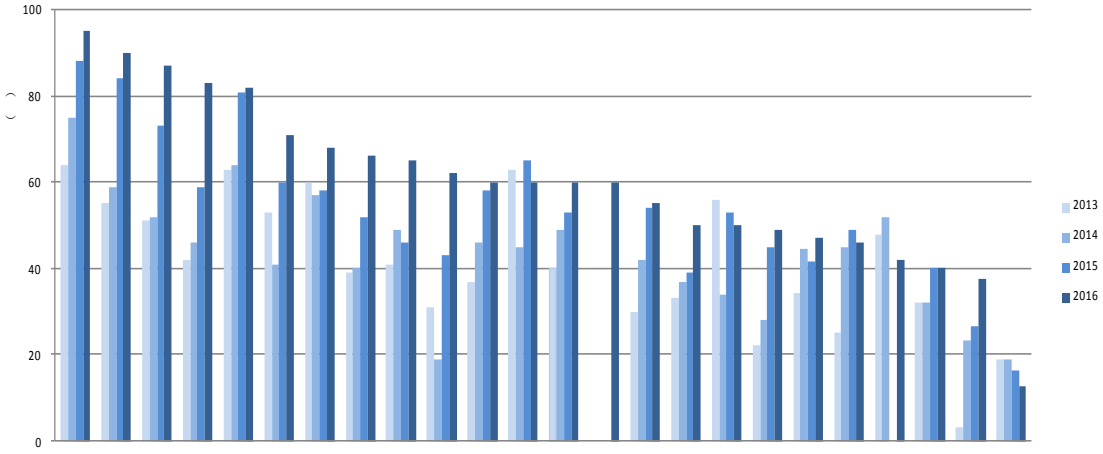
2.43 3.95 1.25

37

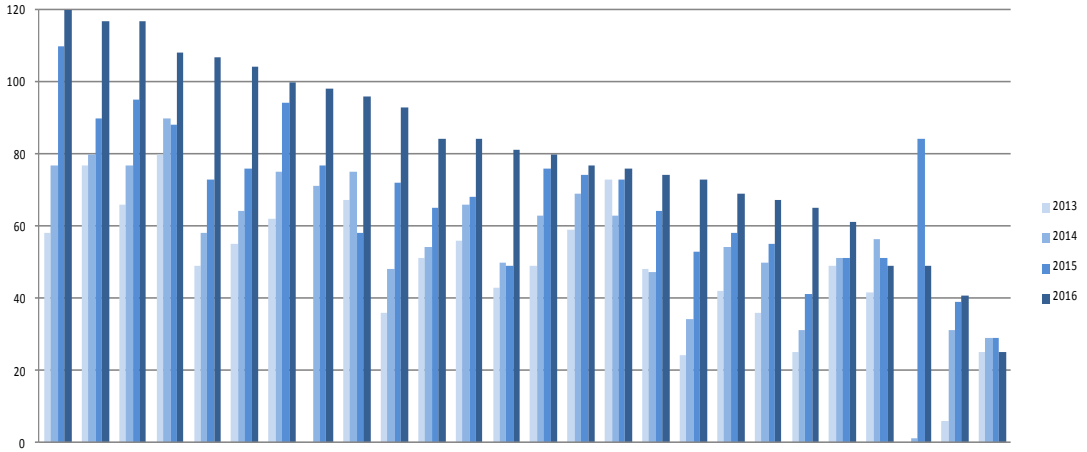
174



2-9



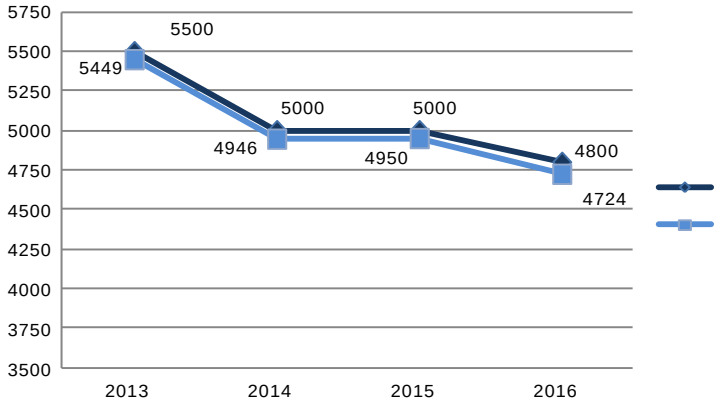
3-1 2013-2016



3-2 2013-2016

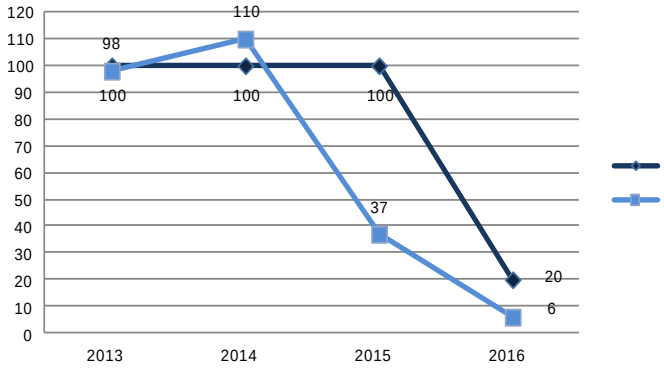
2013

2013-2016

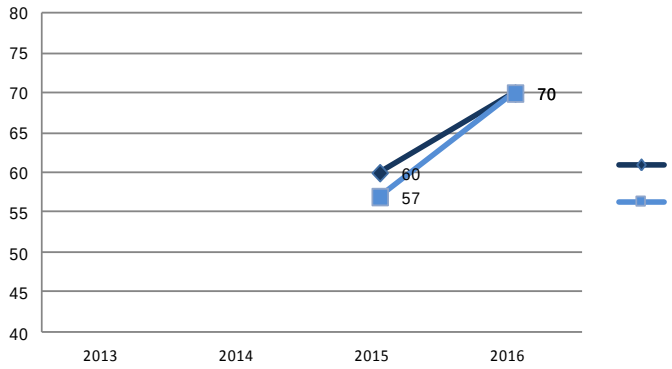


3-3 2013-2016 /

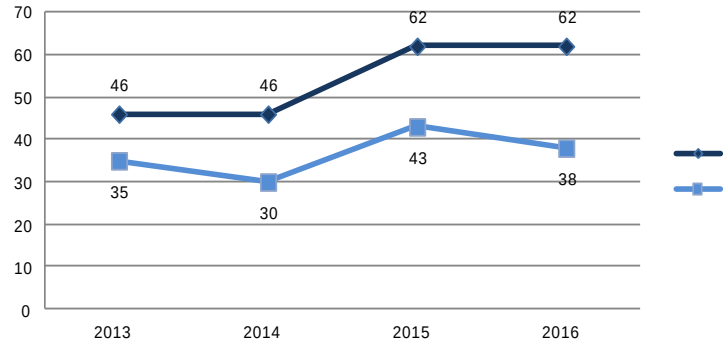
2012 2015



3-4 2013-2016 /

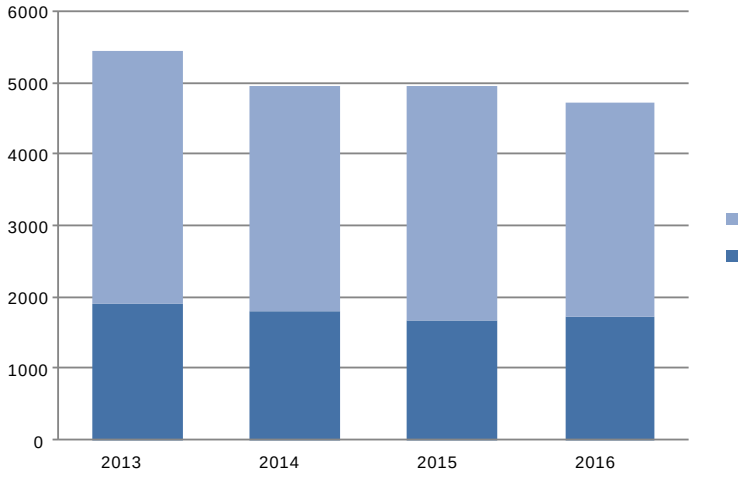


3-5 2013-2016 /



3-6 2013-2016 /

2013 -2016



3-7 2013-2016

2015

2016 2015

79.5% 2013 100%

100% 100% 2016

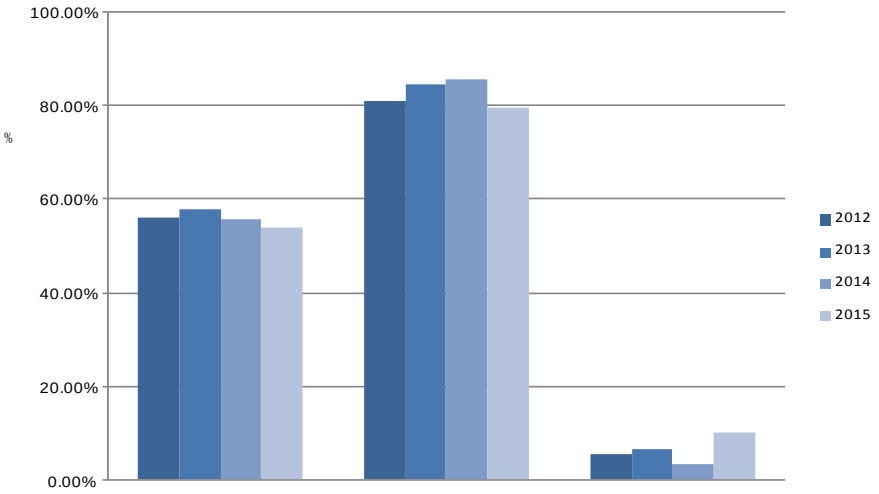
88.3%

2016 11 2015

3166 2015 4950

3159 2015

96.53% 2014 96.40%



3-8 2012-2015

1. 2013

		2		75			60	
		2		75			50	
		3		95			50	

- 290
- 2 1
  10
- 15%
  25%

2. 2014 2015

		2		70	4	[25 30]		60	
		2		70	4	[25 30]		50	
		3		90	4	[25 30]		50	

2013

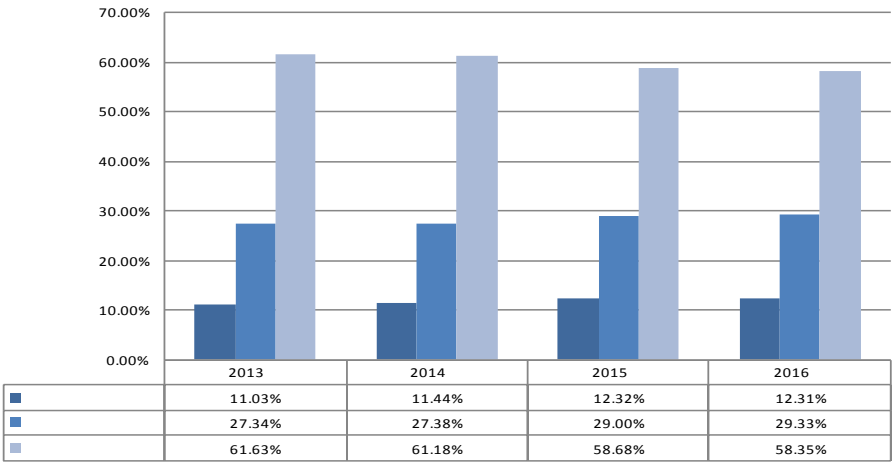
3. 2016

		2		70	4			60	
		2		70	4			50	
		3		90	4			50	

20% 25% 2013

1.

1

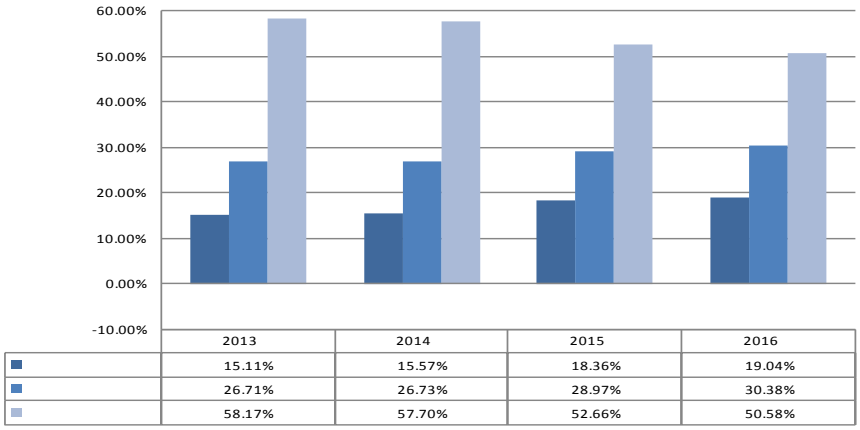


	2013	2014	2015	2016
	11.03%	11.44%	12.32%	12.31%
	27.34%	27.38%	29.00%	29.33%
	61.63%	61.18%	58.68%	58.35%

4-1 2013-2016

- = /
- = /
-

2



	2013	2014	2015	2016
	15.11%	15.57%	18.36%	19.04%
	26.71%	26.73%	28.97%	30.38%
	58.17%	57.70%	52.66%	50.58%

4-2 2013-2016

- = /
- = /
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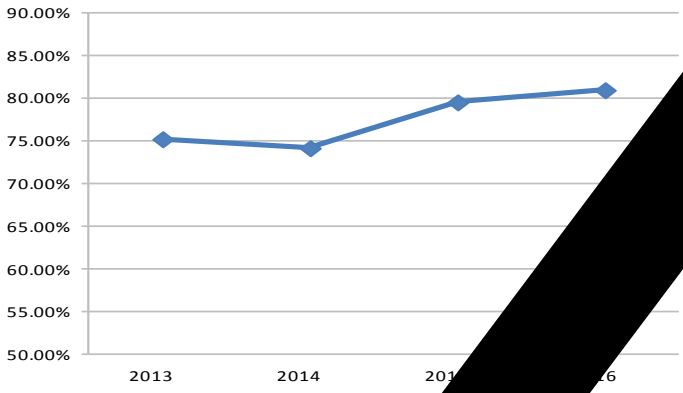
3



4-3 2013-2016

- =

3.

2016

16.00 19.04

4-1 2016

		/		
		311	19185	100%
		8	496	
		167	30868	
		83		
		569	50549	

2016

1.

2013	29	103	125
2014	89	101	180
2015	100	124	182
2016	269		224

2016

2.

2013	67	200	1121
2014	73	220	1882
2015	76	228	896
2016	79	218	866

2007 2016
218 2008 2016
630

3.

	2014-2015			2015-2016		
	16864	4149	12715	15120	4076	11044
	1906	0	1906	1853		1853
	740	0	740	713		713
	19510	4149	15361	17686	4076	13610
		21.27%	78.73%		23.05%	76.95%

1.

2016

24 2016

6

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2016

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2016 3 2 2013

3 3

4.

ACM

ACM ACM/ICPC ACM
Association for Computing Machinery

1970 41 41

Microsoft IBM Google Facebook

ACM-ICPC 1996 1996 2001 6
ACM-ICPC 2006 ACM-ICPC 2014 2015
ACM-ICPC EC-Final 2016 China-Final

1 ACM

1998 17 2001

2015 2016 2017 ACM-ICPC 128
ACM

ACM

ICPC o g éC‘1•

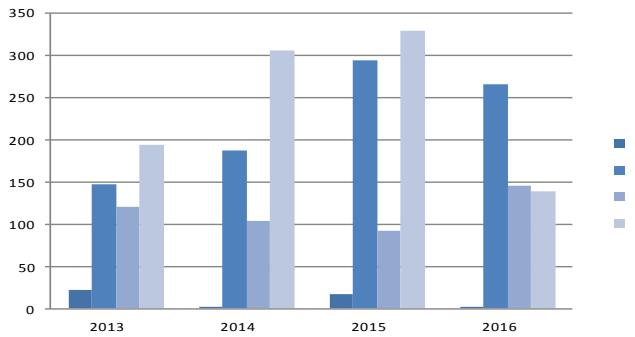
2014 4

2016

40

2

1.



4-5 **2013-2016**

2.

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2016 8 12 4

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2016 9 12

lecture seminar

(The Aspect of Irish Folklore),

2

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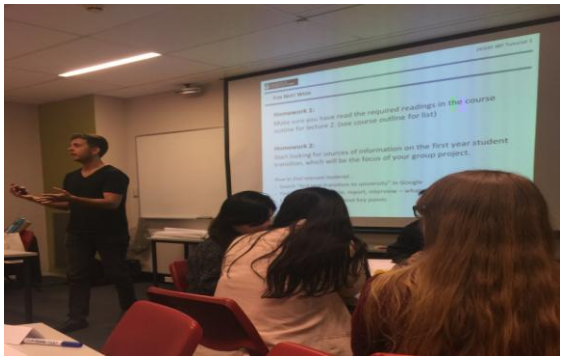
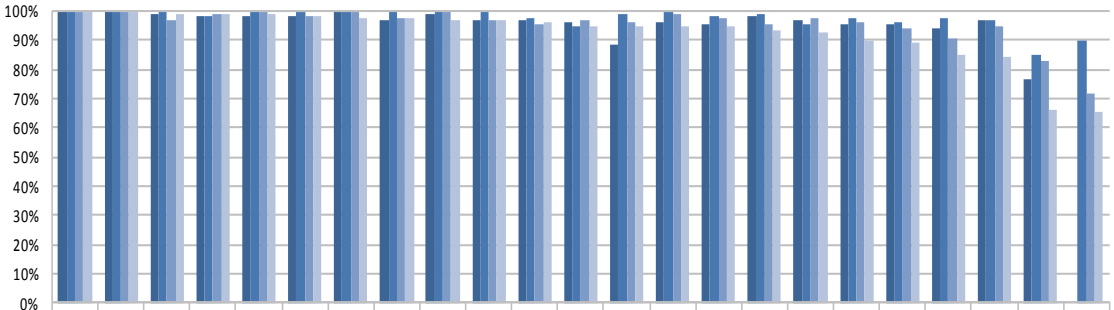


3

5-1 2013-2016



13	100%	100.00%	99.02%	98.52%	98.24%	98.71%	100.00%	97.26%	99.24%	96.93%	96.88%	96.00%	88.55%	96.36%	95.64%	98.65%	96.90%	95.44%	95.82%	94.38%	96.72%	76.66%	
14	100%	100.00%	99.58%	98.47%	99.63%	100.00%	100.00%	99.72%	100.00%	99.57%	97.80%	95.00%	98.83%	100.00%	98.69%	98.82%	95.73%	97.96%	96.31%	97.65%	97.12%	85.07%	89.80%
15	100%	100.00%	97.26%	99.29%	99.68%	98.63%	100.00%	97.59%	100.00%	96.88%	95.69%	97.18%	96.41%	99.05%	97.48%	95.83%	97.42%	96.12%	94.52%	90.91%	94.60%	82.93%	71.70%
16	100%	100.00%	99.38%	98.94%	98.81%	98.20%	97.62%	97.44%	97.14%	97.12%	96.15%	95.00%	94.65%	94.59%	94.57%	93.33%	92.71%	89.85%	89.04%	85.00%	84.31%	66.25%	65.63%

5-1 2013-2016

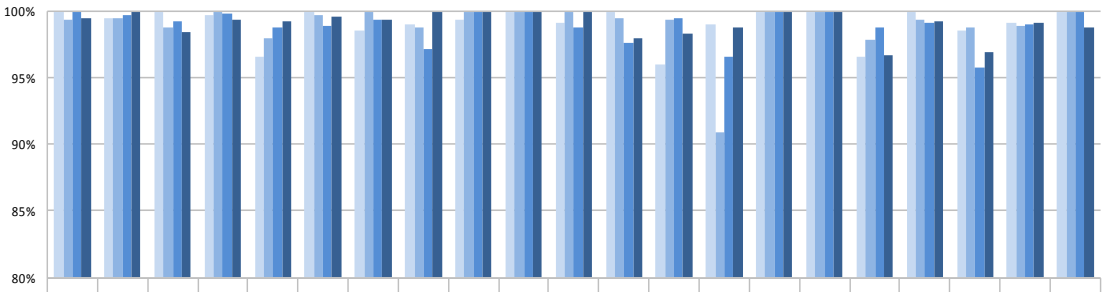
1. 2014
2. = /
3. 8 30

2013-2016 5-2

95.60%

5-2 2013-2016

5-3

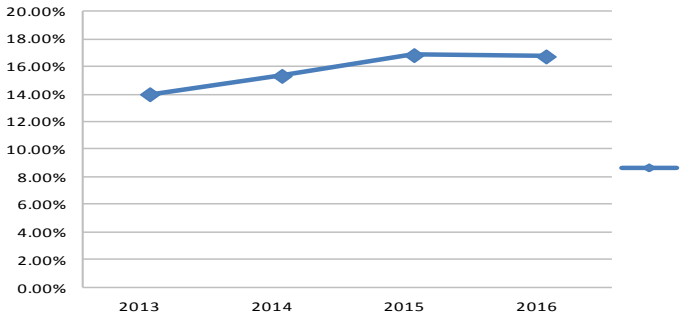


13	100%	99.46%	100%	99.70%	96.64%	100%	98.57%	98.98%	99.37%	100%	99.13%	100%	95.99%	99.02%	100%	100%	96.59%	100%	98.59%	99.11%	100%
14	99.40%	99.51%	98.76%	100%	98.03%	99.68%	100%	98.77%	100%	100%	100%	99.54%	99.39%	90.94%	100%	100%	97.85%	99.44%	98.82%	98.89%	100%
15	100%	99.77%	99.29%	100%	98.76%	98.87%	99.36%	97.18%	100%	100%	98.82%	97.67%	99.45%	96.63%	100%	100%	98.79%	99.13%	95.83%	99.02%	100%
16	99.44%	100%	98.48%	99.35%	99.23%	99.66%	99.41%	100%	100%	100%	100%	97.94%	98.38%	98.77%	100%	100%	96.75%	99.32%	96.97%	99.20%	98.77%

5-3 2013-2016

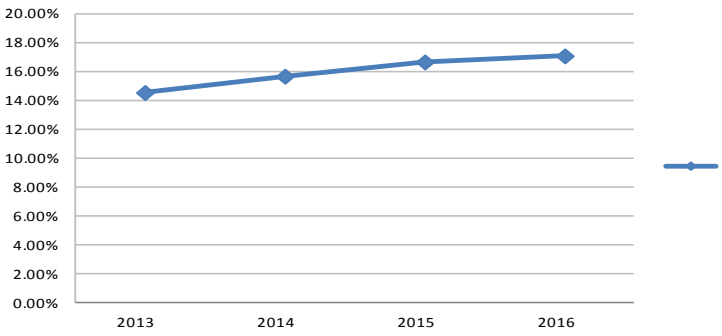
2016 9

5-4 2013-2016



5-4 2013-2016

5-5 2013-2016

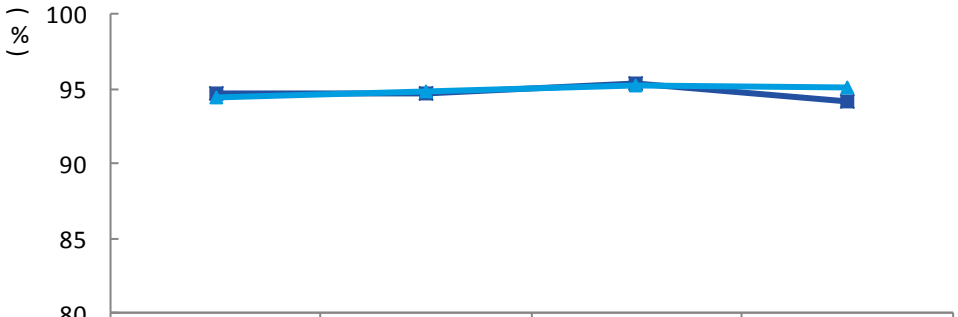


5-5 2013-2016

2013 2016 2012 2015

1. [5]

2015 94.2% 2014
95.4% 1.2 95.1%
94%



	2012	2013	2014	2015
	94.7	94.7	95.4	94.2
"211"	94.4	94.9	95.3	95.1

5-6

2012 2013 ~2015 [6]

[5]

32

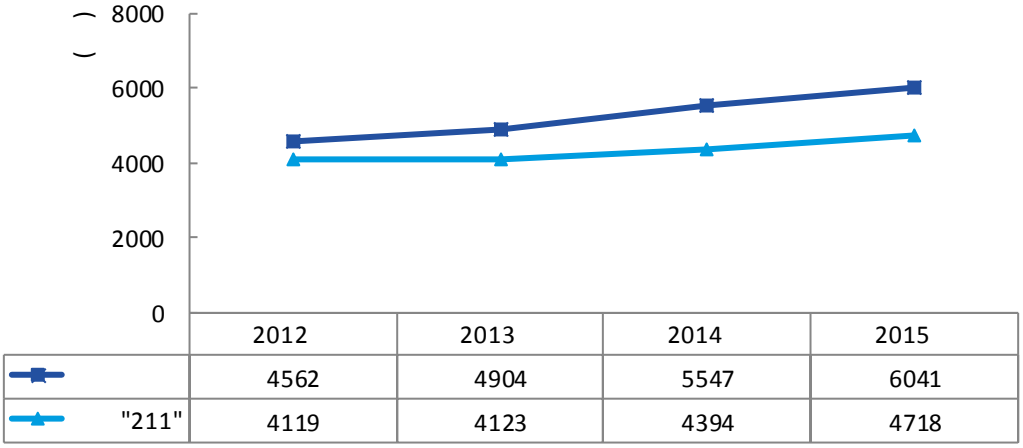
20 31

[6]

2.

1 [7]

2015 6041 2014 5547
494 4718 1323



5-7

2012 2013 ~2015 [8]

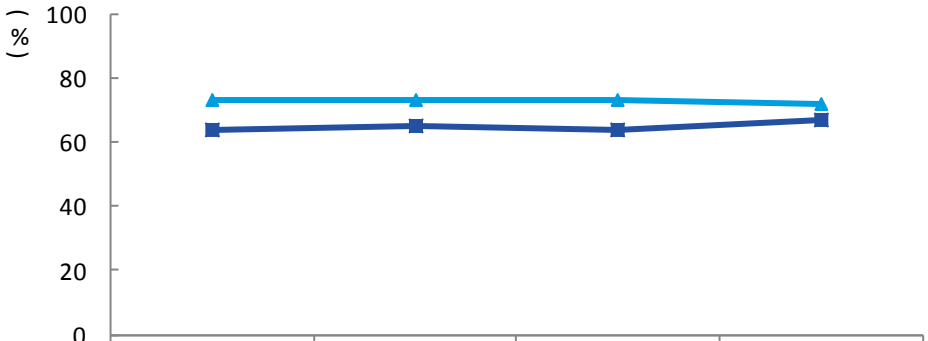
2 [9]

2015 67% 2014 64%
3 72% 5

[7]

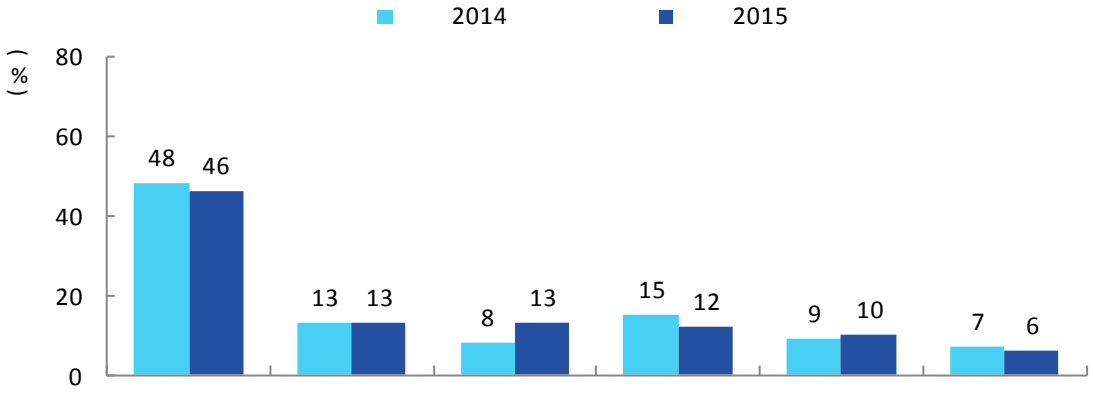
[8]

[9]



	2012	2013	2014	2015
	64	65	64	67
"211"	73	73	73	72

5-8



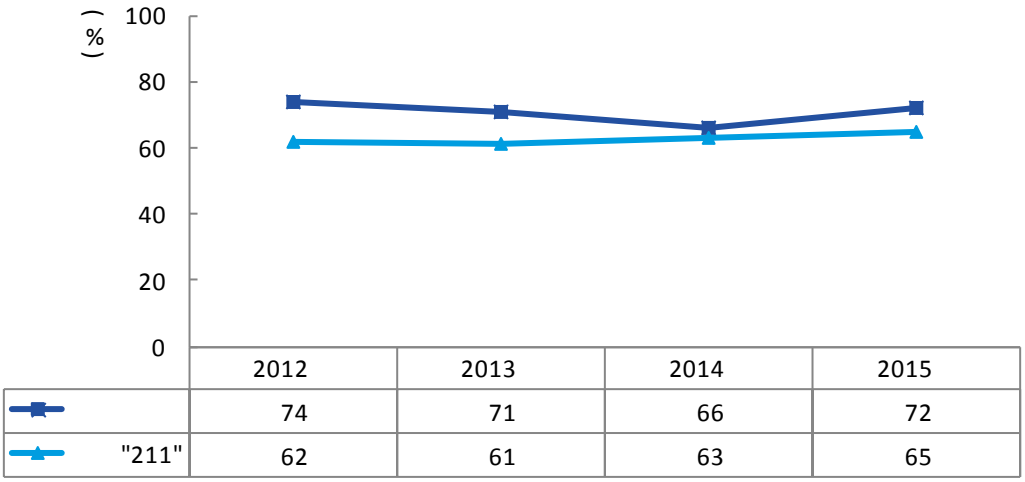
5-9

3 **10**

2015 72% 2014 66% 6

65% 7

10



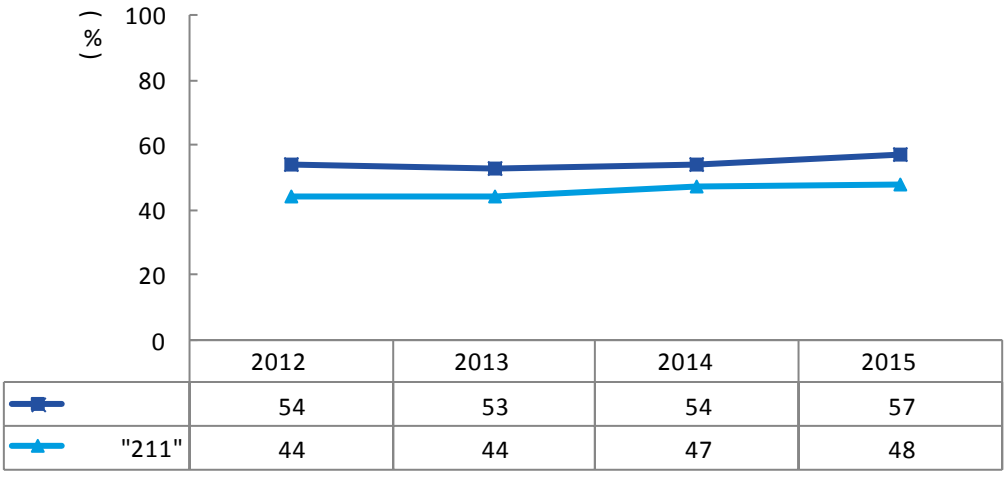
	2012	2013	2014	2015
	74	71	66	72
"211"	62	61	63	65

5-10

4 [11]

2015 57% 2014 54%

3 48% 9



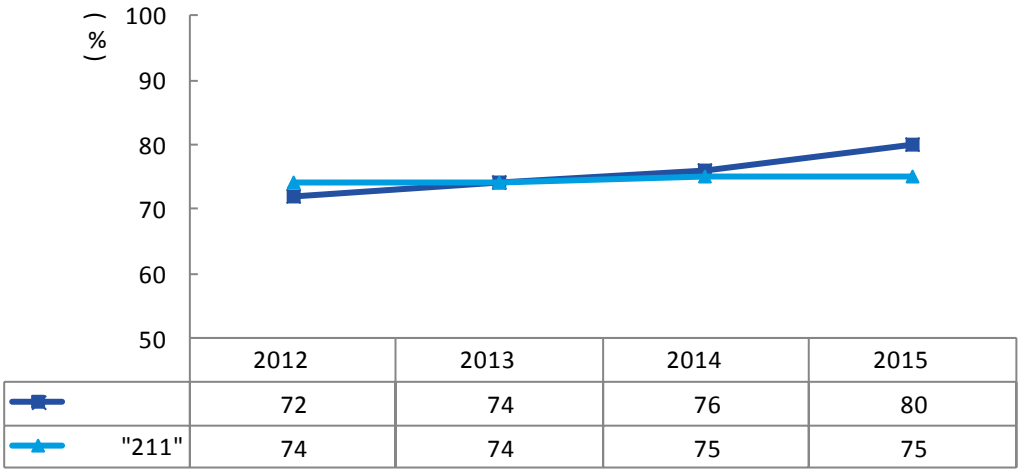
	2012	2013	2014	2015
	54	53	54	57
"211"	44	44	47	48

5-11

11

1. [12]

2015 80% 2014 76% 4 75% 5



	2012	2013	2014	2015
	72	74	76	80
"211"	74	74	75	75

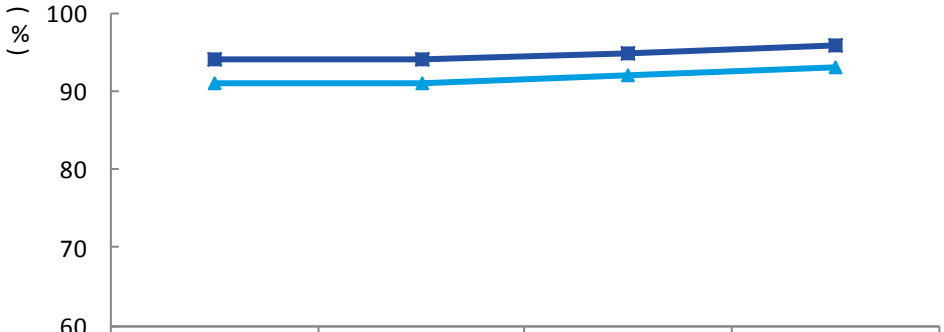
5-12

2. [13]

2015 96% 2014 95% 93% 3

12

13



	2012	2013	2014	2015
	94	94	95	96
"211"	91	91	92	93

5-13

1. [14]

/

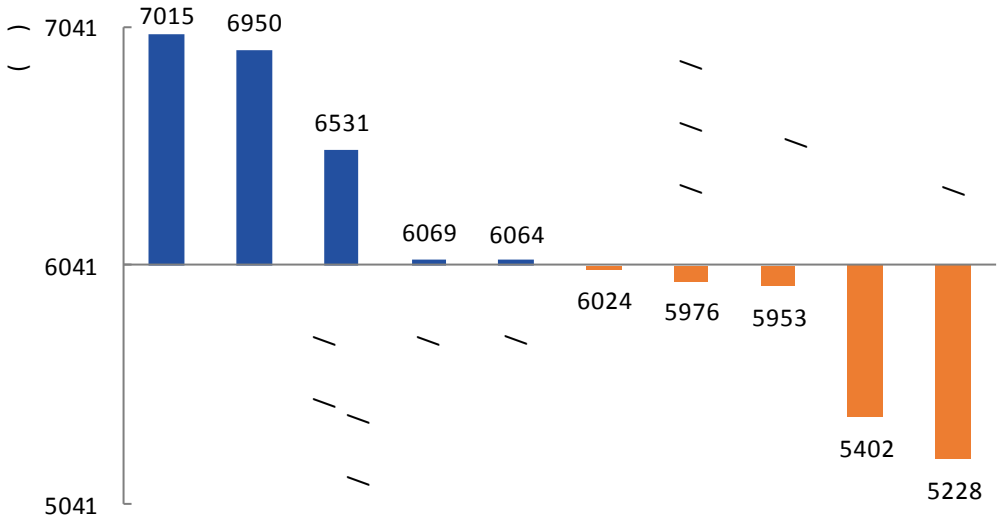
/ / / /

5-1

	2013 %	2014 %	2015 %	
/ / / /	11.1	10.6	11.7	
	3.1	6.0	9.0	
	7.5	8.6	7.8	
/ / /	7.4	5.8	6.3	
/	5.7	4.8	5.4	
	7.3	6.5	5.3	
	7.4	4.6	5.3	
/	7.7	7.9	5.0	
/	2.6	4.4	4.8	
/	4.4	4.1	4.7	

2015

[14]



5-14

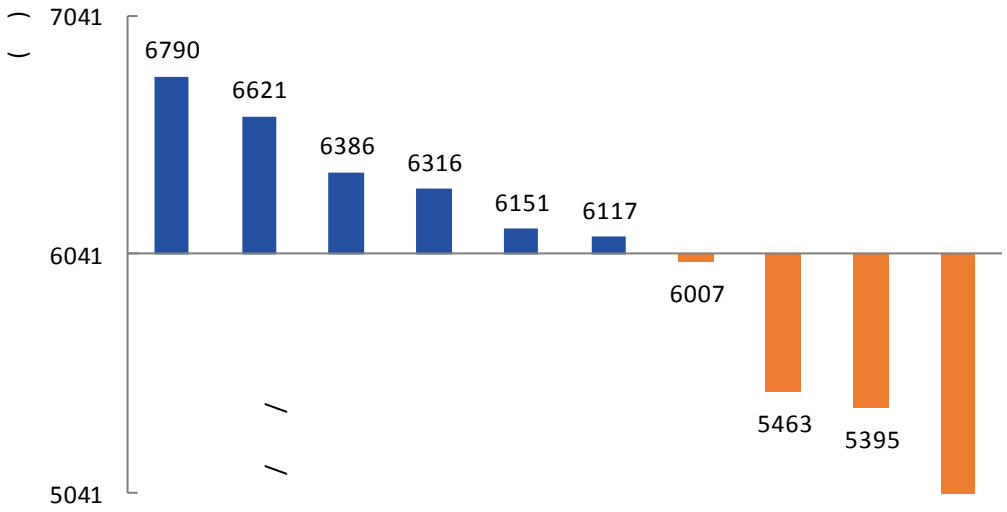
2. [15]

5-2

	2013 %	**2014 %**	**2015 %**	
	12.8	16.0	17.9	
/ /	17.5	15.0	17.3	
	6.3	6.5	7.6	
	7.9	10.8	7.3	
	7.8	7.7	6.7	
	5.6	4.7	6.4	
	4.4	3.9	5.0	
	5.6	5.4	4.5	
	3.6	3.3	4.2	
	6.1	4.6	3.6	

2015

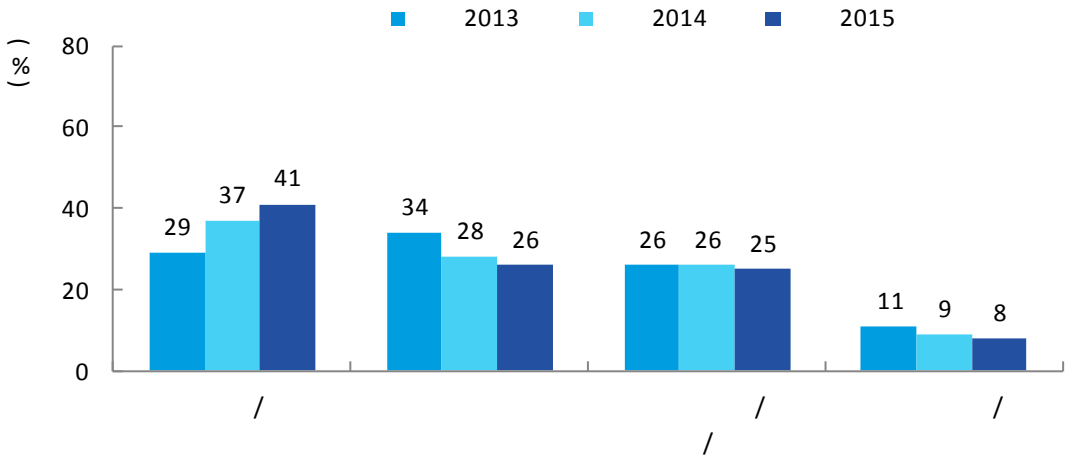
15



5-15

3.

2015 / 41%
2014 37% 4 26% 2014
28% 2 / /
6467



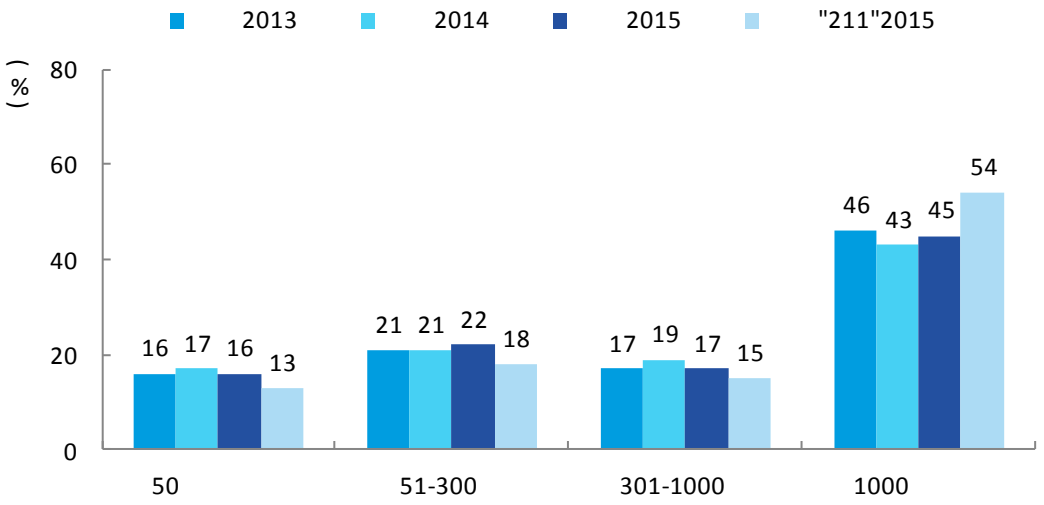
5-16

NGO 1%

4.

2015 1000 45%
2014 43% 2 54% 9

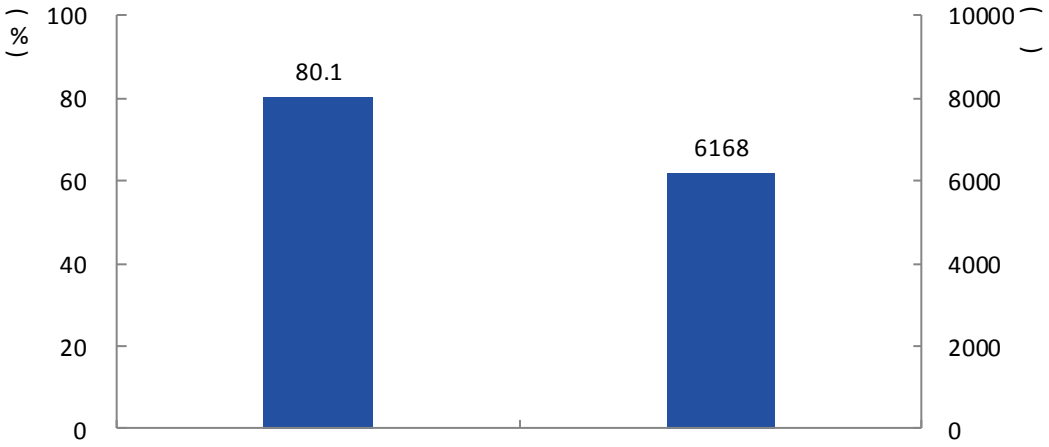
300 38% 2014 38%
31% 7



5-17

5.

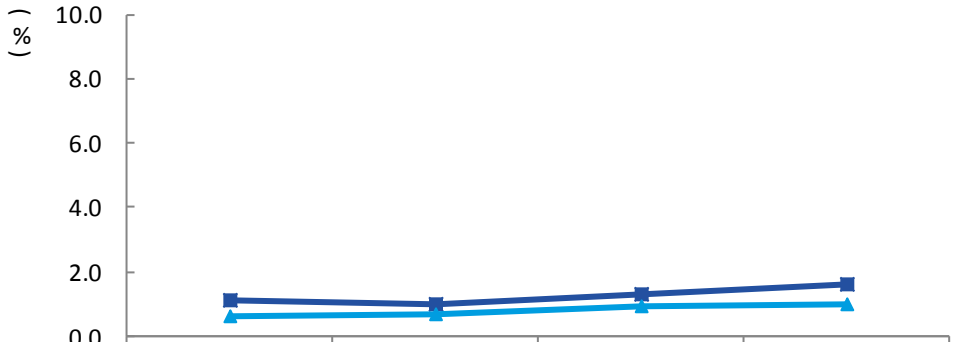
2015 80.1%
6168



5-18

1.

0.9% 1.3% 1.3% 3.8%

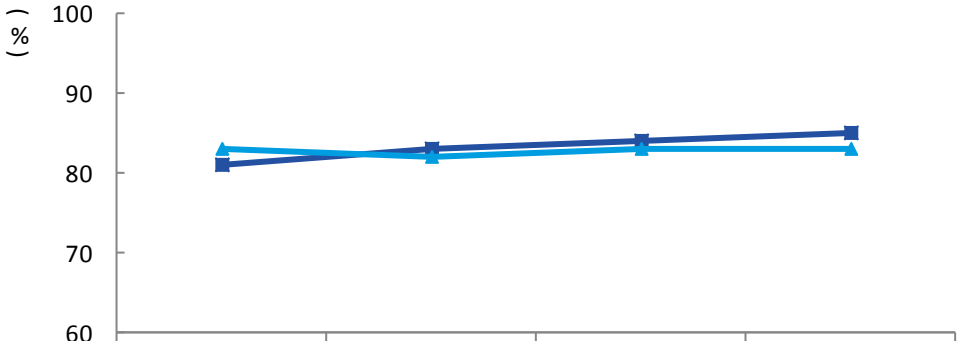


	2012	2013	2014	2015
	1.1	1.0	1.3	1.6
"211"	0.6	0.7	0.9	1.0

5-19

2. **16**

74% 83%



	2012	2013	2014	2015
	81	83	84	85
"211"	83	82	83	83

5-20

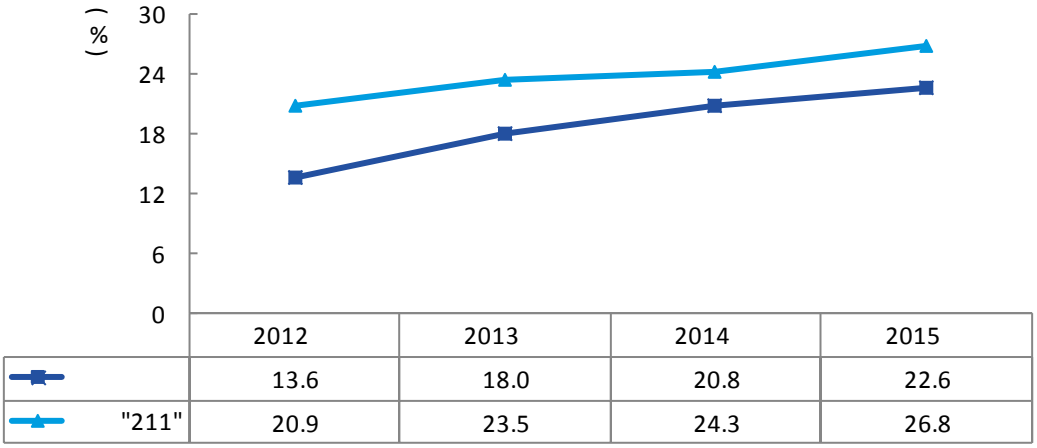
16 35

76 4-1

1.

1

2015 22.6% 2014 20.8%
1.8 26.8% 4.2

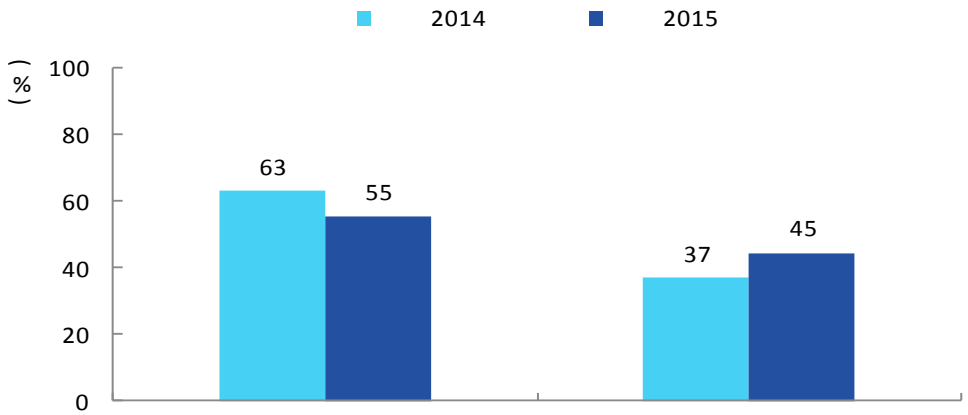


	2012	2013	2014	2015
	13.6	18.0	20.8	22.6
"211"	20.9	23.5	24.3	26.8

5-21

2

2015 55% 45%



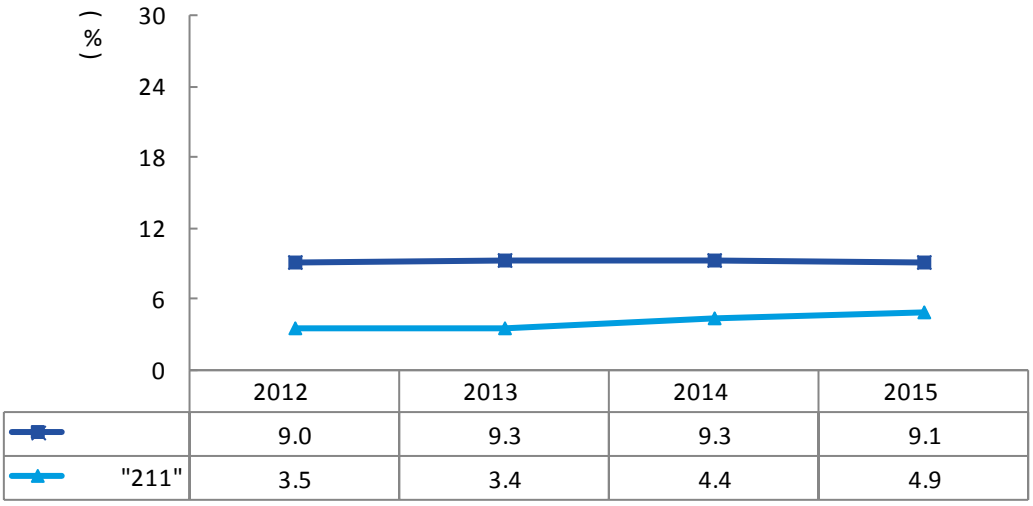
5-22 /

2.

1

2015 9.1% 2014 9.3%

4.9% 4.2

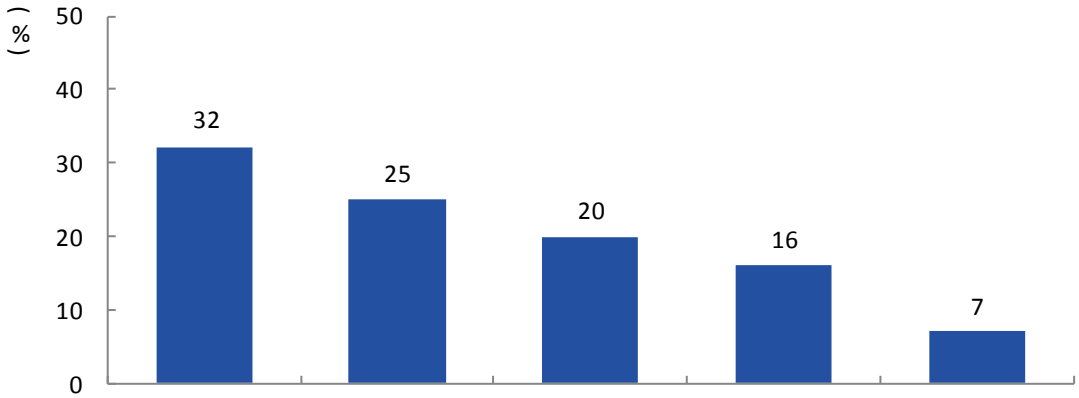


5-23

2

2015 32%

25%



5-24

17

2016

1.

2.

3.

4.

17

( )

1.

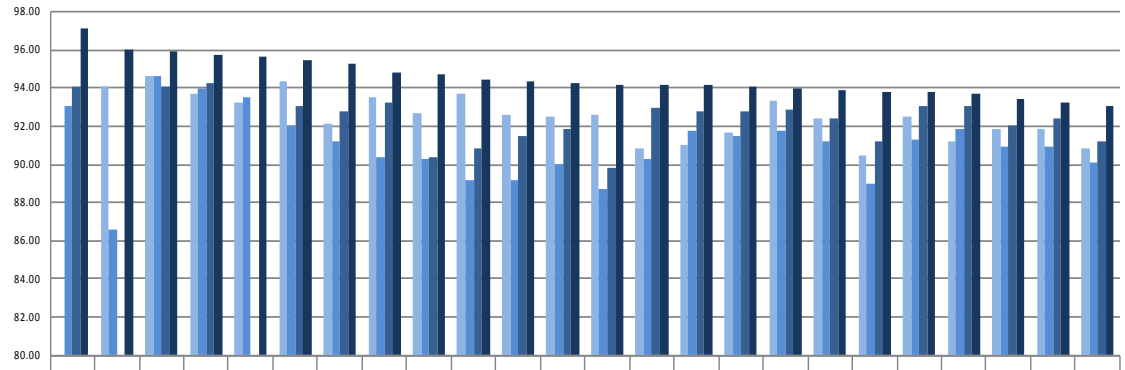
1

6-2 2013-2016

2013-2016

2

2016 6-3



13		94.08	94.67	93.70	93.24	94.40	92.16	93.54	92.69	93.76	92.59	92.51	92.65	90.89	91.03	91.63	93.32	92.38	90.51	92.54	91.20	91.84	91.84	90.81
14	93.02	86.57	94.68	94.03	93.51	92.06	91.26	90.41	90.28	89.21	89.21	90.05	88.73	90.25	91.74	91.51	91.73	91.21	89.02	91.30	91.82	90.97	90.95	90.12
15	94.04		94.09	94.30		93.02	92.83	93.29	90.37	90.86	91.47	91.83	89.87	93.00	92.83	92.80	92.91	92.39	91.18	93.07	93.03	92.07	92.38	91.24
16	97.10	96.07	95.95	95.74	95.61	95.46	95.26	94.84	94.69	94.47	94.34	94.30	94.20	94.20	94.17	94.12	94.00	93.88	93.80	93.77	93.70	93.46	93.28	93.10

6-3 2013-2016

2.

2015 9

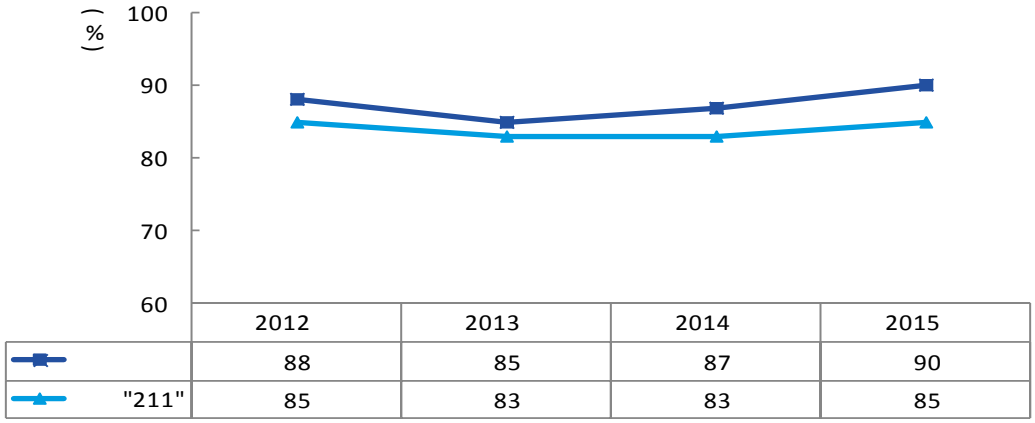
6-1 2016

6-1

( )

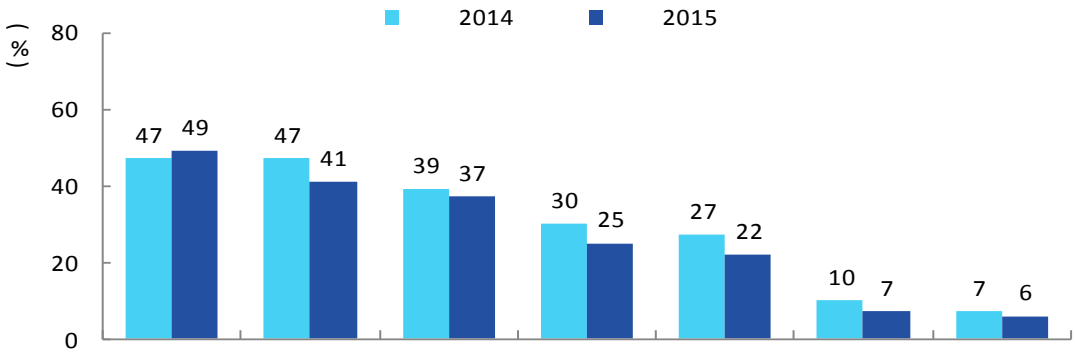
1. **18**

2015 90% 2014 87%
3 85% 5



6-5

2015
49% 41%
37% 10-1



6-6

18

2.

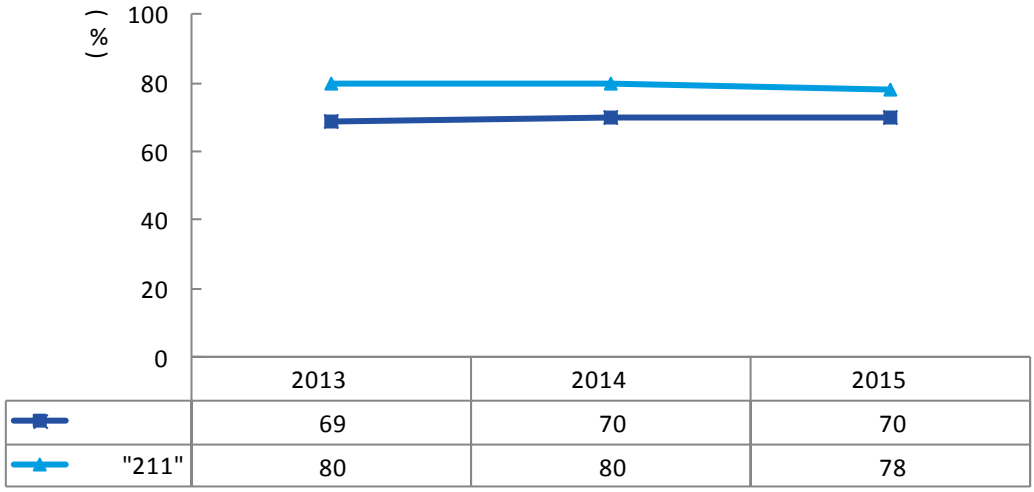
1 [19]

2015 70%

2014 70%

71%

2014 69% 2



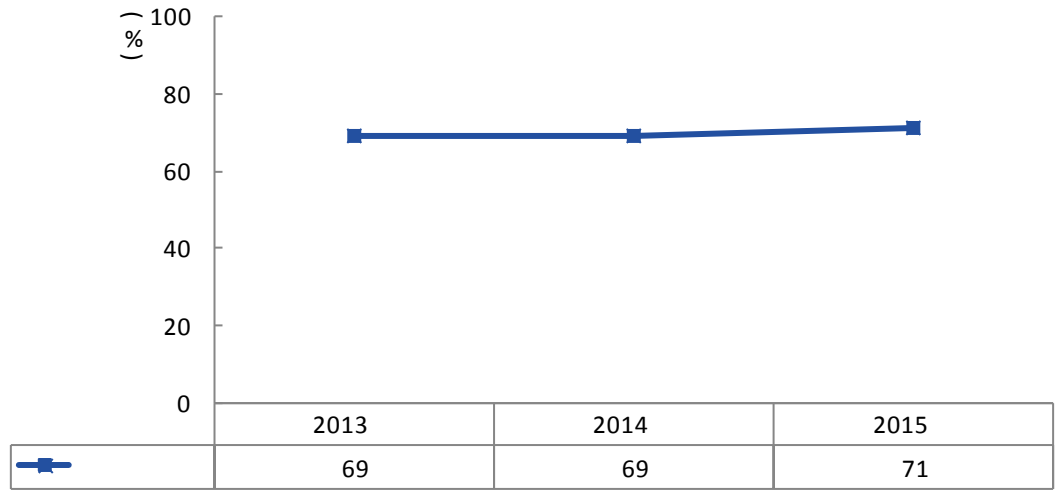
	2013	2014	2015
	69	70	70
"211"	80	80	78

6-7

2 [20]

[19]

[20]

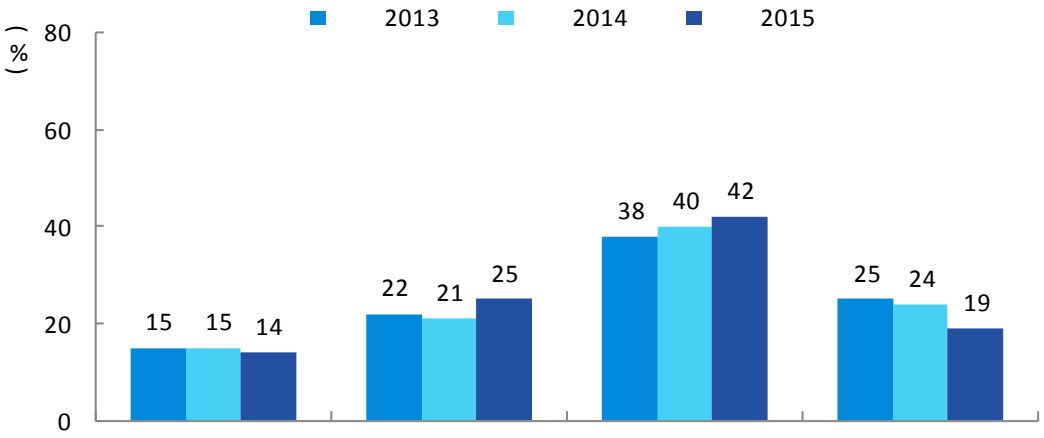


6-8

3.

2015 39%

2013 37% 2014 36%



6-9

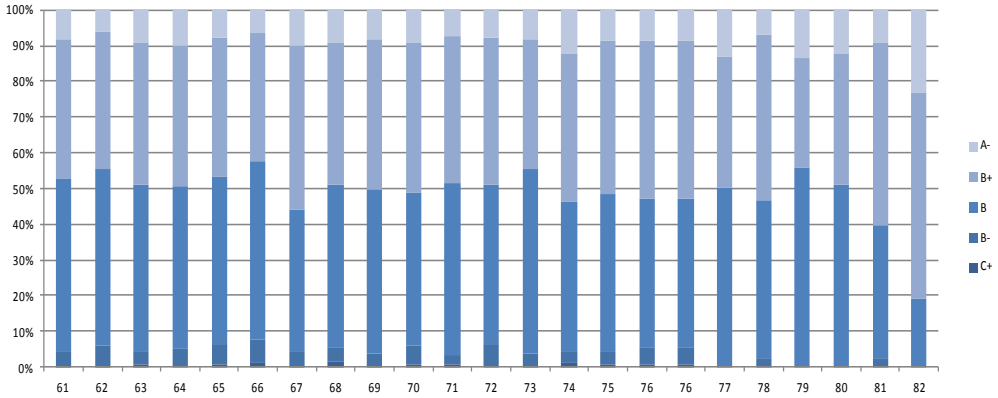
1.

2004 49

2017 3 82

61 - 82 2013 9 -2017 3

6-9

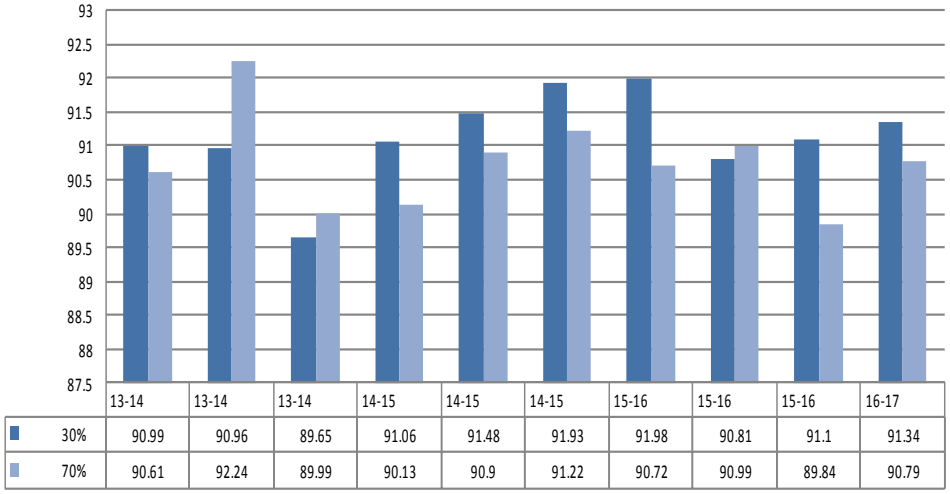


6-10

61-82

A:95-100 A-:90-94 B+: 8589 B:8084 B-:75-79 C+:7074 C:6069 D:<60

6-10

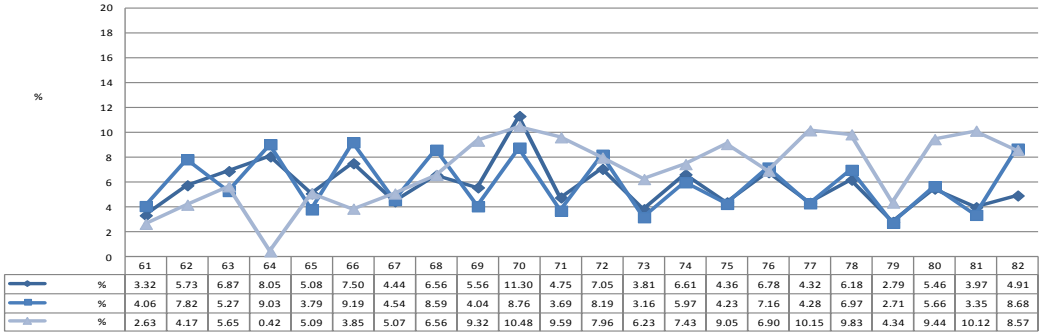


	13-14	13-14	13-14	14-15	14-15	14-15	15-16	15-16	15-16	16-17
30%	90.99	90.96	89.65	91.06	91.48	91.93	91.98	90.81	91.1	91.34
70%	90.61	92.24	89.99	90.13	90.9	91.22	90.72	90.99	89.84	90.79

6-11 2013-2016

2.

2013-2016 61-82



	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82
%	3.32	5.73	6.87	8.05	5.08	7.50	4.44	6.56	5.56	11.30	4.75	7.05	3.81	6.61	4.36	6.78	4.32	6.18	2.79	5.46	3.97	4.91
%	4.06	7.82	5.27	9.03	3.79	9.19	4.54	8.59	4.04	8.76	3.69	8.19	3.16	5.97	4.23	7.16	4.28	6.97	2.71	5.66	3.35	8.68
%	2.63	4.17	5.65	0.42	5.09	3.85	5.07	6.56	9.32	10.48	9.59	7.96	6.23	7.43	9.05	6.90	10.15	9.83	4.34	9.44	10.12	8.57

6-12

55-76

2004

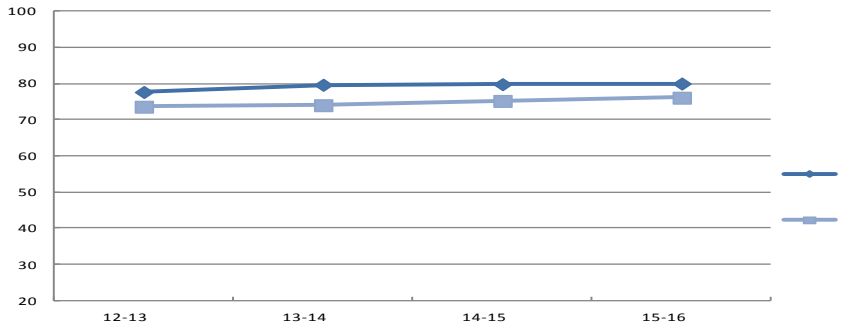
3.

2010-2011

2015-2016

80

30



6-13 2012-2016

2012-2016 8 - 11

3-5

14 45 15

2016

6

85% 4

1.

2.

3.

4.

5.

6.

1.

2.

3.

4.

5.

6.