

The Oversupply of Teachers in Taiwan: Causes and Consequences

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This article explores the causes and consequences of the oversupply of primary teaching workforce both in the teaching labor market and in the teaching workplace in Taiwan by examining the historical development of teacher training and its relationship with government policies and social contexts. It uses data from government publications, reports and official statistics, coupled with findings of local Taiwanese research and my ethnographic case study. After the enactment of Teacher Education Act in 1994, there has been expansion of teacher training and diversification of training routes. However, with Taiwan's declining fertility rate, teaching vacancies for qualified teachers have been scarce, resulting in the oversupply of teachers. This article further argues that the oversupply of primary school teachers is the result of an obvious decline in pupil enrollments, combined with low teacher turnover rates and the prevalence of young teachers among the overall teaching body.

Keywords: primary teaching; teacher surplus; teacher training in Taiwan

The OECD's research suggests teacher shortage problems as major concerns in many countries (White & Smith, 2005). For example, teacher shortages have been found in the primary teaching workforce in the U.S. and the U.K. during the past two decades (Dolton, 2006; Ingersoll, 2003). The focus of concerns was on the significance of causal factors such as pupil enrollments, teachers' salaries, the desired pupil-teacher ratios and teacher turnover rates in accounting for the demand for more teachers (Dolton, 2006).

In sharp contrast to the above cases, some Asian regions, including Japan, Hong Kong, Singapore and Taiwan, have encountered a decline in the demand for the teaching workforce that has created oversupply, or surplus, of teachers. Concern over teacher surplus has also

spurred interest in related research. Regarding the important role of government control on teacher supply, Hendrick (2011) argued:

State control implied that the state would be compelled to respond, sometimes in contradictory — but always pragmatic — ways, to social, economic, and political developments that impacted on the supply and demand of teachers. (p. 26)

The work by Watanabe (2004) on Japan's teacher supply indicates the close association between the social context and the imbalance in teacher supply and demand, arguing that attractive working conditions (such as relatively higher salaries and social status) and limited employment opportunities other than teachers for women are possible reasons for the issue of teacher surplus. It is also widely believed that the oversupply of teachers resulting primarily from a demographic trend — decreasing student enrollments — is leading to extensive waiting lists of qualified teachers for their teaching job openings. In short, fertility rates will directly influence the demand for teachers. According to *World Population Prospects*, “the lowest fertility levels (below 1.3 children per woman) are currently observed in China, Hong Kong SAR and Macao SAR as well as Singapore and the Republic of Korea” (United Nations, 2011, p. 14). Watanabe (2004) remarks that “the declining student population, resulting from a very low birthrate, is a serious problem in Japan” (p. 233). The findings of T. H. Huang and Liu (2010) focusing on Hong Kong primary schools were consistent with the situations in Japan: declines were reported in the number of potential student population and the number of available teaching job vacancies. Such arguments have meant that because of a considerable drop in fertility rates, combined with government policies and the social context, fewer and fewer teachers will be required. Compared to those regions, Taiwan has reached historically unprecedented low fertility levels (even below 0.9 children per woman) — “the lowest of low fertility levels” (W. I. Lin & Yang, 2009) — resulting in remarkable reductions of school-age population.

Since the mid-1990s, the Taiwanese government has sought to create an open and expanded market in primary teaching by deregulating teacher training. However, the deregulation reform, together with rapidly declining fertility rates and the continued privileged status of the teaching profession, creates an unusual scenario of teacher surplus in both the teaching labor market and the teaching workplace. That is, in recent years, Taiwan is facing an unprecedented situation of surplus teaching workforce in primary schools. This has aroused considerable concerns and debates. Analyzing historical developments in teacher training and government policies, with their traditions, educational reform changes

and the Taiwanese social context, this article will cast light on a situation that may seem surprising for many scholars outside of the Asia-Pacific region.

It is important to understand why teacher supply and demand was not a problem in Taiwan in earlier years. In Shiu and Yang's (2004) account, the answer resides in the government policy of "planned balance" (p. 102). Prior to 1994, the Taiwanese government played the major role in estimating the number of teachers to be hired and in deciding the number of student teachers to be recruited. In addition, only teacher training institutions (formerly known as normal schools/colleges¹) facilitated teacher supply. Nonetheless, with a more open political climate as well as more urgent calls for educational reforms and the opening up of the teaching market, the *Teacher Education Act* (TEA) was introduced in 1994 to provide a legislative base for the diversification of the teacher training system. With the implementation of the TEA, the dominance of the normal school training system and its role as the exclusive legitimate teacher training institution for more than five decades became history (Y. H. Li, 2001). Meanwhile, educational reforms out of this policy change gave rise to an imbalance of supply and demand of the teaching workforce. J. Y. Li (2004), for example, argued that the reforms led to scarcity of job positions and competition in the teaching labor market. However, it is noteworthy that in Taiwan, the better remuneration and benefits package provided to teachers by the government not only ensures a higher status of teachers but also inspires young people of high academic ability to choose teaching as a career (Fwu & Wang, 2002a, 2002b; Kyriacou & Chien, 2004; Yang, 2007). In Ingersoll's (2003) view, "school staffing problems are rooted in the way ... the teaching occupation is treated" (p. 18). In other words, understanding the issue of teacher surplus in Taiwanese primary schools requires attention to, in addition to the reform of teacher training, its relationships with the specificity of social context in Taiwan.

This article aims to explore the causes and consequences of the imbalanced teacher supply and demand both in the teaching labor market and in the teaching workplace in Taiwan. Therefore, I will discuss three particular contextual perspectives respectively: the historical context, government policies, and the social context. The article will begin with describing the historical developments and the characteristics of primary teacher training to provide a context for the discussions to follow. It will be followed by an examination of government policies and the social context that cause teacher surpluses to emerge in the labor market. The excessive supply in the labor market cannot be discussed in isolation, however, because of its inextricable link with demand for teachers in primary schools. Therefore, the next section will move on to the issue of teacher surplus in the primary

teaching workplace, with a subsequent focus on Taiwanese policies for coping with the issue. The last section is the summary and conclusions.

In order to provide insight into the oversupply of newly qualified teachers and in-service teachers, this article makes use of data from government publications and reports, such as the *Education Yearbook* and the *Yearbook of Teacher Education Statistics*, and official statistical sources. In addition, I shall draw on the findings of local Taiwanese research examining the problems and influence of teacher surplus as well as findings from my ethnographic case study conducted in a Taiwanese primary school between 2008 and 2009. Data for my case study were collected from two main sources: non-participant observations and semi-structured interviews. Non-participant observations involved extensive shadowing of 6 class teachers (4 females and 2 males) and included the presence at a good variety of school-related activities including staff meetings and morning assemblies. Semi-structured in-depth interviews were conducted using open-ended questions during the last two weeks of the study. The interviews involved: the six class teachers shadowed, one male class teacher, one female subject teacher, and the male principal for a gender balance of the teachers. This situation of teacher surplus and the teachers' responses to it will be used to illustrate the imbalanced teacher supply and demand and its impact.

Historical Developments: The Changing System of Teacher Training in Taiwan

The system of primary teacher training in Taiwan falls into two distinct periods. Without outlining the earlier period when teacher training was dominated by those normal educational institutions, it is hard for readers to understand some aspects of the alterations after the enactment of the TEA in 1994. Regarding the second period, with particular reference to dramatic changes in training guidelines and training system after 1994, the teacher surplus phenomenon and its impacts on the labor market will be analyzed. These descriptions also help to better understand unique features of the Taiwanese social context of teacher training and to make comparisons between the two periods.

The Domination of Normal Education From the Mid-1940s to 1993

Despite the perceived importance of teachers, the system of teacher training was established quite late in Taiwan. Of many governmental initiatives, the first was the

expansion of normal education to meet the urgent need for teachers and the increased pupil enrollments over time (Shen, 2004). During the period from 1945 to 1957, nine normal schools with three-year programs were established as a unified and centralized system responsible for primary teacher training.

Stemming from a concern to produce teachers with better professional qualities and mature personalities, coupled with the profound influence of educational changes occurring in other countries, an extension of teacher training was implemented. Between 1963 and 1967, these nine normal schools were converted into five-year normal junior colleges. The junior colleges recruited students, with an average age of 15, graduating from junior secondary schools. The new form of training lasted five years, replacing the previous three-year training, before students took up their first teaching posts. Following this, the 1970s saw the remarkable growth in the number of students recruited (Shen, 2004).

In July 1987, a massive reform was conducted: these normal junior colleges were all upgraded into teacher colleges to recruit students, aged about 18, graduating from senior secondary schools. Students were required to take four-year courses including professional studies and training in school teaching. The reform created a new era of primary training in Taiwan, in that educational qualifications of primary teachers were upgraded to bachelor's degrees. Nonetheless, some criticisms showed that the monopolized status and functions that these teacher colleges enjoyed were being challenged (Y. H. Li, 2001). Central to the criticism was the function of the department of primary teaching as the most distinctive part of these initial training institutions. These were questioned because other departments also offered similar training courses. Furthermore, the courses related to general and educational studies, essential to teacher training, were also criticized as lacking strict demands in their implementation.

Yet throughout this period, several distinctive characteristics emerged and were maintained in the system of primary teacher training, and analyzing these characteristics is critical to identify and to contrast the differences between pre-TEA and post-TEA teacher training. The first characteristic was the unified and government-funded system. The initial training that primary school teachers received was provided exclusively by those normal institutions. These institutions, in spite of the transformations, have dominated the training and labor market of primary teaching in Taiwan for almost five decades. The second characteristic was the differentiation of primary and secondary initial training. The experiences of primary and secondary teaching are very different. The vast majority of primary school teachers are assigned to one class to take responsibility for the whole

curriculum, covering Chinese, mathematics, and social and natural sciences, and to stay with their class, caring for and guiding pupils' school lives and learning all day, in contrast to secondary teachers who concentrate on having the knowledge and skills required for one or two subjects.

Strict training for prospective teachers was also one of the characteristics of teacher training (Y. H. Li, 2001; Liang, 1986), reflecting the unique political situations and beliefs in Taiwan. As Shen (2004) comments, the institutions of normal education were set up as "sites of social reproduction" in which prospective teachers were educated under the control of government power and authority (p. 87). For example, instead of using such words as "educating" or "training," the use of "discipline" as the emphasis on rigorous regulations and supervision (Liang, 1986, p.46) pointed to the fact that normal students' lives, beliefs, learning and professional training imitated military training (Shen, 2004).

Furthermore, the policies of government funding played a crucial role in motivating and attracting students of high academic performance to the teaching profession. Abundant evidence confirms that the students were and still are recruited mostly from poorer families (J. Y. Li, 2004; Liang, 1986; Yang, 2007). This was because the government fund helped for advanced learning and future jobs for students, whether male or female. The government-funded system is also suggested as a critical incentive encouraging more women to enter the sector of primary teaching (S. W. Tsai, 2001; Yang, 2007).

In the 1980s, more qualified primary teachers were needed to meet a continuing rise in pupil enrollments and the changing educational policies, such as lowering pupil-teacher ratios and class sizes. However, the number of qualified teachers graduated from traditional training institutions did not meet the demand. While the shortage became urgent and serious, in 1989 an alternative route, the Post-graduate Teacher Training Scheme, was set up to attract non-traditional entrants with an interest in primary teaching to fill job vacancies. During the period of April 1989 to June 1994, seven rounds of training were carried out, five of which provided one-year intensive training courses, but two of which lasted just one semester. It was estimated that more than 11,000 trainees received their teacher qualifications through the scheme (Y. H. Li, 2001). The short length of training could be seen as an indication of the massive demand for qualified teachers. Interestingly, in terms of the gender composition of the teaching workforce, evidence also indicates the entry of more young women than men through this pattern of training (Y. C. Chang, 1990).

The Era of Diversification Since 1994 and the Oversupply in the Teaching Labor Market

As noted earlier, in the 1990s, significant reform was carried out as part of a wave of broader economic, political and social changes in Taiwan (Fwu & Wang, 2002a). With the economic boom in the 1980s, Taiwanese society has also gone through a political transition, reflecting a more democratic and diverse environment which fostered reforms in education. Along with the new political climate and urgent calls for more reforms to enhance the future competitiveness of Taiwan, there was growing consensus about renewing teacher training in the direction of decentralization, deregulation and diversification. When formulating educational policies for the changes, the most important reform of teacher training was the passing and implementation of the TEA in 1994. It can be seen as a milestone that the long saga of “authoritative” normal education was ended, and a new era in government policies and training structure for the teaching workforce was about to start. According to F. J. Li (2007), previously unified, monopolized, planned, government-funded training systems and teacher allocation were deregulated toward diversified provision, self-funding with small amounts of bursaries, reserve training and examinations for teacher’s certificates. Consequently, the character, supply and size of the reserve pool of qualified teachers had been altered.

There was further revision of the TEA in 2002. The 1994 and 2002 versions of the TEA differ in the time and length of school-based practice, the position of trainees as students,² the cancellation of benefits for practice allowance, students’ self-paying credit fees for practice, and the examinations for teacher qualification after practice (D. J. Chang & Li, 2003). The following discussions also provide insight into what the alterations are since the enactment of the TEA.

Government Policies and the Social Context

Along with the educational transformation and the new guidelines due to the enactment of the TEA, I will examine the issues of the oversupply of the teaching workforce in the primary teaching labor market and their interplay with government policies and the social context in Taiwan. These four important dimensions will be considered: the expansion of teacher training institutions, the diversification of training routes, the drop in fertility rates, and the scarcity of job vacancies for qualified teachers. Nonetheless, the changes in training

institutions and routes as well as fertility rates help explain the causes of teacher oversupply, and the scarcity of teaching jobs is examined here as the consequence of it. It is critical to note that in Taiwan, these issues are referred to as the issues of “stray teachers” (*liu lang chiao shih*), as distinct from the issues of “surplus teachers” (*chao e chiao shih*) occurring in the teaching workplace. We will explore it in the next section.

To begin with, the expansion of teacher training institutions not only is identified as an important contribution of democratic approaches of government policies, but also has enormously influenced the supply of the teaching workforce. Examining the contents of the 1994 TEA, Taiwanese researchers, such as Fwu (2000), indicate that diversification refers to the joining of various colleges and universities in the training system. It is seen as the most significant alteration in the history of the Taiwanese initial teacher training. In the 2002 revised version, the TEA identified three types of institution responsible for primary teacher training, including educational universities (former teacher colleges), the departments of teacher training/education in universities, and the centers of teacher training (F. J. Li, 2007). As Table 1 shows, departments of teacher training can be found in six educational universities and four general universities, whereas the number of the centers of teacher training set up by educational universities and general universities were seven and fourteen respectively (F. J. Li, 2007). Additionally, the Post-graduate Teacher Training Scheme was restarted in 1996 because of the substantial shortage of qualified teachers in primary schools (Y. H. Li, 2001). The difference was that in the 2004 academic year, five general universities started undertaking the postgraduate scheme traditionally carried out by the former teacher colleges.

Table 1: Number of Different Routes of Primary Teacher Training in the 2004 Academic Year

	Department of teacher training	Center of teacher training	Post-graduate teacher training scheme
Educational universities	6	7	9
General universities	4	14	5
Total	10	21	14

Source: F. J. Li (2007, pp. 227–231).

In comparison with the previous teacher supply entirely dominated by nine teacher colleges, this rapid expansion of training institutions partially explains the oversupply of the teaching workforce. The reality was that, between 2006 and 2007, eight teaching training centers were closed as some of them had difficulties in recruiting sufficient trainees (F. J. Li,

2007). The shrinking number of training institutions reflected not only the lack of willingness of prospective trainees to take training but also the rare teaching jobs available in the labor market (F. J. Li, 2007). Consequently, the shrink led to the transformation of training universities, as will be discussed below.

Secondly, the diversification of training routes also provides an account of the oversupply. Contrary to the “planned balance” of supply and demand of the primary teaching workforce before 1994, the massive growth in the number of trainees was encouraged by the TEA, together with the expansion of higher education out of policy encouragement (Shiu & Yang, 2004). According to government data, the total number of trainees was 3,007 in the 1995 academic year and increased gradually over time (Ministry of Education [MOE], 2010). The connection between the diversification of training routes and the changes in the number of trainees can be found in Table 2, which shows the numerical changes about trainees in the three different routes. During the period between 2001 and 2004, the total figures of trainees remained stable, with approximately 8,000 trainees annually. Yet, since the mid-2000s, the number has dropped considerably from 5,125 in 2005 to 2,981 in 2007. More surprisingly, the data of recent years indicate the widening gaps between the number of recruited trainees and that of trainees undergoing training (MOE, 2009). All these illustrate that fewer and fewer trainees were entering teacher training programs.

Table 2: Number of Trainees in Different Routes for Primary Teacher Training by Academic Year

Academic year	Department of teacher training/education	Center of teacher training	Post-graduate teacher training scheme	Total
2001	4,185	1,195	2,305	7,685
2002	4,054	1,395	2,685	8,134
2003	3,998	1,395	2,780	8,173
2004	4,524	1,395	2,240	8,159
2005	3,865	1,260	45	5,170
2006	2,687	1,494	0	4,181
2007	1,537	1,444	0	2,981

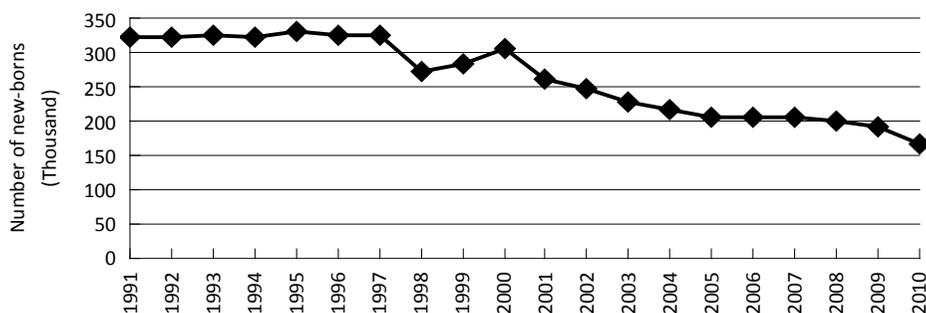
Source: F. J. Li (2007, p. 232); MOE (2005, p. 209).

Concerning the differences in the number of trainees in these three routes, in the 2001 academic year, for example, more than half of trainees (4,185 out of 7,685) received their training provided by teacher training departments, whereas those trained by either centers of teacher training or the Post-graduate Teacher Training Scheme were 1,195 and 2,305. In 2007, the number of trainees trained by teacher training departments dropped a lot and was

almost equivalent to that of trainees by training centers. The falling tendency also signified the difficulties of educational universities and their transformation into general universities.

Thirdly, the dramatic decline in birth rates led to the imbalance in supply and demand for primary school teachers; that is, the reduction in demand. Figure 1 depicts the trend in fertility rates over the 1991–2010 periods (Department of Statistics, Ministry of the Interior, 2010). The statistical figures tell us that in the first half of the 1990s, the fertility rates remained constant with more than 320,000 babies born annually. The 2000s, however, saw a continuous and remarkable drop in the number of births — in 2001 the number was 260,354 and has subsequently declined to 166,886 babies born in 2010. The number was nearly half of the numbers in the 1990s. In the recent decade, it is shown that the crude birth rate in Taiwan dropped obviously from a high of 1.38% in 2000 to 0.85% in 2011 (even a lower rate of 0.72% in 2010), compared with 0.9% in Singapore and 0.8% in Japan in 2011 (Directorate-General of Budget, Accounting and Statistics, 2012, pp. 14–15, 150–151). Examining the total fertility rate (TFR) also provides us with a clearer picture of plummeting levels of birth. The TFR was by 2010 below 0.9 children per woman on average instead of 4.00 children forty years ago (H. M. Chen, Chen, Hsiao, Chen, & Chang, 2012). What is striking is that among countries and areas with the lowest low fertility levels, the fastest fertility reductions occurred in Taiwan, and that the estimates of fertility projection report a continued decrease within the future 50 years as a result of the falling numbers of women of reproductive ages (Council for Economic Planning and Development, 2008). More importantly, the phenomenon of rapidly declining fertility rates, known as “children-reducing” (*shao tzu hua*), has been considered the most crucial cause contributing to unemployment of qualified teachers (termed as “stray teachers”). The high unemployment rates have caused widespread concerns and debates in Taiwanese society.

Figure 1: Fertility rates in Taiwan ROC, 1991–2010



Source: Department of Statistics, Ministry of the Interior (2010).

Fourthly, the consequence of teacher oversupply is the scarcity of job vacancies. As we can see, not only do the changes in teacher training accompanied by the TEA lie in such structural changes as the rapid expansion of training institutions and the diversification of training routes, but also in the way teacher training is carried out and its close link with the scarcity of newly employed teachers. As outlined earlier, before the 1994 reform all the normal college students, as the privileged group, would have guaranteed teaching jobs after they finished training. Since 1994, there were no guarantee jobs available. In other words, it has been essential that the students, after getting their teacher status, take the examinations of teacher selection held by different local governments for employment. As J. Y. Li (2004) warns, current normal students need to be aware of the competition and scarcity of job opportunities available to them. In contrast to previous guaranteed job placements, the proportion of normal students employed in 2002, for instance, was merely 33% (J. Y. Li, 2004). The employment rate of teachers trained by the Post-graduate Teacher Training Scheme also bore a similar situation. In 2002 there was only 32% getting employed (Y. C. Chang, 1990), compared to 76.23% in 1989 (J. Y. Li, 2004).

Accompanying the excessive teacher supply were some changes in policies — the post-graduate scheme was abolished after 2005, with the intention of overall decrease in the number of trainees. As already noted, the purpose of the scheme was to meet the urgent and massive need for teachers, with open opportunities provided for undergraduates who wanted to teach. In a sense, as Wang and Chiu (2002) argue, the scheme, as a result of diversifying primary teacher training in Taiwan, made the entrance to the teaching job market more competitive and hard. Again, the abolition points to similar situations — the oversupply of newly qualified teachers and the worsening situations of teacher employment.

For newly qualified teachers, it seems more and more difficult to find teaching jobs. Table 3 records the number and proportion of employed qualified teachers between 2006 and 2008. Negligible percentages (0.66%, 1.88% and 1.62%) represent the disproportionately few teachers getting employed. It is projected that the low supply of teaching jobs is likely to continue due to no available vacancies. It was reported that some local governments have cancelled the examinations of teacher selection, such as in 2007 in Kaohsiung County (C. H. Tsai, 2007) and in 2008 in Hualien County (Hua, 2008), and more may follow suit.

Several points are important in further discussions of the relations of teacher oversupply with government policies or with the Taiwanese social context. Firstly, close examination of government policies seem to reveal their shortage of long-term

Table 3: Number and Percentages of Newly Employed Public Primary School Teachers by Academic Year

Academic year	Total number of qualified teachers taking teacher selection examinations	Qualified teachers passing teacher selection examinations	
		Number	Percentages
2006			
Female	28,512	183	0.64
Male	6,734	50	0.74
Missing*	18	0	0.00
<i>Total</i>	<i>35,264</i>	<i>233</i>	<i>0.66</i>
2007			
Female	24,365	453	1.86
Male	5,022	100	1.99
Missing*	84	0	0.00
<i>Total</i>	<i>29,471</i>	<i>553</i>	<i>1.88</i>
2008			
Female	24,422	387	1.58
Male	4,733	85	1.80
<i>Total</i>	<i>29,155</i>	<i>472</i>	<i>1.62</i>

* Data missing or gender unknown

Source: MOE (2006, pp. 187, 190; 2007, pp. 233, 241; 2008, pp. 251, 259).

considerations and plans. The transformation of educational universities and the withdrawal of government funding are two illustrations. Since the enactment of the TEA adopting the approach of decentralization and deregulation, the figures provided by the MOE (2010) show that the number of so-called government-funded students changed dramatically: a sizeable number of students (1,960 in 1998 and 1,628 in 1999) receiving financial grants from the Taiwanese government, with a remarkable drop after 2002. Very few students who are of indigenous background, from off-island areas or who major in specific subjects are rewarded with government funding. In 2007, for example, only nine students studying in educational universities received government grants and bursaries (F. J. Li, 2007). For the substantial amount of post-TEA trainees, the source of financial support comes from family instead of the Taiwan government. In addition to no guaranteed employment for their students as mentioned, without the advantages of government funding for students, educational universities have been facing difficulties and have to transform themselves. F. J. Li (2007) also remarks that the transformation of these universities partially resulted from the oversupply of the teaching workforce and the declining teaching job vacancies, causing difficulties for them to recruit enough students or students of good quality. In fact,

in 2000, 2003 and 2004, Chiayi, Taichung and Tainan teacher colleges, by integrating with other colleges or universities, were transformed as comprehensive universities. Evidence also suggests that financial incentives have played an essential role in motivating the substantial entry of women as they are more likely to lack family economic support (L. H. Chen, 1994; Yang, 2007) and there are limited job options for them in the labor market (H. J. Li, 2011; S. W. Tsai, 2001). It is worth examining further whether the withdrawal of government funding will lead to changes in female dominance in the primary teaching profession because of fewer incentives to attract women into teaching. Future research on the shifts of gender composition of primary school teachers is therefore suggested.

The cancellation of monthly practice allowance of NT\$8,000 exemplifies the failure that the government and the educational authority are unable to anticipate, from a long-term perspective, the changes of the teaching profession as an open employment market. The cancellation, as one of the differences between the 1994 and 2002 versions of the TEA, intended to alleviate the Taiwanese financial burden, and thus trainees have to pay their own practice fees. In addition to the failure in anticipating the long-term trend, this also resonates with the view highlighting the budget deficit of the Taiwanese government (Hsiao, Peng, & Lee, 2009). Accompanied that is the lack of appropriate education budget from the government to meet the need of employing sufficient new teachers.

To place more attention to the social contexts of Taiwan so as to gain a broader understanding of the demand-supply disequilibrium for teachers, the second point here is that the evidence seems to support the feminization of primary teaching (H. J. Li, 2011). According to Table 3, more qualified female than males teachers were employed, constituting around four-fifths, although the employment percentages of male qualified teachers (0.74%, 1.99% and 1.80%) seemed a little higher compared to that of females. The tendency of more female teachers employed echoes the findings suggesting the persistence of female dominance in the primary teaching profession (Yang, 2007). Nonetheless, only one out of four or five qualified teachers taking examinations of teacher selection was male. It might reflect the argument that men seem to be of less interest in primary teaching because of their gender and stereotypes regarding teaching as female-appropriate work (L. H. Chen, 1994; Yang, 2007). Whereas the emphasis of British and American research is on the recruitment of more male teachers into primary schools (Cushman, 2005; King, 1998; Sargent, 2000; Simpson, 2004; Smedley, 2007), gender balance of teacher composition was not considered as high priorities in Taiwanese policies and educational reforms. At least this seems to be the case now, as seen in the number of teachers recently employed.

Thirdly, given advantages such as guaranteed employment and government funding being no longer available, an interesting and crucial question is apparent: why are people still attracted to teacher training? As Dolton (2006) notes, having observed the trends in the U.K. and from the literature concerning teacher supply, teachers' pay is "of prime important, since it is relevant to consider how graduates make choices between becoming a teacher and taking up another occupation." Watanabe's (2004, p. 233) study exploring teacher surpluses in Japan suggests that "public school teachers are civil servants with job security and relatively high salaries" and "public respect for the teaching profession, which enjoys high social status" has motivated university graduates to become teachers. Taiwanese researchers point out that relatively "handsome remuneration and benefits packages" for teachers, such as full salary in winter and summer vacations, annual bonus of 1.5-month salary, pension after retirement, less competitive work environment, job security and high social status, are the answers to attract young people into the primary teaching profession (Fwu & Wang, 2002b; H. J. Li, 2011; H. H. Wang, 2004).

The surprisingly high rates of unemployed qualified teachers also prompt us to make further inquiries. As noted, unlike normal students of pre-TEA era who were trained for teaching only, the majority of the trainees of post-TEA era are from diverse academic fields and take teacher training as their minors. Do these qualified teachers seek other employment? Their answers also reflect the attraction of the teaching jobs in Taiwan. The 2003 survey conducted by the Pan Asia Human Resources Bank reports that 33.11% of qualified teachers replied that they would never give up the hope of finding a teaching job, whereas below 20% of respondents told that they would only spend 1 or 2 years taking the examinations for teacher selection. When asked their plan if they failed in the examinations, merely 5.67% of qualified teachers responded that they would never take examinations again and try to find a job in other employment sectors, and 6.19% reported their lack of future plans (Shiu & Yang, 2004). In other words, the vast majority of respondents would be persistent in finding a teaching post. It was also found that most qualified teachers, particularly those graduating from educational universities, still cling to finding a job relevant to teaching and academic fields, despite the indication of rising number of qualified teachers thinking about getting employed in other professions (104 Human Resources Bank, 2004). Resonant with the above argument, the attraction of and favor in primary teaching jobs can also be found in the evidence.

It is worth noting that some ideas linked with teaching jobs seem not to change with educational reforms over time. The diversification of teacher training was a response

to reforms to create a more open and competitive employment market in teaching and to replace the government-dominated approach. As Fwu (2000) highlights, following liberalization in education, a free market is in effect in Taiwanese education. The competition for employment in teaching, like that in other occupations, is unavoidable. Beneath the deep concerns about the high unemployment rates of qualified teachers is the prevalence of the long-standing preconception in Taiwan about “natural” equilibrium between getting trained and getting employed, just like those former normal students did. The fact that teacher training and the labor market has been opened up and deregulated from government control seem to be overlooked.

The Surplus of Teachers in Primary Schools

After the 1994 reforms, an era of teacher surplus commenced not only within the teaching labor market but also within the teaching workplace. To provide a fuller understanding of the high rates of unemployment of qualified teachers, this article shifts its focus to the surplus of teachers in the workplace. The term “surplus teachers” refers to those who are teaching in primary schools and whose labor has become surplus to what is needed. It is important to note that in the Taiwanese context, employed public primary school teachers are positioned as civil servants with legal work rights and status. The dismissal of teachers is a quite rare phenomenon, except in the case of breaking the law (H. H. Wang & Fwu, 2002); there have been no cases of teachers being made redundant or laid off in Taiwan.

To analyze the issue of teacher surplus in primary schools and its consequences, the examination here includes the considerable decline in pupil enrollments, the low turnover rates of teachers, and the prevalence of young teachers among the overall teaching body.

The number of teachers will be affected directly by the number of pupil population. Owing to the decline in fertility rates in Taiwan noted above, it is not surprising to find that the official indicator of the shrinking demand for teachers is the falling number of pupils entering primary schools. As can be seen in Table 4, pupil enrollments saw a drop from 2006 to 2013. Throughout the last half of the 2000s, official estimates say that there was a decline of about 60,000 new pupil enrollments, from 291,267 in 2006 to 230,495 in 2009, and it is likely to be followed by a continuous drop. By 2013 it is projected that there will be only 199,825 new primary pupils. Undoubtedly, this has brought significant impacts on the hiring of teachers, school management, and particularly, the lessening of class numbers and the need for new teachers, as commented on by F. J. Li (2007).

Table 4: Statistical Estimation of New Pupil Enrollments in Primary Schools, 2006–2013

Academic Year	2006	2007	2008	2009	2010	2011	2012	2013
Number of pupil enrollments	291,267	281,304	247,400	230,495	215,683	209,622	202,501	199,825

Source: Department of Statistics, Ministry of the Interior (2010); F. J. Li (2007, p. 262).

More evidence illustrates the teacher surplus in primary schools. The 2004 *Education Yearbook of the Republic of China* identifies specifically that within five years, around 4,287 primary school classes, as a conservative estimation, will be cut in the country (D. J. Chang & Li, 2004). In the longer term, the estimates from the MOE point to a further reduction in the number of classes. From 2007 to 2013, the total number of primary school classes will decrease from 61,189 to 48,762 classes, a decline of nearly 20.31%. As a result, it is estimated that by 2016, there will be a need to reduce the number of primary school teachers by 33.43%, approximately 33,579 teachers. What is worse, there may be an oversupply of 36,210 teachers, constituting 36.05% of the entire teaching workforce by 2019 (D. J. Chang & Li, 2005, p. 258).

Additionally, the turnover rates are inextricably linked with the demand for teachers. Table 5 presents the number of retired public school teachers. It has been confirmed that in 2004 the policies aiming at increasing funding to assist local governments with the issues of teacher pensions offered an incentive that prompted the retirement trend of senior teachers who were replaced typically by younger teachers (MOE, 2005). As revealed in the official educational reports (MOE, 2006), over 6,800 teachers left teaching in 2001, and the figures climbed sharply to 9,033 in 2004. Nevertheless, there was a considerable decline in the following years. By 2006, a total of 3,964 public school teachers, fewer than half of the number in 2004, chose to retire. In short, the declining turnover rates do not help in tackling the seriousness of the problem of teacher surplus either in schools or in the labor market. On the other hand, the decreased number of teacher retirement revealed the government's financial restraint. This also echoes my previous argument that government policies seem to fail to anticipate the tendency. Moreover, the government is making new rules relevant to

Table 5: Number of Teacher Retirements in Public Schools by Academic Year

Academic Year	2001	2002	2003	2004	2005	2006
Number of retirement	6,870	7,570	7,320	9,033	5,522	3,964

Source: MOE (2006, p. 281).

retirement recently, and it is hard to estimate the impacts on turnover rates in the foreseeable future.

In relation to teacher turnover, it is critical to take teachers' ages into account. Darling-Hammond and Sclan (1996) claim that, apart from gender, age is suggested to be the strongest measurable determinant of teacher attrition. Older teachers are very likely to leave for retirement, while young teachers that leave are generally reacting to the work conditions of teaching or the availability of alternative job options. The 2007 *Yearbook of Teacher Education Statistics* reports that currently the average age of primary teachers is 38.56 years (MOE, 2007). By comparison, this average age is even younger than those of nursery (38.74 years) and secondary junior teachers (39.58 years). The data from state statistics also shows that teachers teaching less than 10 years constitute 44.47% of the teaching workforce, compared to those with the seniority of over 20 years constituting 19.28%. In conjunction with the dramatic decline in the pupil population, it is suggested that the prevalence of young teachers among the overall teaching body may indicate the worsening situation of the teacher surplus issues in primary schools and more difficulties for graduates to enter the teaching profession (H. F. Lin, Tong, & Chen, 2008).

Broadly speaking, concerns about the surplus of teachers are nationwide in Taiwan. Despite the pervasive decrease of pupil enrollments nationwide, however, the situation of teacher oversupply does differ in various regions and in urban areas. For example, in 2009 Tainan County had 30 surplus teachers (W. H. Huang, 2009), while in the more urbanized Taichung, there were 153 (“少子化減班,” 2009). During the same year, Ping-tung County, an agricultural county where my study was conducted, had 193 primary schools, and it was estimated that there were nearly 100 surplus teachers (Lo, 2009). Although Hendrick's (2011) study points out that the oversupply might help enhance the quality of new teachers, what has provoked criticism in Taiwan is that in order to prevent the surplus of teachers in schools in the foreseeable future, some schools chose to hire substitute or part-time teachers instead of permanent teaching staff. The substitution has raised concerns about affecting teaching quality and pupils' learning (C. H. Chang, 2006) and school administration (C. H. Lin, 2010). There is no doubt that the surplus of current teachers compounded the oversupply of the teaching workforce in the labor market.

The primary school in Taiwan where my ethnographic research was conducted between 2008 and 2009 offers a concrete example of teacher surplus issues and their serious impacts on teachers and the teaching workplace. In the 2008 academic year, four surplus teachers left this school due to reduced class numbers and were deployed to teach in other schools. In

the 2009 academic year, the school, consisting of 27 classes, encountered a continuing drop in pupil enrollments. During my research period, there were rumors that no job vacancies were available in the county because of similar teacher surplus problems elsewhere. Even the worst, redundancy was talked about. Having a consensus of the need of more new pupils to decrease the number of surplus teachers, the entire teaching staff got involved in a campaign to recruit new pupils after school hours and on weekends, for no rewards. In fact, it was an unprecedented experience for the teachers. Despite collective efforts of the teachers to recruit more pupils, the number of classes still had dropped to 24. According to the official regulations, among 40 qualified teachers, four teachers had no option but to leave this school to reduce the excess number of teaching staff. Nonetheless, some disagreement resulting from the explanations of official guidelines of dealing with surplus teachers has triggered serious conflicts between the school teachers and the principal within this school. Regarding their disagreement, some teachers expressed strongly that teachers with more seniority (years of teaching) in the school could decide who was surplus, and the opinions of these teachers were undervalued and ignored by the principal who insisted on enacting the new guidelines. Under such circumstances, the teaching staff fought against the principal's authority, to maintain their rights and ideals of fairness and justice. Echoing the study evidence (e.g., Hung, 2011) indicating that the stress related to teacher surplus that teachers experience is derived from reform of government educational policies, the case of the school studied also reflected the failure of government policies in tackling teacher surplus problem because of policy ambiguity.

What Are Policy Responses?

Having discussed the teacher oversupply both in the primary teaching labor market and in the workplace, focus will now be drawn to policy responses to teacher surplus. As argued, the oversupply was influenced not only by policy changes but also by social contexts. Regarding this, the government concerns about the continuous decline of the populations and their ensuing impacts. Yet remaining single, delayed marriage, remaining childless or postponed childbearing are identified as the mainstream notions embraced by young generations. According to the official survey investigating fertility policy, the results report that personal economic and financial capacity was ranked as the most important factor (43.7% of men and 29.0% of women) causing delayed marriage (H. M. Chen et al., 2012), which "will remain the gatekeeper into the possibility of childbearing" (Frejka, Jones, &

Sardon, 2010, p. 596). As suggested, part of delayed marriage and falling fertility may be a direct response to the rapid economic growth in Taiwan, as in other East Asian countries. This has been paralleled by remarkable increases in women's education, with the trends of more women working full-time (Frejka et al., 2010). As Bradley (1999) notes in British society that dual-earning is becoming the norm, in Taiwan dual-earner households have also increased substantially. Nonetheless, "the trends in marriage and fertility are also influenced by unequal gender relations" (Frejka et al., 2010, p. 597) as women might be expected to take major share of domestic and child-care responsibilities, despite obvious increase in men's contribution to household chores. Frejka et al. (2010) also stress that the fertility trends "will not be reversed unless forceful and innovative policies are implemented" (p. 579). In this respect, the Taiwanese government introduces the measures aiming at encouraging young people to get married and supporting their childbearing. To support parents to make family responsibilities compatible with work, the government policies consist primarily of financial and material incentives, such as paid maternity leave, child care leave and benefits, a subsidy system of child care, coupons for early childhood education, increase in child care facilities (W. I. Lin & Yang, 2009), child care allowances for low-income families, lower taxes for households with young children, and support for mother's re-entry to the labor market. The good news is that fertility rates have increased to 1.065 in 2011 and 1.265 in 2012 (Ministry of the Interior, 2013).

To cope with the issues related to pupil reduction, teacher surplus and idle school facilities, the Hong Kong government has adopted such coping strategies as reducing classes, schools and teacher trainees, recruiting pupils out of Hong Kong, and retirement plans for an earlier age (T. H. Huang & Liu, 2010). Owing to mounting debates and worsening situations accompanied with the reforms in moving from a unified and planned system to a diversified one, in Taiwan, the MOE is at the forefront of making efforts to solve issues concerned with teacher oversupply, and hence to adopt a package of measures involving class size reduction in primary schools, closure or merger of some schools, and lowering the pupil-teacher ratio. For example, based on the principle of aiming to make education more "sophisticated," the MOE initiated a five-year plan. According to the contents announced by the Minister of Elementary Education on 1 December 2007, the average primary class size will be reduced from 35 to 32 pupils, with a further reduction of one pupil every year. The class size would reduce to 29 pupils by 2011. Together with the retirement and attrition of teaching staff, it is anticipated that the measures not only counterbalance the exceeding number of current teachers, but also will benefit approximately 300 unemployed qualified

teachers each year to find jobs in teaching. Most importantly, these measures are also regarded as a stimulus acting to improve the efficiency, quality and thus competitiveness of the primary teaching workforce. In addition, the Department of Personnel of the MOE has proposed a new measure — teachers who have taught for 20 years and who are 50 years of age with the seniority of 10 years will be qualified to retire. This will help to increase the numbers of teachers to retire, with approximately 3,000 to 5,000 every year (Hsueh, 2009). The MOE also expresses that they will superintend the ways how local governments carry out the projects of reducing class size, control the numbers of teachers and job vacancies and deal with surplus teachers, with the emphasis on providing stable work environments for current teachers, who thus need not worry about being made redundant or laid off (Department of Elementary Education, MOE, 2009). Although the increase of teachers with specific expertise is criticized as a short-term project, the MOE argues that adjusting the teacher composition not only helps to cope with the issue of lack of teachers in specific areas, such as English, humanities and art, but also helps to solve the oversupply of teaching workforce in the labor market and in schools (Weng, 2010).

Conclusions

By exploring the changes of primary teacher training, this article has examined the causes and consequence of the issues surrounding the imbalance of supply and demand of the teaching workforce in the primary teaching labor market and in the workplace. Although teacher surplus is not a universal issue, some Asian areas have encountered this. To fully understand the imbalance of teacher demand and supply in Taiwan, it has been examined through historical developments, government policies and the social context in relation to teacher training. With the implementation of the TEA, the domination of the normal training system and the “exclusively legitimate” status of training institutions became history. In this article, I have argued that the decentralization, deregulation or diversification of reform approaches, including the expansion of training institutions and the diversification of training routes, offered more opportunities for teacher training. However, the remarkable drop of fertility rates and the increased numbers of trainees and qualified teachers produced as a consequence of the decentralization and diversification policies led to the oversupply of the teaching workforce in the labor market. In contrast to normal students of the pre-TEA era with guaranteed teaching jobs and government funding, the scarcity of job opportunities available for qualified teachers in the post-TEA era is also analyzed.

This article has also discussed teacher surplus in the teaching workplace. As suggested, three factors have been particularly critical in shaping the phenomenon of teacher surplus. The dramatic decline in pupil enrollments is seen as the most direct and striking problem affecting the demand for teachers in primary schools. In addition, low teacher turnover rates and the prevalence of young teachers among the overall teaching sector are found. In the long term, having the total composition of the teaching workforce being comparatively young also means that the turnover rates in the coming years are plunging (H. F. Lin et al., 2008). Even current teachers were worrying about being made redundant or laid off in the near future. Importantly, these all indicate the probable persistence of teacher surplus in the teaching workplace, and the surplus of current teachers also creates difficulties for newly qualified teachers in finding teaching jobs.

Furthermore, government policies are short of long-term plans. For example, with the enactment of the TEA, not only did normal training institutions lose their dominant role in teacher training, they have also been encountering difficulties in recruiting enough students or good-quality students, such that some of them were transformed into comprehensive universities. Whether or not the transformation is in favor of these universities, it reveals that the government hardly anticipates the alterations. The implications of the social context favorable to the teaching profession are also noted. Studies point out that more female qualified teachers were employed than male teachers, suggesting the persistence of women's dominance in the primary teaching workplace. The picture is even more imbalanced when the number of newly employed female teachers is considered, echoing the idea that "for men, teaching was socially defined as a stepping stone, prior to their 'real' career" in some male-dominated professions (Ingersoll, 2003, p. 18). As a result of changes in the system of government funding, however, a lack of financial incentives may influence the gender composition in the future teaching workplace. The attraction of the teaching profession can also be found. Despite fewer teaching vacancies and jobs accompanied by significant alterations after the enactment of the TEA, within Taiwanese society, primary teaching is still positioned as a good job, such that becoming a primary teacher seems to be more attractive than what the government and educational authority have anticipated.

This article hopes to serve as a stepping stone for further inquiries related to the oversupply of the teaching workforce and its far-reaching influences. This study, however, is not without limitations. Ingersoll (2003) notes that "an overall surplus of newly trained teachers does not, of course, mean there are sufficient numbers of graduates produced in each field" (p. 8). In Taiwan, what is less clear is whether there is a potential shortage of

teachers in given subject areas such as music, or the extent of the waste of training if qualified teachers are not able to have employment in teaching (Shiu & Yang, 2004). Future research might engage further with the effectiveness between government policies and educational measures. As Menter and Hulme (2012) remind us, economic crisis is likely to exacerbate the “wicked” issues for an appropriate supply of high-quality teachers (Donaldson, 2011, p. 18). The worries about financial cuts that education was being squeezed in national budgets need more discussions. Further research is also needed to develop a more complete understanding of the future of normal training institutions, as the data suggest that they are losing their advantages. In sum, the context of government educational policies, teachers and teaching is continually changing in Taiwan, and the issue of teacher oversupply existing in both the labor market and the workplace has contributed to perennial challenges for the government, the educational institutions, teachers and the teaching workplace and profession.

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Notes

1. In Taiwan, teacher training is referred to as “normal education.” Wei (1974) explains that the usage and meaning of “normal school” were replicated from the French “*École normale*,” the latter of which originates from the Latin “*norma*” (p. 5). When applied in educational fields, “*norma*” represents normal education.
2. Although trainees have been regarded as students since 2003, I will use the term “trainee” throughout this chapter to avoid confusion.

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台灣的超額教師：原因與後果

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摘要

本文藉由分析台灣師資培育的歷史發展、教育政策變革與社會情境脈絡的關係，探究國小師資供過於求的原因與後果。本文參照官方出版物、報告與統計資料，並運用文獻資料與個案研究，分析台灣因師資培育政策鬆綁、1994年實施《教師法》後，師資培育機構增加、培育管道多元化，卻因出生率急遽下降（少子化），教師職位嚴重不足，造成教育市場師資供應過剩（這些教師稱為流浪教師）。此外，研究結果指出，台灣小學職場出現超額教師，導因於入學新生數逐年下降、教師退休率低，以及教師當中以年輕教師佔大多數。

關鍵字：小學教育；超額教師；台灣師資培育