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The Growth of Chinese Professionals: A New Middle Class in the Making^{*}

A book chapter in the *Handbook of Class and Social Stratification in China* edited by Yingjie Guo and to be published by Edward Elgar in 2014

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Abstract

This chapter describes the growth of professional workers in the context of the expanding higher education system and the improving economic structure in China, especially since the late 1990s. Based on the analyses of data from the census/mini-census supplemented by the 2010 Chinese General Social Survey, the chapter illustrates the demographic profiles, socioeconomic positions, and political orientations and participation of Chinese professionals and compares them with managers, as the two groups form a major part of the emerging new middle classes in China.

The Growth of Chinese Professionals: A New Middle Class in the Making

Zhuoni Zhang and Xiaogang Wu

Introduction

The term “professional” describes the standards of education and training that prepare members of the profession with the particular knowledge and skills necessary to perform the associated role. In a narrow sense, certain occupations with expertise such as carpenters, electricians, masons, painters, and plumbers, which require the completion of an apprenticeship, are generally regarded as trades or crafts, but not professions. In the field of social stratification, the term “professional” refers to a particular social stratum/class of well-educated workers who are commonly engaged in creative and intellectually challenging work with considerable autonomy. The professionals constitute an important part of the new middle classes emerging since World War II in North America and Western Europe (Burnham 1941; Galbraith 1968; Chen and Goodman 2013), alongside the expanding higher education systems in these two regions and their transformation into service-oriented economies (Archer and Blau 1993; Mills 1956). The professionals, together with managers, play an important role in the society by serving public interest. They have thus exerted significant impact on social and political changes in the post-industrial era.

The growth of professionals under socialism had been limited for a long time, not only because the redistributive economy was built mainly upon heavy industries and manufacturing workers were seen as the backbone of the regime, but also because higher education was still underdeveloped in post-war Eastern Europe, the former Soviet Union and China. As a result, professionals constitute an important part of the socialist elites whose power and status were allocated based on both professional competence and political loyalty after the socialist regime

reached maturity (Szelenyi 1978; Shirk 1984). Professionals enjoyed little autonomy but rather tended to be integrated into the state bureaucratic system, despite the existence of relatively distinct career paths for administrative and professional elites in China (Walder 1995; Walder, Li and Treiman 2000). Indeed, in a broad sense, cadres (*guojiaguanbu*) as a status group designated by the state (about 20 percent of the urban labor force) consisted of both managerial and professional staff, who were offered better compensation packages and more career opportunities than laborers/workers (*gongren*) (Bian 1994, 2002; Wu 2001). Hence, professionals, together with administrative/managerial staff, were fundamentally dependent upon the Communist party-state (Davis 2000; Wu 2011) and the role they played in social and political changes remains to be examined.

In the course of rapid social and economic transformations over the past three decades since 1978, China has witnessed accelerating differentiation and emerging new social groups with distinct interests. These new social groups interacted and competed with existing groups, reshaping social order and power relations in the country (Wu and Cheng 2013). Among the rising new social forces, the new middle classes—often referred to as “the new social strata” (*xinshenhuijiēceng*) in Chinese—have been attracting the attention of both scholars and policy makers since the 1990s (Chen and Goodman 2013; Goodman 1999). According to the official definition, the new social strata are comprised of professionals and managers who work in privately owned high-tech firms and foreign-invested companies, the self-employed and private business owners, and others who are employed in non-public sectors. Many of them have received higher education and earn a higher income (Ye and Ji 2007).

Growing out of the economic reform and prospering in the market competitions, members of the new middle classes are more aware of their civil and property rights and also

have more viable means (both cultural and economic) to protect themselves. The rise of these middle classes is presumably seen as an integral part of a complex historical process: the development of the market economy, the emergence of a civil society, the promotion of democracy, the introduction of the rule of laws, among others (Peerenboom 2002; Trubek 1972). Scholars have paid much attention to the differences between the new middle classes and other social groups in terms of their identities, behavior, political attitudes, and social values (Cai 2005; Chen 2003; Dickson 2003; Johnston 2004).

Empirical studies have found that most members of the new Chinese middle classes are indifferent toward political liberalization (Chen 2013), and they appear to be no different from other groups in their choice of means for resolving disputes (Wu and Cheng 2013), suggesting that emerging new social strata do not pose a threat to the regime. These findings, however, should be construed cautiously, because the groups classified as “the new social strata”, including private enterprise owners, the self-employed, managers and professionals working in the private sector, are heterogeneous in terms of their social origins, educational backgrounds, access to economic capital and cultural resources, and the extent to which they are politically dependent upon the state.

In this chapter, we present analyses of Chinese professionals and compare them with managers. Based on the data from a series of censuses in 1982, 1990, 2000, 2010 and the mini-census in 2005, we document the changing composition of Chinese professionals and describe the demographic and socioeconomic profiles of professionals relative to managers. We also analyze the data from the 2010 Chinese General Social Survey to examine their political orientations, including attitude towards democracy and political participation. We conclude with

the implications of the education expansion and the rising number of professionals for future social and political changes in China.

The Expansion of Higher Education and the Rise of Professionals in China, 1982-2010

Over the past three decades, the Chinese economy has undergone a fundamental transformation, first into a manufacturing-dominated economy and then further into a service-oriented one. The share of GDP output attributed to the tertiary sector increased from 17.3 percent in 1990 to 45 percent in 2012 (National Bureau of Statistics 2013). As the sustained economic growth demanded more skilled and educated labor forces, the Chinese government set the targets of universalizing primary education by the end of the 1980s and implementing nine-year compulsory education in the 1990s (Tsui 1997). These targets were largely met by the mid-1990s following an increase in educational investment (Wu and Zhang 2010).

Beyond the compulsory education, the government decided to expand higher education in 1999 before senior high school education enrollments grew substantially, partly as a policy response to the Asian financial crisis in 1998 to postpone the employment of high school graduates and alleviate the pressure on the labor market (Li 2003). The expansion of higher education was also an effective means to boost domestic consumption (Wan 2006), as Chinese families would be more willing and able to pay for their children's education than before when the generation born under one-child policy (i.e. those born after 1979) was about to enter college (Murphy 2004). Consequently, as shown in Figure 1, both admissions and graduations of college students have grown exponentially since the later 1990s (Wang 2014). From 1990 to 1998, for instance, the number of tertiary institutions, including both non-degree colleges (*dazhuan*) and

universities (*daxue*), remained at roughly about 1,000 units, but increased sharply from 1,022 units in 1998 to 2,358 units in 2010. Admissions grew even more dramatically, jumping from 1.55 million in 1998 to 6.62 million in 2010—an increase of more than 5 times within 12 years (National Bureau of Statistics 2013). The college graduates have boomed in numbers subsequently. The number of tertiary school graduates in a year did not reach 1 million until 2001, but surged from 1.03 million in 2001 to 5.75 million in 2010.

[Figure 1 about Here]

Notwithstanding the unemployment issues of college graduates in recent years, the unprecedented expansion of higher education has provided a huge supply of more educated workforces and a significant impetus for the growth of Chinese professionals. In China's population censuses in 1982 and 1990, professionals were defined as the staff for various kinds of scientific and technical work. They included scientific researchers (two-digit code 01 or 02), engineering, agriculture and forestry technicians (03 or 04), staff for management of scientific technology and auxiliary staff (05), technicians for aircrafts and ships (06), healthcare professionals (07 or 08), staff for the economy (09), staff for legal affairs (10), teachers (11), staff for literature, arts and sports (12 or 13), staff for culture (14), and staff for religion (15). In the 2000 and 2010 censuses, the occupational classifications were modified such that professional and technical staff became scientific researchers (11 or 12), engineering technicians (13, 14, 15 or 16), agricultural technicians (17), aircraft and ship technical staff (18), healthcare professionals (19), economic personnel (21), financial personnel (22), legal personnel (23), teaching personnel (24), personnel for literature and the arts (25), personnel for sports (26), news, publishing and cultural staff (27), staff for religion (28), and other professional and technical staff (29).

As shown in Table 1, the number of professionals increased from 26,457,518 in 1982 to 34,393,821 in 1990, 38,141,750 in 2000, and then further to 48,909,410 in 2010, accounting respectively for 5.07 percent, 5.32 percent, 5.70 percent, and 6.84 percent of the Chinese working labor force. In contrast, the number of cadres/managers (hereafter, managers), including managers in government agencies and related working units (two-digit code 21), managers of party committees and mass organizations (22), managers of neighborhood committees (urban areas) and the people's communes (rural areas) (23), managers of enterprises, institutions and related work units (24) in the 1982 and 1990 censuses, or leading cadres of party organizations at all levels (01), leading cadres of government agencies (02), leading cadres of democratic parties, social groups and organizations (03), leading cadres of institutions (04), and leading cadres/managers of enterprises (05) in the 2000 and 2010 censuses, had increased only by about 4.5 million over the three decades, and its share in the labor force had remained largely the same.

[Table 1 about Here]

Overall, both professionals and managers continue to account for only a small share of the total Chinese working population (the combined proportion was less than 9 percent as of 2010). In this sense, professionals and managers could still be seen as the elite group in the Chinese social stratification system. Higher education has increasingly become a prerequisite for entering professional jobs in China. As shown in Figure 2, in 1982 only 13 percent of professionals held tertiary qualifications (including four-year university degrees and three-year

college diplomas). By 2010, that percentage had gone up to about 70.¹ Meanwhile, people with senior high school or equivalent education decreased from 44.5 percent in 1982 to 22.6 percent in 2010, and people with junior high school or below education plunged from 42.5 percent in 1982 to just 8.2 percent in 2010.

[Figure 2 about Here]

The growing Chinese professionals have become not only more educated but also more diverse in their occupations. For instance, the number of standardized professional occupations (three-digital codes) increased from 85 in 1982 and 1990 to 116 in 2000 and 2010. Furthermore, the size of employment has been growing at different rates for different professions, as shown in Table 2. For instance, the populations of scientific researchers and engineers/technicians respectively increased by 76.6 percent and 113.6 percent from 2000 to 2010, while the populations of health technical staff and teaching personnel respectively increased by 17.5 percent and 9.0 percent during the same period. Different growth rates across professions could also be seen from 1982 to 1990.

[Table 2 about Here]

As shown in Figure 3, if we use the 1990 as the baseline (=1), the number of scientific researchers increased to 1.40 in 2000 and 2.47 in 2010, the number of engineers increased to 1.20 in 2000 and 2.45 in 2010, and the number of legal personnel—a much smaller group—also increased to 1.34 in 2000 and 1.70 in 2010. It seems that engineers and technicians made up most

¹Note that for the 2010 percentage, we used national representative data from the Chinese General Social Survey, because the 2010 census report did not contain information on the distribution of professionals by education.

of the expansion from 2000 to 2010. Meanwhile, the populations of healthcare professionals, teaching professionals, and economic professionals have been growing at a very modest rate since 1990.

[Figure 3 about Here]

The census data typically contain little information on the socioeconomic profiles of professionals. The mini-census in 2005, for the first time, collected information on respondents' earnings, employment status, occupation (two-digit code), work unit sector, working hours, and fringe benefits, in addition to *hukou* status, place of *hukou* registration, current place of residence, education and other demographic characteristics that were also available in the 2000 census. The mini-census in 2005, combining the advantages of both the censuses (large sample size) and the surveys (relatively detailed information), is ideally suited to the investigation of labor market stratification among different occupational groups. We analyze a subsample of the mini-census data, focusing on the comparison between professionals and managers. To demonstrate the internal heterogeneity, we also select four subgroups of professionals (engineers and technicians, healthcare professionals, economic, financial, and legal staff, and teaching professionals, which account for more than 90 percent of all professionals), and two subgroups of managers (administrators in government/institutions and enterprise managers), and compare their demographic and socioeconomic profiles. Results are presented in Table 3.

[Table 3 about Here]

Comparisons between managers and professionals reveal a number of interesting findings. First, professionals are more educated than managers. Over 50 percent of professionals but only about 40 percent of managers have received tertiary education. Almost 70 percent of teaching

professionals have received tertiary education, as opposed to only 36 percent of enterprise managers, reflecting the consequence of the higher education expansion on the growth of Chinese professionals. Second, despite being more educated, professionals earn 37.2 percent ($100 \times [2136.61 - 1340.83] / 2136.61$) less than managers, mostly attributed to the higher earnings of enterprise managers. Third, over 70 percent of professionals but only 44 percent of managers work in the public sector. Finally, professionals are younger, more likely to live in urban areas, and less likely to own a house than managers. About half of the professionals are females, whereas women account for less than 30 percent of managers, suggesting that while Chinese women have gained greater access to professional occupations, they still face a structural barrier to administrative/managerial positions. The finding is largely consistent with the results from the expansion of higher education in favor of Chinese women since the late 1990s (Wu and Zhang 2010).

To summarize, compared to managers, Chinese professionals are better educated but earn significantly less, and they are more tied to the party-state. The role played by any professionals in the modern society and politics is commonly built upon the assumption that they, with their professional expertise for creative and intellectually challenging work, enjoy considerable autonomy. This assumption may not apply to Chinese professionals, however, who mostly work in the public sector. This structural constraint may have important implications for Chinese professionals' political orientation and action, an issue we will examine in the next section with the data from the 2010 Chinese General Social Survey.

Political Orientations and Participation of Chinese Professionals: Evidence from the Chinese General Social Survey in 2010

Because the census and mini-census data contained little information other than social and demographic characteristics, we analyze also the data from the Chinese General Social Survey in 2010 (hereafter CGSS 2010) to examine the values and behavior of professionals relative to managers to shed light on the social and political consequences of a rising number of professionals in China.

The CGSS is an annual/biennial national representative sample survey of the adult population aged 18 or above in China since 2003. The first phase (2003-2008) was conducted jointly by the Hong Kong University of Science and Technology and Renmin University of China and there were five waves of surveys in 2003, 2004, 2005, 2006, and 2008 (Bian and Li 2012). Based on the experience gained from the first phase, the National Survey Research Center (NSRC) at Renmin University of China has launched the second phase of CGSS (2010-2019), with both a revised questionnaire structure and a new sampling design. A multistage stratified random sampling method is used, with 2762 county-level units as the principal sampling unit (PSU). The first-tier cities (Beijing, Shanghai, Tianjin, Guangzhou, and Shenzhen) consisting of 67 PSUs are designated as a self-representative stratum, and the remaining 2695 PSUs, comprehensively ranked by GDP per capita, urbanization level, and population density, are equally divided into 50 strata. In each stratum, 2 PSUs and 4 communities from each PSU are sampled using the Probability-Proportion-to-Size (PPS) method. Finally, 25 households are sampled using the PPS method and an adult aged 18 or above is selected from each household. This sampling design resulted in 12,000 individuals comprising 2,000 from 80 communities in the self-representative stratum and 10,000 from 400 communities in the remaining 50 strata for the 2010 survey.

The questionnaire in the second phase of CGSS contains a core module, which is repeated in every wave of survey in this phase. The questions in the core module cover a variety of topics, ranging from background characteristics, class identity, political attitude and behavior, to labor market participation, migration, health, social welfare, among others. In this section, we examine the political orientations and participation of professionals and managers based on a subsample from CGSS2010. We analyze 899 professionals and 358 managers. Table 4 presents the descriptive statistics of professionals and managers. We also conduct a two-sample t-test for comparisons between the two groups.

[Table 4 about Here]

For the social and demographic characteristics, the patterns are largely similar to what have been shown in Table 3, even with the five-year gap. For example, professionals are even more educated than before. About 70 percent of professionals held tertiary qualifications in 2010, whereas the corresponding percentage is just 36 for managers. Unlike the census, the CGSS collected information on respondents' political status, i.e., whether or not the respondent is a communist party member. Contrary to the dual-path model of career mobility of communist elites (Walder 1995; Walder, Li and Treiman 2000), professionals are not only more educated but also more likely to be a communist party member than managers. This is largely because more and more managers are working in the private sector as enterprise managers instead of as administrative cadres in the public sector. Only 17.76 percent of managers work in the public sector (i.e., in public institutions such as schools and hospitals), as opposed to 64.16 percent of professionals. In other words, Chinese professionals have largely continued to rely on the state when it comes to earning a living.

The differences in other characteristics between professionals and managers, just as expected, are consistent with the findings in the 2005 mini-census. Professionals are younger than managers and many more women assume the role of the former than that of the latter. Additionally, more professionals are residing in cities.

Of special interest to us are the political orientation and behavior of Chinese professionals. We examine three indicators in this regard available in CGSS 2010: (1) attitude toward democracy, (2) whether they voted in community (neighborhood or village) elections in the past three years, and (3) whether they voted in owners' committee election if applicable. We compare Chinese professionals and managers in terms of these indicators.

The CGSS contains 6 items designed to tap the attitude towards democracy and government accountability: (1) government must consult public opinion before making tax policy; (2) I have to live with it if the government encroach my interest; (3) government officials' work is to serve the people; (4) ordinary folks should show gratitude for government leaders' Samaritan activities ("sending warmth"); (5) the people should obey/listen to their government; and (6) one should have the rights to discuss government expenditure as long as he/she pays tax. Each respondent was asked to indicate their opinion on a five-point scale, ranging from 1 for strongly disagree to 5 for strongly agree. We reverse the coding for items 2, 4 and 5, and add up the scores for all six items to form our measure of the attitude towards democracy, the value of which ranges from 7 to 25 in the full sample. A higher score indicates higher acceptance towards democracy.

Results in Table 4 show that, on average, professionals score 17.51 points and managers score 17.09 points on our barometer of attitude towards democracy. A two-sample t-test

indicates the difference is statistically significant. In other words, Chinese professionals are more accepting of democracy than managers. On the other hand, only 32.19 percent of professionals but 40.90 percent of managers reported that they have voted in community elections. However, professionals seem to be more involved in the owners' committee elections than managers: 38.93 percent of professionals and 24.19 percent of managers have voted in these elections.

The differences in political orientation and behavior between professionals and managers may be associated with other characteristics (especially education), rather than their occupational class. We thus proceed to multivariate analyses, controlling for the effects of education, party membership, age, gender, employment sector and residence. Table 5 presents results from OLS regressions on attitude towards democracy among Chinese professionals and managers. Independent variables include professionals, college education, party member, public sector, male, and urban residence (all of which are coded as dummy variables, yes=1) and age (which is measured as a continuous variable). Data are weighted to represent the Chinese general population and the robust standard errors are presented to take into account the clustering effect on PSUs.

[Table 5 about Here]

We first show the result from the analyses of all samples in Models 1a and 1b. The estimated coefficient in the bivariate regression in Model 1a confirms the findings in Table 4, namely, professionals are more open towards democracy (0.343 more points; $p < .10$). However, once we control for the other variables, especially education, in Model 1b, professionals and managers no longer differ in their attitude towards democracy. Only college education becomes a significant predictor. Indeed, those with college education tend to be more

accepting of democracy (0.718 more points; $p < .001$) than those without. Therefore, the difference observed between professionals and managers in terms of their attitude towards democracy is largely attributable to their differential educational backgrounds.

As we have noted in Tables 3 and 4, more than 70 percent of professionals in 2005 and 60 percent in 2010 worked in the public sector, which bears important implications for their autonomy and political orientation. Therefore, we conduct analyses separately for the public sector (Models 2a and 2b) and private sector (Models 3a and 3b). Results show that, in the public sector none of the variables, including tertiary education, can predict the tendency scores. In contrast, in the private sector, professionals score significantly higher than managers (0.652 points higher; $p < .001$) (in Model 3a), and this is due entirely to their education: those with tertiary education and those without differ in the tendency score by 1.117, and the difference is highly significant ($p < .001$). Therefore, the pattern we identified in the whole sample is driven mainly by those working in the private sector.

Finally, we examine two indicators of political behavior via binary logistic regression in Table 6: whether or not the respondent has voted in community elections in the past three years and whether or not the respondent has voted in the owners' committee. Both indicators are coded dummy variables (yes=1). The independent variables are the same as those in Table 5.

[Table 6 about Here]

The bivariate logistic regression analyses in Model 1a of Table 6 show that, professionals are less likely than managers to vote in community elections: their odds of voting are only 68.6 percent ($e^{-0.377}$) of those for managers ($p < .05$). In Model 1b, we introduce additional variables. Those with college education are significantly less likely to vote in community elections, and

their odds of voting are only 60.9 percent ($e^{-.496}$) of those for people with college education ($p<.01$). Party members are more likely to vote than non-party members ($p<.10$), and those working in the public sector are more likely to vote than those working in the private sector ($p<.05$). Age is positively associated with the tendency to vote in community elections, but urban residents are less likely to do so than rural residents. After taking into account these factors (education in particular), professionals and managers no longer differ in their tendency to vote in community elections.

With the marketization of housing and the development of the real estate market since the late 1990s, many urban Chinese families, especially the middle class ones, have become property owners (of at least their own apartments). Homeowners' committees have been formed in recent years and play an active role in grassroots governance and collective actions (Cai 2005; Cai and Sheng 2013) and political participation (Li and Wang 2012). In CGSS 2010, the respondent was also asked whether he/she has voted in the homeowners' committee elections.²

A total of 248 professionals and managers reportedly lived in the new community of commercial housing where the homeowners' committee had held election in the CGSS data. Models 2a and 2b of Table 6 show that, in contrast to their lower participation in neighborhood committee/village elections than managers, professionals are indeed more likely than managers to vote in homeowners' committee elections. The difference is statistically significant ($p<.05$). Even when we introduce other independent variables, the pattern still holds: professionals' odds of voting in homeowners' committee elections are twice as high as managers' ($e^{0.694}$), and the

²Homeowners' committees may or may not be available in some communities, depending on the nature and history of the community.

difference continues to be statistically significant ($p < .05$). Notably, education does not seem to affect professionals' tendency to vote in the homeownership committee elections.

The contradictory voting patterns of Chinese professionals can be explained by the different natures of the two types of grassroots elections. While neighborhood committees are extensions of the party-state to the urban grassroots and perform administrative duties that facilitate a wide range of government programs, homeowners' committees are formed out of owners' interests as newly emerging self-governed organizations, which enjoy relatively more autonomy. Compared to their managerial counterparts, Chinese professionals, due to their higher education, are generally in favor of democracy and government accountability but remain suspicious of community elections as a form of grassroots democracy promoted by the party-state. Chinese professionals' tendency toward political participation is manifested in their voting in homeowners' committees instead of neighborhood committees.

Summary and Conclusions

Analyses of the census data from 1982 to 2010 reveal a substantial growth in the number of Chinese professionals. While economic structural changes and occupational upgrading have both been driving the growth, it is the dramatic expansion of higher education since the late 1990s that is the main culprit. We depict the heterogeneity among professionals, and the differential growth rates and compositions of major professions. Engineers and technicians not only constitute the largest professional group but have also experienced the highest growth, with their population more than doubling from 2000 to 2010. Compared to managers, Chinese professionals are more educated, younger, and earn less on average. This is largely because managers increasingly

consist of enterprise managers in private enterprises rather than administrative cadres in government and public institutions, and educational credentials are not a prerequisite for becoming enterprise managers. It also explains why the percentage of professionals working in the public sector is higher than that of managers and why there is a higher proportion of party members among professionals than among managers.

Professionals, together with managers, form a majority of the emerging new middle classes in China. Their political orientations and participation will bear important implications for China's institutional changes in the future. We take advantage of the data from the 2010 Chinese General Social Survey to shed light on these implications. Professionals display more favorable attitude towards democracy than managers, measured by their answers to a series of relevant questions, but their stance can be explained by the higher education they have received. The patterns become even clearer in the private sector. In the public sector, college education does not have a significant effect on the attitude towards democracy.

Despite their more favorable attitudes towards democracy than managers, Chinese professionals are less likely to vote in neighborhood/village committee elections, which is again attributable to their higher education. Nevertheless, they are more active in voting in homeowners' committee elections, even after taking into account their educational attainment. The paradox can be explained by the fact that one type of elections is related to the party-state whereas the other type is not. While grassroots democracy at neighborhood/village committee levels has been constantly advocated and promoted by the government since the 1990s, those who really want democracy (e.g., professionals) seem to be less enthusiastic about the political opportunity. With the rapid development of the real estate market in recent decades, homeowners' committees as a new form of autonomous organizations have started playing

important roles in grassroots governance and serving the interests of the middle classes, including professionals, who are more likely to be homeowners.

The findings also reflect the paradoxical position that professionals occupy in Chinese social structures. While they are increasingly more educated and lean more towards political liberalization and democracy, their professional expertise has not given them much autonomy and most of them continue to be employed in the public sector closely tied to the party-state, e.g., doctors working in government-funded hospitals, teachers working in public schools with government-sanctioned curriculums. Thus, their behavior may not necessarily be in line with what they think and believe.

Previous studies have shown that members of the new Chinese middle classes are indifferent toward political liberalization (Chen 2013). Here we provide an exemplar case involving professionals to illustrate how new social forces continue to be constrained by the pre-existing structure. Changes are incremental, nevertheless. We have identified the roles of higher education and employment in the private sector in affecting people's attitude towards democracy. If the trends continue with more Chinese citizens gaining access to higher education and more college-educated professionals working in the non-public sector, we can remain optimistic about the role to be played by professionals in driving social and political changes in China in the decades to come.

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Table 1. The Growth of Professional and Managerial Occupations in China, 1982-2010

Year	Professionals (%)	Administrators/managers (%)	Total labor force
1982	26,457,518 (5.07%)	8,130,787 (1.56%)	521,505,618
1990	34,393,821 (5.32%)	11,328,317 (1.75%)	646,226,387
2000	38,141,750 (5.70%)	9,288,120 (1.39%)	668,748,890
2010	48,909,410 (6.84%)	12,686,410 (1.77%)	715,479,890

Note: The figures for 2000 and 2010 are computed from the long-form census data multiplied by 10.

Table 2. The Changing Compositions of Chinese Professionals, 1982-1990 and 2000-2010

Prof. occupation (2-digit code)	1982	1990	diff %	Prof. occupation (2-digit code)	2000	2010	diff %
Scientific Researchers (01-02)	154191	198019	28.4	Scientific researchers (11/12)	27658	48835	76.6
Engineering, Agriculture and Forestry Technicians (03/04)	2906462	4510846	55.2	Engineering technicians (13/14/15/16)	486399	1038710	113.6
				Agricultural technicians (17)	56499	65658	16.2
Staff for Management of Scientific Technology Auxiliary Staff (05)	299078	78919	-73.6				
Technicians for Aircrafts & Ships (06)	60607	134962	122.7	Aircraft & ship technical staff (18)	11320	15842	39.9
Health Technicians (07/08)	4614698	4575233	-0.9	Health technical staff (19)	577529	678482	17.5
Staff for the economy (09)	7701008	11840783	53.8	Economic personnel (21)	945482	933343	-1.3
				Financial staff (22)	185473	346633	86.9
Staff for legal affairs (10)	175739	369893	110.5	Legal Personnel (23)	49689	62947	26.7
Teachers (11)	9596323	11242508	17.2	Teaching personnel (24)	1326316	1446111	9.0
Staff for literature, arts and sports (12/13)	511473	482363	-5.7	Personnel for literature and the arts (25)	44999	108066	140.2
				Personnel for sports (26)	4054	4326	6.7
Staff for Culture (14)	412491	836448	102.8	News, publishing and cultural staff (27)	77515	88814	14.6
Staff for religion (15)	25448	123847	386.7	Religious staff (28)	11233	12857	14.5
				Other professional & technical staff (29)	10009	40317	302.8

Note: Figures for 2000 and 2010 need to be multiplied by 10 as they are from 10% long-form data.

Table 3. Socio-Economic Profiles of Chinese Managerial and Professional Classes, 2005

	Managers			Professionals				
	1. Overall	1a. Cadres & Administrators	1b. Enterprise Managers	2. Overall	2a. Engineers & Technicians	2b. Healthcare Professionals	2c. Economic, Financial, and Legal Prof.	2d. Teaching Professionals
Tertiary Education	41.17	51.89	36.43	53.43	47.94	42.43	49.52	69.40
Monthly income (yuan)	2136.61 (3022.42)	1280.18 (1217.17)	2512.41 (3471.91)	1340.83 (1117.22)	1758.76 (1534.32)	1102.23 (919.75)	1360.32 (1169.87)	1226.16 (716.26)
Public sector	44.36	86.44	27.48	72.89	54.76	72.16	67.76	92.20
Age	40.52 (9.78)	42.17 (9.77)	39.78 (9.70)	36.36 (10.27)	35.41 (10.18)	37.66 (11.65)	36.27 (9.22)	36.76 (10.11)
Male	77.87	76.25	78.58	50.13	75.94	43.96	38.61	45.31
Housing ownership	78.87	85.83	75.79	75.79	68.16	77.79	81.33	76.22
Urban residence	81.50	72.07	86.66	83.6	86.77	78.71	91.04	78.71
N	3199	981	2218	12522	2161	1977	3403	3860

Note: Figures in the parentheses are standard deviations for continuous variables. The four types of professionals selected account for 91 percent $[(2161+1977+3403+3860)/12522]$ of all professionals.

Table 4. Selected Characteristics of Chinese Professionals and Managers, 2010

	Professionals	Managers	T-test
College education	69.18	36.26	$\Pr(T_P > T_M) = 0.000$
Party member	33.50	26.84	$\Pr(T_P > T_M) = 0.012$
Public sector	64.16	17.76	$\Pr(T_P > T_M) = 0.000$
Age	38.16 (10.65)	40.48 (10.45)	$\Pr(T_P < T_M) = 0.005$
Male	57.51	74.87	$\Pr(T_P < T_M) = 0.000$
Attitude towards democracy	17.51 (2.648)	17.09 (2.520)	$\Pr(T_P > T_M) = 0.009$
Vote in community elections	32.19	40.90	$\Pr(T_P < T_M) = 0.004$
Vote in homeowners' committee elections	38.93	24.19	$\Pr(T_P > T_M) = 0.018$
Urban residence	88.80	83.40	$\Pr(T_P > T_M) = 0.001$
N	899	358	

Note: The data are obtained from the 2010 Chinese General Social Survey.

Table 5. Multivariate OLS Regressions on Attitude towards Democracy for Chinese Professionals and Managers, 2010

	Overall Sample		Public Sector		Private Sector	
	Model 1a	Model 1b	Model 2a	Model 2b	Model 3a	Model 3b
Prof. vs. manager	0.343 [†] (0.180)	0.184 (0.246)	-0.254 (0.428)	-0.378 (0.469)	0.652** (0.248)	0.300 (0.262)
College education		0.718*** (0.205)		0.167 (0.273)		1.117*** (0.276)
Party members		0.050 (0.157)		0.024 (0.237)		0.041 (0.295)
Age		-0.009 (0.009)		-0.004 (0.014)		-0.012 (0.012)
Male		0.079 (0.189)		0.291 (0.283)		-0.084 (0.261)
Urban		0.420 [†] (0.247)		0.652 (0.396)		0.297 (0.286)
Public sector		-0.277 (0.220)				
Constant	16.83*** (0.310)	16.86*** (0.479)	17.91*** (0.854)	17.15*** (1.255)	16.42 (0.363)	16.76*** (0.593)
(Pseudo) R ²	0.004	0.030	0.001	0.012	0.015	0.074
N		1087		559		528

Note: The data are obtained from the 2010 Chinese General Social Survey and are weighted. Robust standard errors have been adjusted for the principal sampling units. *** p<0.001, ** p<.01, * p<0.05, [†]p<0.1.

Table 6. Binary Logistics Regressions on Participation in Voting for Chinese Professionals and Managers, 2010

	Voting in Community Elections		Voting in Homeowners' Committee Elections	
	Model 1a	Model 1b	Model 2a	Model 2b
Prof. vs. manager	-0.377* (0.166)	-0.253 (0.201)	0.655* (0.261)	0.694* (0.305)
College education		-0.496** (0.181)		0.246 (0.408)
Party member		0.294† (0.174)		-0.145 (0.338)
Public sector		0.434* (0.180)		0.104 (0.346)
Age		0.046*** (0.007)		0.073*** (0.017)
Male		-0.128 (0.143)		0.111 (0.325)
Urban		-1.448*** (0.235)		-0.449 (1.111)
Constant	-0.368 (0.135)	-0.879† (0.454)		-3.977** (1.466)
(Pseudo) R ²	0.023	0.111	0.015	0.095
N	1252	1095	248	214

Note: The data are obtained from the 2010 Chinese General Social Survey and are weighted. Robust standard errors have been adjusted for the principal sampling units. *** p<0.001, ** p<.01, * p<0.05, †p<0.1.

Figure 1. The Growth in the Number of Institutions, Student Admissions and Graduation Numbers in the Chinese Higher Education System, 1990-2010

Figure 2. Changing Educational Qualifications of Chinese Professionals, 1982-2010

Source: Chinese population censuses in 1982, 1990, and 2000, and the 2010 Chinese General Social Survey

Note: Since the 1982 census did not make a distinction between three-year college diplomas and four-year university degrees, the two are combined in the chart.

Figure 3. Growth of Specific Professions, 1990, 2000, and 2010