



Current Situation of Teachers of Informatics at High Schools in Japan

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Senior highschool subject “Informatics”

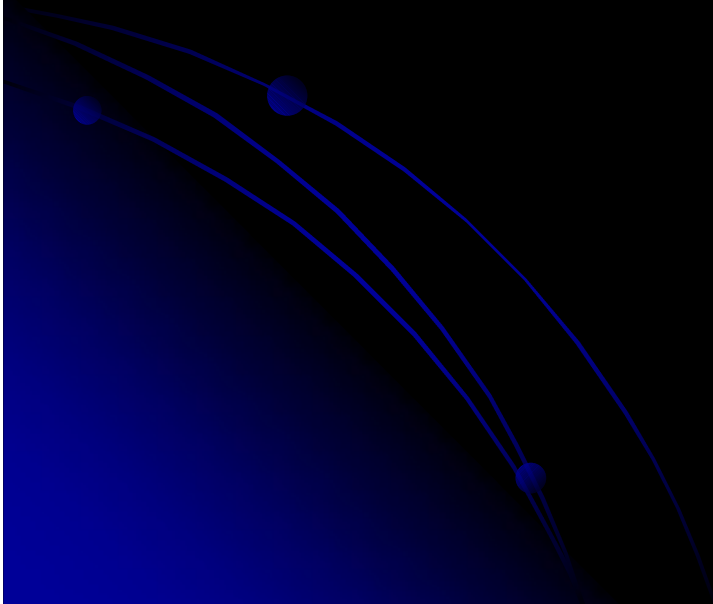
- Senior Highschool (Age 15-17)
- “Informatics” introduced in 2003
- Once revised in 2013
- Next revision in 2022
 - National guideline (detailed) just announced
- “Informatics I” **mandatory**, and “II” optional
 - They mainly consists of scientific approach
- National entrance exam for univ. will begin in 2025 for “Informatics I”

In order to teach Informatics to students...

- Wide range of knowledge and skills related to Informatics are required
- Teacher's license system in Japan –
 - requires 4 years study in college
- Licence for teaching Informatics class –
 - includes both study on Informatics and Pedagogy
- But...

There are many unlicensed teachers who teach Informatics

- Researchers in educational administration have brought attention to this since 2003.
- But there has been little improvement.



In 2003 when subject of Informatics was introduced...

- No licensed teachers existed because the subject did not exist.
- Special rules have been applied.
 1. Training course held from 2000 to 2003
 - A teacher who holds a license for another subject such as Mathematics, Science, etc. can obtain a license for Informatics by training for 15 days.
 - Permanent licence are given after the 15 days study. So they are not “licences teacher.”

Two kinds of “Teacher without proper license”

2. ‘temporary teachers’

3. ‘teachers without a proper license’

- Can be also applied to other subjects
- But for Informatics, used especially widely comparing to other subjects.

We have collected data

In each pref./cities, who teach Informatics?

- Teachers with proper licence who are:
 - assigned only for Informatics
 - Assigned Informatics and other subjects
- Teachers with temporary licence
- Teachers without proper licence

Data is Government(MEXT) collected in 2015

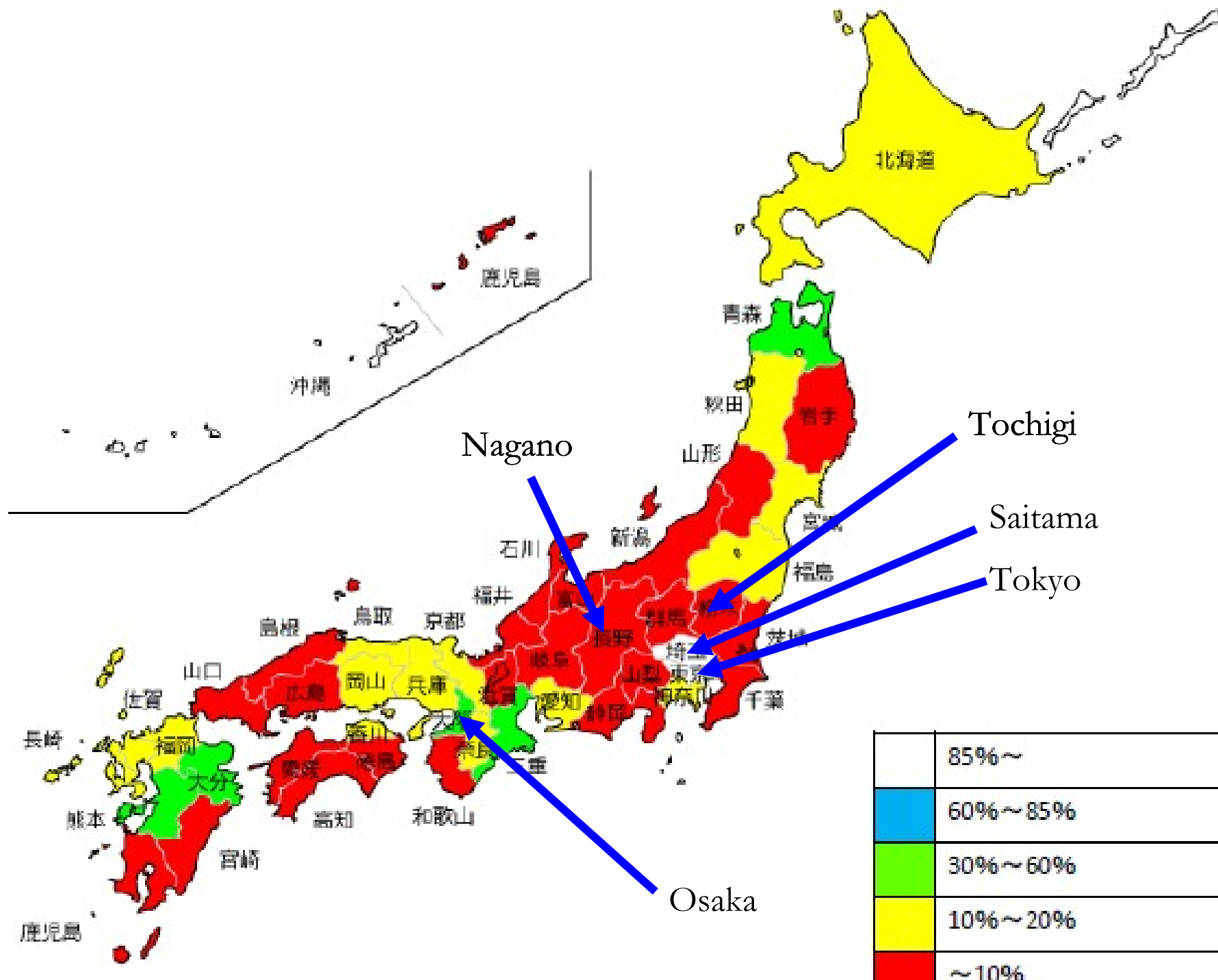
Not include Private/National schools (only a few

Table 3
Teachers assigned for Informatics (47 prefectures and 19 cities, May 2015)

	Full-time teachers who teach Informatics					Public schools
	Total	Teachers with proper license		Temporary teachers	Teachers without proper license	
		Assigned only for Informatics	In charge of multiple subjects			
47 prefectures	5588 (100)	1059 (19.0)	2657 (47.5)	395 (7.1)	1477 (26.4)	3368
19 cities	178 (100)	64 (36.0)	87 (48.9)	4 (2.2)	23 (12.9)	103
Total	5766 (100)	1123 (19.5)	2744 (47.6)	399 (6.9)	1500 (26.0)	3471

Table 1
Teachers assigned for Informatics (Prefectures, May 2015)

Prefecture	Full-time teachers who teach Informatics					Public schools
	Total	Teachers with proper license		Temporary teachers	Teachers without proper license	
		Assigned only for Informatics	In charge of multiple subjects			
1 Hokkaido	289	37	134	0	118	237
2 Aomori	59	17	22	11	9	50
3 Iwate	99	2	47	15	35	74
4 Miyagi	101	13	43	3	42	76
5 Akita	75	12	42	13	8	58
6 Yamagata	45	3	39	0	3	28
7 Fukushima	120	9	50	61	0	96
8 Ibaraki	114	5	43	15	51	79
9 Tochigi	132	4	20	108	0	52
10 Gunma	130	3	111	3	13	63
11 Saitama	231	210	21	0	0	131
12 Chiba	327	22	305	0	0	124
13 Tokyo	163	163	0	0	0	233
14 Kanagawa	316	66	203	0	47	137
15 Niigata	126	0	58	3	65	95
16 Toyama	83	3	37	2	41	44
17 Ishikawa	105	1	25	20	59	45
18 Fukui	40	1	26	12	1	40
19 Yamanashi	50	1	27	0	22	30
20 Nagano	213	9	60	0	144	102
21 Gifu	149	5	56	5	83	48
22 Shizuoka	126	11	66	0	49	108
23 Aichi	435	57	152	1	225	176
24 Mie	82	30	40	0	12	66
25 Shiga	174	4	76	5	89	42
26 Kyoto	57	10	47	0	0	43
27 Osaka	266	140	116	0	10	142
28 Hyogo	294	74	105	0	115	116
29 Nara	67	10	35	11	11	33
30 Wakayama	86	7	30	11	38	46
31 Tottori	16	4	11	0	1	19
32 Shimane	53	2	39	0	12	38



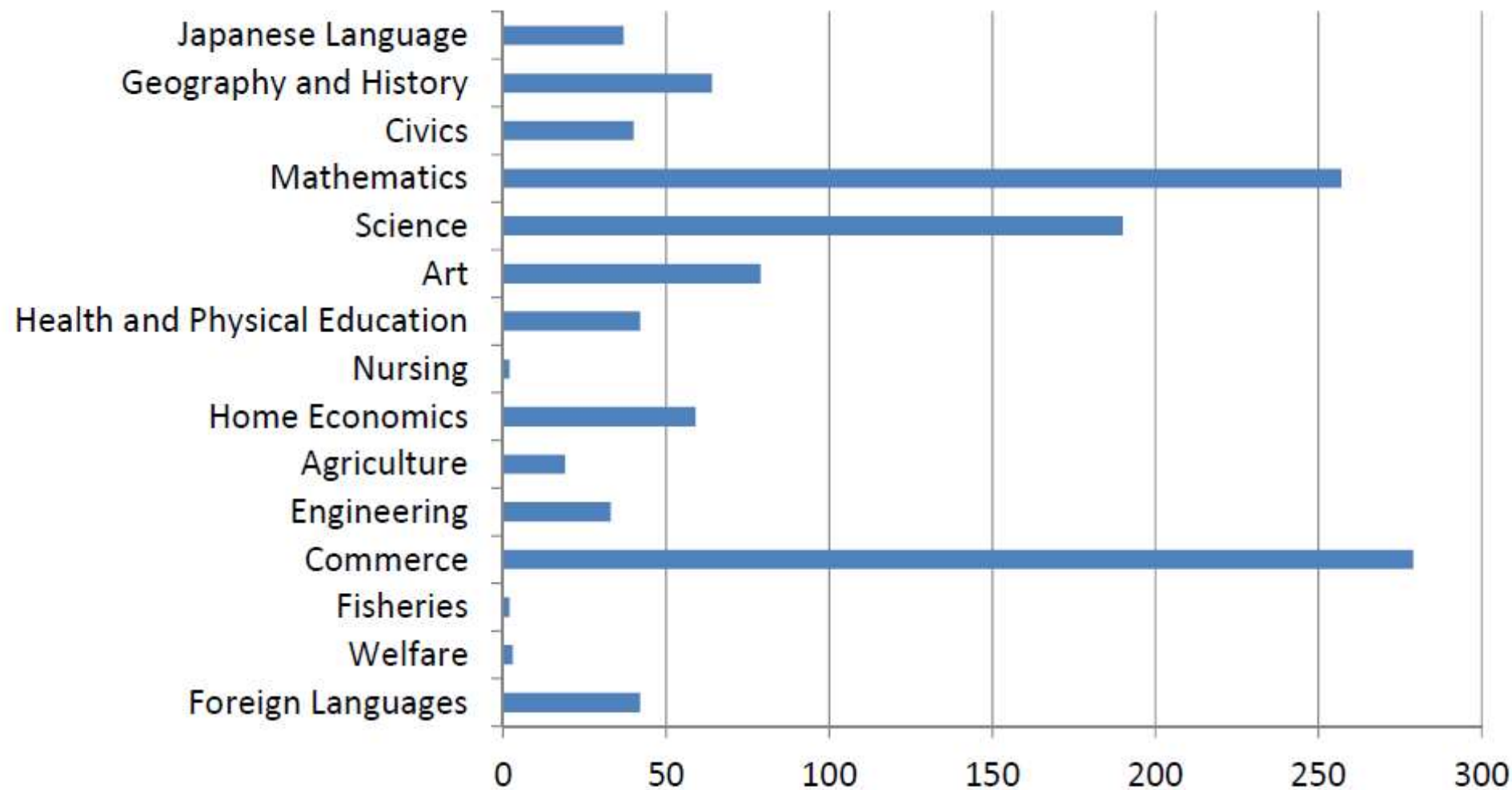


Fig. 2. Licensed subject for teachers who teach Informatics without proper license (May 2017).

Discussion

- A lot of “temporary teachers” and “teachers without a proper license” teach Informatics
 - Especially in rural areas
- Many teachers with proper license teach Informatics and other subjects
 - might have no enough attitude as a Informatics teacher

Conclusion

- Recruitment of teachers are done by prefectures, not by the national government.
- There might be necessary some strong legal constraint.

Please also see...

The Next Course of Study from 2022 and
a History of the Subject “Informatics”
In Japanese High Schools

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