1912 1952

1985

2008 1914 9 1

3 1600

58.6

2 3

10 4

47 10 1 3

3 9 5

3 20 2

8 1 4 2

7 14

1

18 3

12 12300

2380 1200 900

500 600 2

1 2

2 2 6

2 13

1 2 2

5 6 9

2 3 2

3 20 4

18 21 10 6

8

3 3

1 1

1 1 E- 1

1

SHOU NOAA

CNAS CMA

157

GIS

13

143

94 40

Aquaculture and Fisheries

2010

90

23 85

170

24

2020

-
-
-

39

7 5 12

1 1

1

		020301K		
		020401		
		030302		

2015 2014

2

●

●

2 2014

			38
			10
			30~45

3

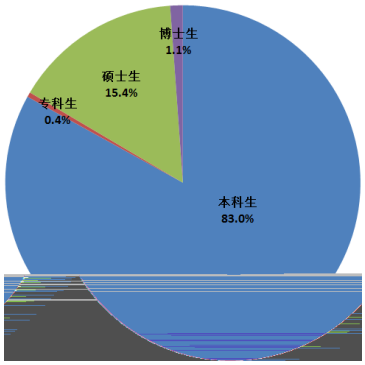
3

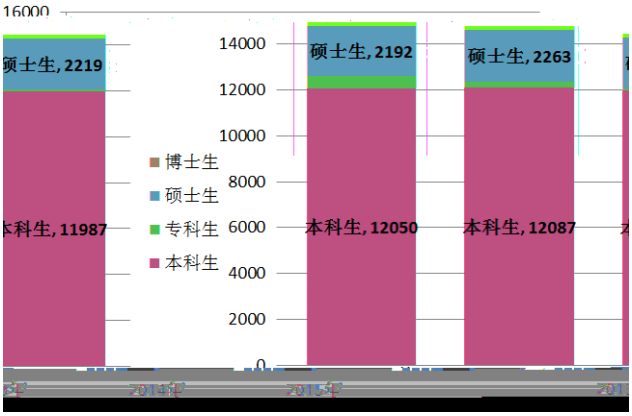
	16	1
	32	1
	32	1
	32	1
	2 32	1
	1	1
	1	1

38 40

11987 64 2219

165 1 2





2 2013-2015

1 2015

2015

7

20

31

3002

53.74% 8.4%

95.8% 92.4%

2015 112552.6 121447.6

5110.0 4262.95 578.0

482 882.0 735

1

1600

40 1

205 2 LED

2

4 1 66

2

143.8 94.7

6.8 30

24 2015

11.2

3

600 3.5

31 8

8 16 2660 1

4

23 85

2015

1703 4127 467

25.9% 60

65.7% 240 360

10 +

2015

450 813 2492

55%

178 202

2016

620 58.4%

2016

100%

1

2015 257 55

170 32 80

150

2016

2

3

2015 396 3600

1 24

2

6

4

2015 9282 825.24

1065.06 950.18

82.75 31.5 271.58

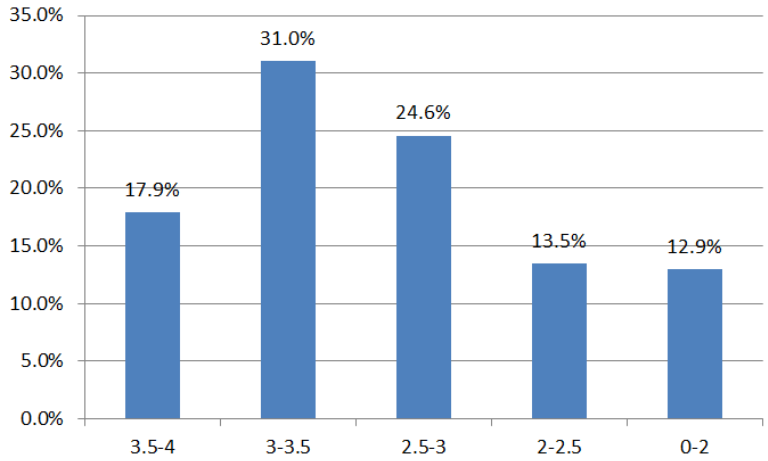
2015

2010-2015

1

4 3.0

50% 7



7 2015

2

2015 138

10

2015

500 555

280 7% 9

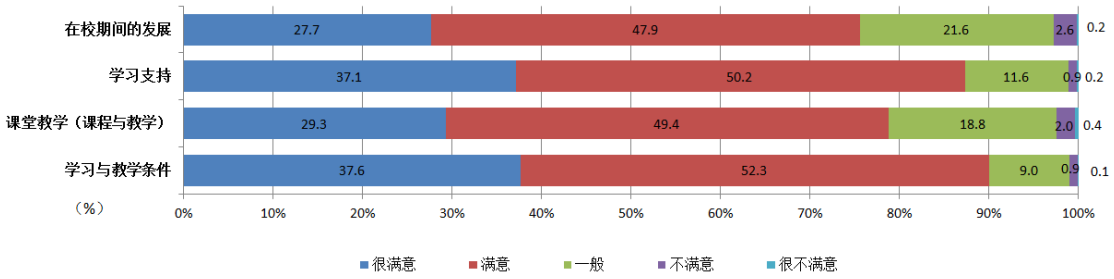
2016 3178 3031

95.4%

159~177 167 3156

2016 96.13% 46

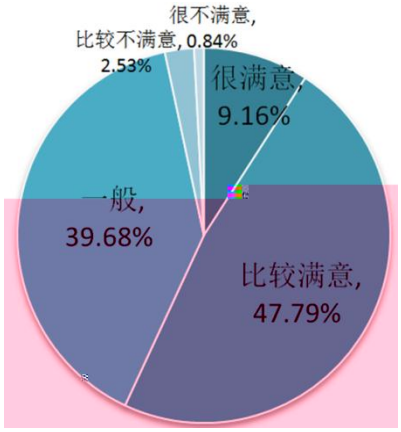
95% 33 10



10

3

96.63%



11 2015

2015 2014

(

)

191

22

PBL

FD

FD

FD FD

IFT

FD 16

580

16 3

5 5

4

2015 42

26 6

10

1

		( )	( )
		48334.9	166621.2
		31595.7	
		73214.2	
		5513.4	
		7963	
		24856	24856
		150816.1	217506.1
		18377.3	
		6039.6	
		42273.1	

2

	13 7
	134 1
	7.97
	5,615
	534
	19,846
	279,319.3
	55,732.8
	9,073.8

3

	16.63	18	22
%	86.82	30	10
(/)	13.39	16	9
(/)	32817.57	5000	3000
(/)	78.96	80	40

4

(%)	48.58	30
(/)	94.08	59
(/)	10.35	6.5
	34.67	10
	139.90	7
%	19.45	10
( )	4.69	3

5

	31	28	90.3%
	11	10	90.9%
	19	17	89.5%
	7	7	100.0%
	7	7	100.0%
	4	4	100.0%
	2	2	100.0%
	7	6	85.7%
	17	8	47.1%
	105	**89**	**84.76%**

6

	497	897.5	170	296.5
	242	539.5	48	95
	269	657.5	35	92
	420	773	97	189.5
	372	919	26	62
	440	715	13	16
	515	1367	29	79
	598	1706.5	28	84
	257	436.4	2	1.5
	414	1701.5	17	74.5
	106	112.5	2	1.5
	4130	**9825.4**	**467**	**991.5**

7

		%		%		%
<30	452	21.54	592	29.18	1044	25.30
30-59	816	38.89	852	41.99	1668	40.42
60-89	334	15.92	331	16.31	665	16.11
>=90	496	23.64	254	12.52	750	18.17
	2098	**/**	**2029**	**/**	**4127**	**/**

8

	1	2	48	51	1	6	52	59
	0	2	22	24	0	6	23	29
	1	5	20	26	1	8	39	48
	0	3	35	38	0	4	40	44
	0	1	21	22	0	1	44	45
	0	11	25	36	0	14	28	42
	1	1	12	14	1	3	15	19
	5	0	21	26	31	0	40	71
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	3	0	0	3	3	0	0	3
	11	**25**	**204**	**240**	**37**	**42**	**281**	**360**

9

			%
	1142	67	5.9
	978	34	3.5
	1728	72	4.2
	2503	59	2.4
	1296	15	1.2
	1265	24	1.9
	749	33	4.4
	862	124	14.4
	1464	127	8.7
	11987	**555**	**4.63**

10 2016

				%		%
		18	16	88.9%	16	88.9%
		33	30	90.9%	30	90.9%
		32	32	100.0%	32	100.0%
		69	65	94.2%	65	94.2%
		40	40	100.0%	40	100.0%
		49	46	93.9%	46	93.9%
		27	27	100.0%	27	100.0%
		33	33	100.0%	33	100.0%
		36	34	94.4%	34	94.4%
		32	28	87.5%	28	87.5%
		27	25	92.6%	25	92.6%
		32	31	96.9%	31	96.9%
		38	37	97.4%	37	97.4%
		45	42	93.3%	42	93.3%
		61	57	93.4%	57	93.4%
		37	33	89.2%	33	89.2%
		85	82	96.5%	82	96.5%
		80	77	96.3%	77	96.3%
		64	64	100.0%	64	100.0%
		68	66	97.1%	66	97.1%
		33	32	97.0%	32	97.0%
		98	98	100.0%	98	100.0%
		105	103	98.1%	103	98.1%
		131	130	99.2%	130	99.2%
		118	117	99.2%	117	99.2%
		39	39	100.0%	39	100.0%
		90	87	96.7%	87	96.7%
		59	55	93.2%	55	93.2%
		77	74	96.1%	74	96.1%
		56	56	100.0%	56	100.0%
		141	137	97.2%	137	97.2%
		64	62	96.9%	62	96.9%
		63	62	98.4%	62	98.4%
		57	51	89.5%	51	89.5%
		60	56	93.3%	56	93.3%
		58	53	91.4%	53	91.4%
		151	143	94.7%	143	94.7%
		59	59	100.0%	59	100.0%

				%		%
		85	78	91.8%	78	91.8%
		68	67	98.5%	67	98.5%
		35	34	97.1%	34	97.1%
		66	64	97.0%	64	97.0%
		114	91	79.8%	91	79.8%
		94	90	95.7%	90	95.7%
		185	174	94.1%	174	94.1%
		166	154	92.8%	154	92.8%
		3178	**3031**	**95.4%**	**3031**	**95.4%**

11 2016

				%
		18	18	100.00
		33	31	93.94
		32	31	96.88
		69	59	85.51
		40	39	97.50
		49	49	100.00
		27	27	100.00
		33	33	100.00
		36	35	97.22
		32	30	93.75
		27	27	100.00
		32	32	100.00
		38	33	86.84
		45	43	95.56
		61	60	98.36
		85	81	95.29
		80	75	93.75
		64	63	98.44
		68	63	92.65
		33	31	93.94
		98	95	96.94
		105	101	96.19
		131	125	95.42
		118	117	99.15

				%
		39	38	97.44
		90	87	96.67
		59	59	100.00
		77	73	94.81