Does "Revolving Door" Matter?

Politically-Embedded Knowledge Regime and the Effects of Career Mobility on Think Tanks in China

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Abstract: Does "revolving door" or the cross-sectoral career mobility of think tankers matter for non-American think tanks? This article conceptualizes the "politically-embedded knowledge regime" to visualize a distinctive policy-making and consultation system in which political power is deeply embedded in the administrative and personal networks between the bureaucratic decision makers and their professional consultants. Chinese think tanks are cultivated in the politically-embedded knowledge regime in which the traditional Chinese Confucian culture and the "bureaucracy-oriented tradition" shape their behaviors. I argue that in the Chinese politically-embedded knowledge regime, the revolving door does not positively contribute to the influence and revenue of think tanks. Moreover, revolving door negatively affects the personal social networks of think tankers. I empirically evaluate the effects of revolving door in China based on a nationwide think tank survey and interview data the author has conducted. Heterogeneous analysis and propensity score matching are conducted to present the robustness of the regression results. The research findings also contradict the traditional doctrines regarding the effects of cross-sectoral career mobility and therefore motivate us to review such principles.

Key Words: revolving door, think tanks, politically-embedded knowledge regime, career mobility, social networks

Introduction

"Revolving door" has always been regarded as an essential factor for the prosperity of American think tanks. A large number of publications on American think tanks have argued that the revolving door, that is, the career mobility of former politicians, scholars, lobbyists, or journalists from different sectors, such as government, congress, university, industry, and media, to policy research institutes, or vice versa, builds one of the most effective transmission belts for ideas to travel from the American think tanks to the government (Stone 1996; Abelson 1996; 2009; 2014; McGann and Sabatini 2011). However, we must admit the fact that, although it seems a prevailing recruitment strategy for global think tanks now (Stone 2013), revolving door does not incur salient effects for think tanks in other countries around the world (McGann and Sabatini 2011: p. 37; Campbell and Pedersen 2014). Thus, whether revolving door matters for non-American think tanks needs to be looked into.

In this article, I conceptualize the "politically-embedded knowledge regime," a distinctive policy-making and consultation system in which political power is deeply embedded in the administrative and personal networks between the bureaucratic decision makers and their professional consultants. Moreover, no mature marketplace of ideas exists in a politically-embedded knowledge regime because influencing policies through public debate is unnecessary. Think tanks influence policies mainly through direct or indirect channels to the authorities. Therefore, think tanks cultivated in such a knowledge regime both benefit and suffer from politically-embedded

networks. On the one hand, think tanks deeply rely on their administrative linkages and personal networks of decision makers and other social elites rather than on public debate to achieve influence. On the other hand, surprisingly, think tankers who experience revolving door from the government or other sectors fail to positively contribute to their organizational influence and revenue because they have already lost political and administrative powers in their previous agencies. Moreover, after losing administrative powers, think tankers who experience the revolving door have significant disadvantages in building their personal social networks, which indirectly hinder their achievement of influence.

There is a typical politically-embedded knowledge regime in China, where politicians and intellectuals are fundamentally influenced by the traditional Chinese Confucian culture and the "bureaucracy-oriented tradition" (*Guanbenwei*). This article reports an empirical analysis to evaluate the importance of revolving door to Chinese think tanks in terms of exerting influence, obtaining revenue, and building personal social networks of think tankers. Evaluating the importance of revolving door for think tanks in China is particularly critical because the Chinese top leadership has begun to promote the establishment of "New Style Think Tanks with Chinese Characteristics" officially since 2013. In this context, many discussions and suggestions have been proposed for China to embrace a revolving door mechanism similar to that of the American think tanks to promote the development of Chinese think tanks (Li 2009; Wang 2011; Ren 2016). More importantly, the "Opinion on

Strengthening the Establishment of New Style Think Tanks with Chinese Characteristics," which was newly released by the Chinese Communist Party Central Committee and the State Council in 2015, has a stipulation to "promote talent mobility between government agencies and think tanks." Nevertheless, so far no empirical research has been conducted to evaluate the exact effects of revolving door on Chinese think tanks.

Using a unique nationwide think tank survey data, this research aims to argue that revolving door does not contribute to Chinese think tanks. I construct the key independent variable of "revolving door" as the think tank leaders who have experienced career mobility from different types of organizations to the current think tanks. I also measure the influence (with three levels: decision-maker, academic, and mass media influences), obtained revenue, and personal social networks of think tank leaders. The effects of revolving door on think tanks' influence, obtained revenue, and personal social networks are then tested. Regression models show that revolving door does not have any contribution to think tank influence and obtained revenue after all other related individual (think tank leaders) and organizational features are controlled. Moreover, revolving door significantly and robustly negatively affects the personal social network building of Chinese think tankers. In addition, propensity score matching (PSM) is conducted to overcome the potential selection bias of the revolving door of a think tanker. After matching the propensity scores of the treatment group of think tankers who have experienced revolving door and the control group of

think tanks who have not, strong empirical evidence confirms the above regression results. Therefore, this empirical study implies that the developmental experiences of American think tanks may be irrelevant after being transplanted to other countries, especially if there are politically-embedded knowledge regimes in these countries.

This article also inspires us to review the organizational theories regarding social networks that cross-organizational career mobility is contributive to social network building because people can accumulate social capital through weak personal ties from prior jobs (Wegener 1991; Lin 2001; Podolny and Baron 1997; Higgins 2001; Seibert et al. 2001). However, in a politically-embedded knowledge regime, the career mobility of think tankers and officials undermines their personal social networks. Therefore, government officials or other social elites who lost their political and administrative powers in their previous bureaucracies suffer from revolving door in accumulating personal ties after they become policy experts in Chinese think tanks.

Effects of Revolving Door: Revisited

Revolving door has always been regarded as a positive factor in promoting individual and organizational achievements. Apart from those of American think tanks and lobby industries (Vidal et al. 2012; Bertrand et al. 2014), revolving door of bureaucrats and bankers also contributes to innovation and leadership in municipal service and banking sectors (Teodoro 2011; Adolph 2013).

Two mainstream views regarding the importance of the revolving door in literature exist. The first view argues that those who have prior experience in government agencies or other types of organizations have high expertise that help think tankers achieve influence (Salisbury et al., 1989; Esterling 2004; Diermeier et al. 2005; Burger 2006; Augier, et al. 2015). The second contends that revolving door enhances the connections to the key decision makers in the White House and Capitol Hill (Dalhoff and Dye 1987; Revolving Door Working Group 2005; Vidal et al. 2012) and consequently helps obtain influence and revenue (Bertrand et al. 2014). Although there is debate on which mechanism is more important between "what you know" (expertise) or "whom you know" (connections) for think tanks who are willing to influence the policy making (Stone 2007), one consensus seems to have been reached in organizational theories that cross-organizational or cross-sectoral career mobility enhances social network buildings, because people can accumulate social capital through their weak personal ties from previous jobs (Wegener 1991; Lin 2001; Podolny and Baron 1997; Higgins 2001; Seibert et al. 2001).

However, I contend that the preceding theories mentioned on revolving door may not be necessarily applicable across all political and social contexts because the theories are based on a series of specific conditions. First, politicians routinely vacate their positions. In bipartisan American politics, politicians must find new jobs after the rotation of ruling parties. Think tanks, lobbyist firms, universities, non-governmental organizations, banks, and other organizations provide them with

new job opportunities, which create the mechanisms of revolving doors. Nevertheless, in the United Kingdom where there is a “shadow cabinet system”, high-level politicians do not worry about losing their jobs even if their parties have lost their ruling power. (Denham and Garnett 1998) Likewise, in France and Germany, because of the well-established career civil service, the sort of revolving door that swings between public and private organizations in America are largely absent (Campbell and Pedersen 2014: 147) Therefore, many countries around the world, even including the major western countries, do not have salient revolving door mechanisms despite having democratic polities similar to the United States.

Second, former officials who have experienced revolving door are expected to return to their offices once their parties regain dominance. The tendency of decision makers to utilize knowledge from think tankers, who have collaborative experiences with them and more expertise in different jobs, is also understandable. Therefore, think tanks provide a realistic habitat for laid-off high-level politicians to continue exerting their political influence. However, this situation is not always true everywhere. In circumstances where no party rotations exist, officials are ultimately reluctant to leave their administrative positions. Even if there are very rare cases in which politicians have to step down because of a number of reasons, including retirement or certain scandals, former politicians are not expected to return to their offices anymore. Consequently, transmission belts for ideas to travel from the think tanks to the government may not exist in such political contexts.

Third, no orderly hierarchy exists in a society embedded by political and administrative powers in different careers. Despite losing their political power, former officials maintain their social status without losing their personal connections inside the bureaucratic system. Therefore, former officials can contribute their energy and personal networks to promote think tank influence, thereby creating a virtuous circulation. However, in a society where political and administrative powers are deeply embedded in daily social connections and communications, former officials may gradually lose their social status and social connections within decision-making bureaucracies. Therefore, in a society with an orderly hierarchy embedded by administrative power, whether revolving door helps the prosperity of think tanks must be reinvestigated.

Politically-Embedded Knowledge Regime

Unlike the previous theories on revolving door, I conceptualize in this article the "politically-embedded knowledge regime." Knowledge regimes can be defined as the organizational and institutional machinery that generates data, research, policy recommendations, and other ideas that influence public debate and policymaking (Campbell and Pedersen 2014). In a knowledge regime, policymakers require policy ideas produced by knowledge regimes insofar as the policy problems they confront are often ambiguous and uncertain (Zahariadis 2003). Meanwhile, think tanks produce professional consultation to influence decision-making through personal ties or in the

marketplace of ideas (Smith 1991). In a comparative study among the United States, France, Germany, and Denmark entitled *The National Origins of Policy Ideas*, Campbell and Pedersen (2014) argue that various national knowledge regimes are largely determined by nationally specific institutions, which not only reflect material political and economic interests but also depend on institutional and cultural circumstances.

The "politically-embedded knowledge regime" proposed in this article emphasizes a specific type of knowledge regime with "political embeddedness." The previous conceptualization of "political embeddedness" usually refers to broad political forces which shape economic institutions (Zukin and DiMaggio 1990; Fligstein 1990). However, as the importance of the close ties between think tankers and politicians for transmitting policy ideas to the decision-making system has long been established, the conceptualized political embeddedness refers to the knowledge regimes wherein political power is deeply embedded in the administrative and personal networks between the bureaucratic decision makers and their professional consultants.

A politically-embedded knowledge regime encompasses several institutional and societal elements. First, unlike their counterparts in the United States, think tanks in such a knowledge regime are largely affiliated with their respective political parties or are organizationally connected with the government. In the United States, think tanks are legally registered as non-governmental organizations and refuse to be regarded as

organizations connected with the government and the political parties. However, such politically-embedded think tanks commonly exist in China, Germany, Singapore, and a few other Asian, European, and Latin American countries (Stone, Denham, and Garnett 1998; McGann and Weaver 2000; McGann and Johnson 2005). Second, different from the social networks built in the daily life in a society, personal ties in such a knowledge regime largely depend on the administrative status of the people in the society in which orderly hierarchy is deeply embedded by political and administrative powers. Therefore, the personal ties established between politicians and think tankers are unstable depending on the changing political resources they possess. Finally, as administrative affiliations and politically-embedded personal ties play essential roles in the process of proposal and the adoption of policy ideas rather than expertise provided by consultants (Michelson 2007), establishing a highly competitive marketplace of ideas is unnecessary in the knowledge regime. Therefore, in a politically-embedded knowledge regime, think tanks tend to influence policies through direct channels to bureaucratic decision makers rather than through public debates in the marketplace of ideas.

Consequently, think tanks cultivated in such a knowledge regime both benefit and suffer from political embeddedness. On the one hand, think tanks can obtain personnel and fiscal resources from the political organs without making efforts and struggling to survive. Meanwhile, they simply rely on their administrative linkages and personal networks to the decision makers and other social elites rather than on

public debate in the marketplace of ideas to achieve influence. On the other hand, the revolving door of think tankers who have moved careers from different sectors failed to positively influence their organizational influence and revenue because think tankers without administrative powers in their previous agencies do not bring cross-sectoral resources with them. Moreover, after losing previous political and administrative powers, think tankers experiencing revolving doors have significant disadvantages in building their personal social networks, which indirectly prevents them from achieving influence.

A typical knowledge regime with political embeddedness exists in China. First, within a one-party dominated political structure, Chinese think tanks, even those regarded as non-governmental ones, inevitably have more or less administrative affiliations with political organs. Chinese think tankers still prefer direct influence on authorities through administrative channels rather than resorting to public opinion because of the long tradition of the Confucian spirit of "scholar–bureaucrat" (Shidafu, 士大夫) (Wang 2008; Noakes 2014; Zhu 2016). Moreover, their connections with political authorities not only shape the organizational structure of Chinese think tanks (Zhu and Xue 2007), they also determine their behavioral strategies to influence policies (Zhu 2009). Second, Chinese intellectuals and politicians are fundamentally affected by the traditional Chinese culture that discourages career mobility. In the Chinese Confucian culture, loyalty, *guanxi*, and *pao* (debt of gratitude) profoundly affect staff members who are normally reluctant to leave their organizations (Wong et

al. 2001). Moreover, in the Chinese society where an existing "bureaucracy-oriented tradition" prioritizes an orderly hierarchy in which political and administrative powers are heavily concentrated in society (Li and Cheng, 2012: 138), the former officials who have vacated their positions will lose their administrative power and social status in such an orderly hierarchy. Therefore, I argue that the behaviors of Chinese think tanks are deeply shaped by the politically-embedded knowledge regime which stems from the Confucian culture and the "bureaucracy-oriented" tradition in China. In the remaining sections of this article, I will evaluate the effects of the revolving door on Chinese think tank performance in the politically-embedded knowledge regime.

Revolving Door of Think Tanks in the Chinese Knowledge Regime

Chinese think tanks are stable, autonomous organizations that investigate policy issues to influence the policy process (Zhu and Xue 2007: 453).These organizations have gradually become important and active policy actors in the Chinese politically-embedded knowledge regime (Tanner 2002; Keyser 2003; Zhu 2013). After the introduction of the reform and opening-up policy in 1978, many think tanks were established in China under the supervision of central and local governments. However, the Tiananmen Square incident at the end of the 1980s introduced a two-year hiatus in China's think tank history. Following Deng Xiaoping's 1992 South China

tour (*Nanxun Jianghua*), which ushered a new era of Chinese reform, various types of think tanks began to flourish, especially on-campus and private research institutes (Naughton, 2002). In 2007, the 17th Chinese Communist Party (CCP) Congress mentioned for the first time "the roles of think tanks." In 2013, the Party Report called for the establishment of "New Style Think Tanks with Chinese Characteristics" at the Third Plenum of the 18th CCP Congress, which signified that Chinese top leaders had officially recognized the significance of think tanks and tried to strengthen the roles of think tanks in the policy process. Afterward, a nationwide campaign of developing Chinese think tanks was initiated afterward.

Chinese think tanks can be generally classified into government-sponsored semi-official think tanks and non-governmental think tanks according to their affiliations with the authorities. Semi-official think tanks are legally registered as public institutions (*shiye danwei*) that are founded and sponsored by the government, and government-sponsored think tanks have well-defined administrative linkages with the government. By contrast, non-governmental think tanks include policy research institutes that are registered as affiliated institutes under universities, civilian nonprofit institutions (*minban feiqiye danwei*) or enterprises (*qiye*). Non-governmental think tanks have less administrative affiliation than the government-nominated ones. Although non-governmental think tanks have their supervising units (*guakao danwei*), some of which are also government agencies, non-governmental think tanks and their supervising units have a relatively loose

relationship. In addition, both types of Chinese think tanks have diverse sources of seed capital, including governmental foundations, universities, enterprises, overseas foundations, domestic non-governmental foundations, or private donations.

Connections to political powers are the most important factors for Chinese think tanks to achieve success in exerting influence. China has long been suffered from the opaque and fragmented policy processes. Despite the fact that generations of Chinese top leadership have realized the importance of decision making rationalization and democratization and repeatedly encouraged expert consultation in the recent decades, there has been no mature marketplace of ideas in the policy process until now (Fewsmith 2001; Huang and Economy 2015). In a free intellectual market, the competition for dollars, media, and attention is important for the success of think tanks (Smith 1991; McGann 1995; Medvetz 2012). In the Chinese politically-embedded knowledge regime, however, think tanks rely more on administrative linkage and social networks with the government to directly or indirectly influence policies. Empirical evidence with case studies has demonstrated the different mechanisms for Chinese think tanks to exert influence through connections with the authorities (Glaser and Saunders 2002; Keyser 2003; Liao 2006; Abb 2015; Bing 2015). Moreover, quantitative analyses using data from a nationwide organizational survey illustrate that administrative linkages more significantly contribute to the influence of governmental-sponsored think tanks on policies because those think tanks are closely administratively affiliated with the political organs,

whereas non-governmental think tanks can hardly use such administrative linkages, but rely more on personal social networks of think tank leaders with the decision makers, to influence policies (Zhu 2009; 2011).

However, previous studies have largely ignored the effects of career mobility on Chinese think tank performance in terms of their organizational influence and revenue and individual social networks. In the Chinese knowledge regime, a think tanker that has revolved from government agencies or from other sectors will gradually lose their personal connections that they have previously accumulated. Interviews with a large number of Chinese think tankers conducted by the author provide evidence on why think tank leaders are rotated from different sectors. Given that some think tankers may refuse to acknowledge fully the organizational value of their original sectors, they will leave their original establishment sectors and establish a private or non-governmental think tank. Moreover, given that some experts have loose interpersonal network connections in their original organizations, they prefer to leave their original organizations and build relatively independent research institutes. Similar cases occur when some officials lose their potentials to be promoted in the establishment further or are about to retire. These officials then sought to be revolved into think tanks. One extreme case is Qiu Xiaohua, former minister of the National Bureau of Statistics of China, became a chief economist of a think tank after being imprisoned for two years because of his corruption scandal. Therefore, Chinese think tankers with revolving door experience do not help to accumulate personal social

networks from their original sectors; otherwise the factor significantly negatively affects the personal social networks of think tankers.

Based on the above theoretical analyses, I argue that revolving door has not positive or even negative effects for Chinese think tankers to build their social networks, which are key determining factor for think tank influence and revenue. Therefore, I may further argue that revolving door of think tankers does not contribute to the influence and revenue of their think tanks either. The shortage of systematic evaluation on the effects of revolving door on Chinese think tank performance may not be only because it is very hard to collect original organizational data but also because of the methodological difficulties of capturing the abstract variables such as influence, career mobility, and social networks. Fortunately, the survey questionnaire in this research includes special questions about the career mobility of think tankers and well-designed index systems of think tank influence and social networks. Therefore, I try to fill the gap with empirical analyses on the relations among revolving door, influence, revenue, and social networks of think tanks in the Chinese politically-embedded knowledge regime.

The Survey and Variables

The China Think Tank Survey (CTTS) was conducted by mailing questionnaires to think tank leaders throughout China. Based on the registered official information in 2003 from the Division of Soft Science at the Ministry of Science and Technology of China (MOST)[1], 1,124 qualified think tanks in various policy fields were interviewed in 2004, and 288 valid government-sponsored and university-affiliated think tank samples from 25 provinces (municipalities and autonomous regions) responded to the survey with a 25.6 percent response rate.[2] Almost all respondents carefully answered the questionnaires such that only a small amount of data was missing from the completed questionnaires. Testing the representative of the sample was crucial because the survey respondents were not randomly selected. I validated the high representativeness of the sample by comparing the survey data with official ones from the MOST. See "Appendix" for further details on the test of representativeness.

Table 1 about here

Table 1 presents the descriptive statistics of the surveyed think tank samples. A total of 161 government-sponsored think tanks and 127 university-affiliated think tanks were included in the survey sample. The average personnel size of researchers working in a Chinese think tank is 30.6, in which government-sponsored think tanks

[1] Soft-science (*ruankexue*) indicates that policy makers consult research for decision-related advice. The Division of Soft Science in the MOST was in charge of overseeing the registration and management of all soft science research institutes in China regardless of their fields. Therefore, the think tank survey samples cover various policy fields that are not limited to science and technology policy.

[2] A total of 301 valid think tank samples have been recruited for the survey. However, given the very small number of non-governmental think tanks that are registered as enterprises or CNPIs, I only consider the government-sponsored and university-affiliated think tank samples, which constitute the majority (288 samples).

are 1.91 times larger than the university-affiliated ones. The average annual revenue and research expenditure of Chinese think tanks are 3,055,000 and 1,790,000 RMB, respectively. Government-sponsored think tanks are significantly richer than the university-affiliated ones. The statistical data show that government-sponsored think tanks are established earlier than the university-affiliated ones, which is in accordance with the historical development of these organizations (Zhu and Xue 2007).

Panel B reports the personal characteristics of think tank leaders. First, in terms of expert knowledge of think tank leaders (measured by education), 57.6 percent of the think tank leaders have received a master's degree or above, and 12.8 percent have studied overseas. University-affiliated think tank leaders have a significantly stronger educational background than their peers in government-sponsored think tanks. Second, the samples have spent an average of 9.67 years working in think tanks, which reflect their research experiences as another measurement of expert knowledge of the think tank leaders. Third, the questionnaires asked the samples about their administrative levels, which can be either regarded as the personal characteristics of the think tank leaders or the think tanks' administrative linkages to the authority. "Division level" (*chuji*) is used as the medium line. In all survey samples, 18.0 percent of think tanks are at administrative levels higher than the division level, where as another 18.0 percent are at levels lower than the division level. Comparatively, 25 percent of government-sponsored think tanks are at administrative levels higher than the division level, whereas only 8.7 percent of university-affiliated think tankers are at relatively

higher administrative levels. Finally, I investigate the energy (or time) that these think tank leaders input (or invest) in social activity using four scales. The leaders in the two types of think tanks do not significantly differ in terms of their social activity.

Measuring the Revolving Door

As the key independent variable, revolving door is measured as the career mobility of think tank leaders who have moved from different types of organizations to their current think tanks. The questionnaire specifically asked the think tank leaders about their immediately previous jobs with five options, namely, government agency, university, government-sponsored research institute, media, and others. Given that only a few respondents selected "media," "others," or "missing," I combine these respondents under the category "non-governmental or media sectors." I then identify 4×2 types of career mobility for all think tank leaders as shown in Table 2.

Table 2 about here

Panel A shows that a leader in a government-sponsored think tank has not experienced revolving door (=0) if his/her immediate previous job is at a "research institute," and a leader in a university-affiliated think tank has not experienced revolving door (=0) if his/her immediate previous job is at a "university." The think tank leaders in other cases have experienced revolving door (=1). Three directions of revolving door are defined for either type of think tanks. For the government-sponsored think tanks, I identify the revolving doors of "Gov. Agency –

Gov.-Sponsored TT," "University – Gov.-Sponsored TT," and "Non-Gov. – Gov.-Sponsored TT." For the university-affiliated think tanks, I identify the revolving doors of "Non-Gov.–University TT," "Government Institution–University TT," and "Non-Gov.–University TT." Therefore, 49.3 percent of the think tank samples in Panel B have leaders who have experienced revolving door. Moreover, revolving door cases are dominant in government-sponsored think tanks because most leaders of university-affiliated think tanks have previously served as university professors.[3]

Measuring Influence

Think tanks exert their influence through either their direct connection with policy making or their long-term channel to public opinion (Leeson, Ryan and Williamson, 2012). I employ the same indicator system of Zhu (2009; 2011), in which three levels of sub-influences, namely, "*decision maker influence*," "*academic influence*," and "*public media influence*," are observed, and two indexes of results for influential activities, such as "literal" (A) and "non-literal" (B) activities, are selected in each level. Panel A in Table 3 provides the 3×2 indicator matrices for the influence of China's think tanks. I merge the six influence indexes in two steps, employ the factor analysis method to define the three levels of sub-influences, and obtain the total influence factors of each institute.

Table 3 about here

[3] Table 2 indicates that the selection bias for think tankers who experience revolving door may be disputable. To address such bias, I conduct PSM to check the robustness in the empirical study.

Panel B in Table 3 presents the factor analyses results on think tank influence. Chinese think tanks are generally not very active, with one think tank only having less than 10 activities. The commentaries of government leaders are significantly rarer than the other indexes of influence. Therefore, despite the number of internal reports that a think tank submits to the government, government leaders rarely provide feedback, such as commentaries, to such reports. Government-sponsored think tanks also have advantages in decision maker influence, and university-affiliated think tanks have advantages in academic influence. Moreover, university-affiliated think tanks are closely as influential as government-sponsored think tanks in public media influence and total influence.

Measuring Personal Social Networks

I measure the size of personal networks of think tank leaders. The questionnaire divided personal networks into four subnetworks with the following questions:

(1) "How many officials at or above the provincial/ministerial level are you acquainted with?"

(2) "How many officials at the bureau level are you acquainted with?"

(3) "How many other ordinary officials and leaders of other sectors are you acquainted with?"

(4) "How many persons from the press and media units are you acquainted with?"

The lowest requirement, “be acquainted with,” indicates that a government official can talk with an acquaintance in their second meeting. Given that a think tank leader cannot exactly count how many officials at each level s/he is acquainted with, I simplified the questions and divided the size of networks according to the number of persons within them into five grades, namely, fewer than 10 persons, 20 to 50 persons, 50to 100persons, 100 to 200 persons, and more than 200 persons. I then selected the median values from the feedback data and coded them as 5, 30, 75, 150, and 200.

The experts in China’s think tanks often hold several part-time memberships in other social organizations and may serve as part-time professors, honorary members of the directorate of enterprises, members of the editorial board of academic journals, or members of social intellectual organizations. The questionnaire designed the following questions to measure two kinds of member identities that think tank leaders may assume when not performing their social activities:

(1) “How many social or academic part-time positions do you hold aside from your present job?”

(2) “How many social organizations have you joined outside of your present institute?”

In Panel C in Table 3, I divided personal network indexes into *network size* of social ties and *social organization* memberships, and then conducted factor analyses that ultimately coalesced into one factor of personal *social networks* of think tank leaders. The descriptive statistics of the personal social networks of think tank leaders

show that the leaders of university-affiliated think tanks are relatively advantageous in personal social networks. Given that the leaders in the two types of think tanks do not significantly differ in terms of energy input in social activity (Table 1), the leaders of university-affiliated think tanks are more efficient in building personal social networks than those of government-sponsored think tanks.

Empirical Results

Effects of revolving door on think tank influence

Table 4 reports the estimates of think tank influence from ordinary least square (OLS) regression models. As shown in previous research, two components of the personal social networks of think tank leaders, namely, size of personal social networks and membership of social organizations, strongly contribute to decision maker influence, public media influence, and total influence. Statistical results of control variables confirm the empirical findings of Zhu (2009; 2011) who argues that expert knowledge, administrative linkage (measured by the administrative levels), and personal networks as the key factors that determine the influence of think tanks on the Chinese policy process.

Table 4 about here

The regression models in Table 4 show that revolving door does not significantly contribute to each index of influence of think tanks. The revolving door from

non-governmental sectors to government-sponsored think tanks is the only direction to exert a significant influence. However, such direction negatively affects think tank influence. In sum, the classic theoretical prediction that revolving door helps enhance the influence of think tanks is inapplicable in the Chinese politically-embedded knowledge regime.

Effects of revolving door on think tank revenue

Despite not having significant contributions to think tank influence, does revolving door help think tanks obtain revenue? Table 5 reports the effects of revolving door on think tank revenue. First, the personal social networks of think tank leaders do not significantly contribute to the revenue of their organizations. Second, the administrative linkages, which are measured by the administrative levels of the think tanks, are effective in enhancing organizational revenue. As proven by Zhu (2009), government-sponsored think tanks rely more on their administrative linkages than on their peer university-affiliated think tanks. Third, the first to third columns of Table 5 show that revolving door is insignificantly correlated with think tank revenue in all the regression models of all samples. This result remains true if all samples are split into the two sub-groups in the fifth and seventh columns of the same table. Even if the directions of revolving door are used as the independent variables in the sixth and eighth columns, none of these directions can help either type of think tanks

receive revenue. In sum, our empirical findings disprove the traditional belief that revolving door has positive effects on the revenue of Chinese think tanks.

Table 5 about here

Effects of revolving door on personal social networks

Some may argue that revolving door does not contribute to the influence and revenue of think tanks because career mobility, as a characteristic of a single think tanker, is insufficiently strong to affect the organizational features of a think tank. In this section, I further test the effects of career mobility on the individual-level social networks of think tankers.

Table 6 shows that revolving door significantly negatively affects the personal social networks of think tank leaders. When the total "social networks" are split into the "network size" of social ties and "social organization" memberships, revolving door significantly negatively affects network size and insignificantly negatively affects social organization memberships. By exploring the effects of each revolving door direction on the personal social networks of think tank leaders, I determine that almost all directions negatively contribute to all three dependent variables. Particularly, three directions of career mobility from different sectors to government-sponsored think tanks significantly negatively affect the total factors of personal social networks. Similar results will be observed for various directions from career mobility to university-affiliated think tanks if a huge amount of samples are

included in our survey. Therefore, contrary to the traditional predictions from organizational theories, I find that the revolving door of think tank leaders has significant negative effects on their establishment of personal social networks.

Table 6 about here.

Heterogeneous effects of revolving door

I further examine whether the negative effects of revolving door on personal social networks are heterogeneous across different individual and organizational features. To explore the potential heterogeneous effects, the effects of revolving door depending on the various characteristics of think tank leaders and organizations are estimated in the regression models.

Table 7 about here.

Table 7 reports the estimated potential heterogeneous effects of revolving door on the personal social networks of think tank leaders, with additional interaction terms between revolving door and seven individual and organizational features. Only the interaction term between revolving door and overseas educational background has significant negative contributions to social network building, which indicates that if revolved think tankers have obtained their educational degrees from overseas, then they will have even poorer social network resources than those who have never studied overseas. Nevertheless, all other interaction terms with individual and organizational features insignificantly affect the social network building of think tank

leaders. Specifically, regardless of the organizational type, administrative level, educational background, and research experience of think tankers, revolving door has homogeneous negative effects on personal social networks.

Identification after reducing selection bias

The identification of the casual mechanism is often hindered by selection bias because the treatment is often not randomly distributed among people (Rosenbaum, 2002). In this research, whether a think tank leader has experienced revolving door may result from self-selection. I conduct PSM to draw highly effective causal inferences and to overcome the selection bias (Stuart, 2010)[4].

Table B.1 in the appendix presents the first step of propensity score estimation with logistic regression, which predicts the probability for a leader of a think tank to be selected from the treatment group (revolving door) than from the control group. A set of observed individual and organizational covariates are included in the regression model. First, the longer history of a think tank after a leader joins the organization[5], the more likely this leader has experienced cross-sectoral career mobility. Second, a think tank leader with a high educational background (Ph.D. or master's degree) has a low tendency to move from cross-sectoral organizations. Third, a think tank leader

[4] PSM is not a panacea for the selection bias problem because matching methods cannot deal with the unobserved covariates and unrecognized systematic differences between the control and treatment groups (Rosenbaum 2002). I conduct PSM to complement the robustness check in my empirical studies.

[5] S/he may not immediately become an organizational leader after moving in from the outside.

with previous work experience in a university tends not to rotate jobs. (Table B.1 is in Appendix B.)

In the second step, the cases are matched through kernel matching, which is among the most widely employed matching methods (Heckman, Ichimura, and Todd 1998; Smith and Todd 2005). To test the effectiveness of the matching procedure, Figure B.1 shows the covariate balance of the matched and unmatched pre-intervention variables for think tank leaders who have and have not experienced revolving door. The covariate bias of the pre-intervention variables has been significantly reduced after matching. (Figure B.1 is in Appendix B.)

Table 8 about here

Table 8 reports the estimated average treatment effect (ATE) of the revolving door of think tank leaders on all dependent variables, including think tank influence, revenue, and personal social networks. First, the treatment of revolving door has no significant effects on the indicators of think tank influence regardless whether the samples have been matched. This result confirms that the regression models in Table 4 are robust. Second, before matching, the think tanks with leaders who have experienced revolving door have significant advantages in obtaining revenue. However, after matching, the difference between the treatment and control groups disappears. The regression models in Table 5 are proven to be robust. This finding

rejects the superficial observation that revolving door can help think tanks obtain additional revenue. As such, think tanks with revolving door leaders are apparently richer than other think tanks not because the revolving door leaders have brought additional financial resources, but because richer think tanks are more attractive to social elites who are previously working in different sectors. Third, Table 8 reports that the treatment of revolving door has significant negative effects on various factors of social networks, including network size of personal ties, social organization memberships, and total social network resources, even when selection bias is addressed after matching. Therefore, the matching procedure confirms the regression results in Table 6.

Conclusion

Revolving door has traditionally been regarded as a positive factor for think tank performance. Nevertheless, this empirical study contends that revolving door does not contribute to the influence and revenue of Chinese think tanks. Moreover, revolving door significantly negatively affects the personal social network building of think tank leaders. These empirical findings contradict with the existing theories on the effects of cross-sectoral career mobility. Because in the Chinese society with Confucian culture and "bureaucracy-oriented" tradition, intellectual and political elites are usually reluctant to leave their working organizations to think tanks, unless

they refuse to acknowledge the previous organizational value, have loose interpersonal network connections, lose their potentials to be promoted in the establishment further or are about to retire. Moreover, after think tankers have experienced revolving door, career mobility undermines their personal social network building further. These two aspects of explanation reveal that there exists potential selection bias of revolving door of think tankers as treatment variable. However, these regressive results above are robust after eliminating bias due to individual and organizational level characteristics with propensity matching techniques.

The article conceptualizes the politically-embedded knowledge regime to visualize a distinctive policy-making and consultation system in which political power is deeply embedded in the administrative and personal networks between bureaucratic decision makers and their professional consultants. Unlike the knowledge regime in the United States wherein party competition and rotation formed the main theme of political life, Chinese think tanks are cultivated in the politically-embedded knowledge regime, where they rely more on their administrative linkages and personal networks to the decision makers and other social elites rather than on public debate to achieve influence. Chinese think tank leaders who have experienced revolving door do not necessarily have significant advantages in building the influence of their respective think tanks. Revolving door may even hurt these think tankers by preventing them from building social networks that are essential in achieving influence. Therefore, it should be aware that the developmental experiences

of American think tanks may not be as effective when applied in other countries with different knowledge regimes.

A series of researches can further deepen our understanding on the effect of revolving door on think tanks based on this article. First, the empirical data used in the article were collected through a nationwide survey over ten years ago. The past decade has witnessed rapid development of think tank community in China. Especially since 2013 when the Chinese top leadership officially promoted the establishment of “New Style Think Tanks with Chinese Characteristics”, many new think tanks, most of which are non-governmental think tanks registered as enterprises and university affiliated think tanks, have been founded. Therefore, new systematic data of Chinese think tanks need to be collected by academia. Second, this research does not consider the regional variations and differences among policy fields, which can be further explored. Third, the current article has simplified the research focusing only on revolving door of think tank leaders. But many think tank experts who are not organizational leaders have also experienced cross-sectoral career mobility. Therefore, whether our empirical results in this paper have underestimated the effects of revolving door needs to be further scrutinized.

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Table 1. Descriptive statistics of the think tank samples

	Total TT samples	Government-sponsored TT	University-affiliated TT
Number	288	161	127
Panel A: Organizational features			
# of researchers	30.6	38.9	20.4
# of part-time researchers	8.6	7.6	9.9
Organizational personnel (=researchers+0.5 part-time)	34.8	42.4	25.3
Revenue (10,000RMB)	305.5	488.0	75.2
	8.78	11.51	2.97
Research expenditure(10,000RMB)	179.0	283.8	43.4
	5.14	6.69	1.72
Year of establishment	1989.0	1984.1	1995.2
Panel B: Characteristics of think tank leaders			
Education			
Ph.D. degree (percent)	31.6	21.1	44.9
Master's degree (percent)	26.0	21.7	31.5
Bachelor's degree or below (percent)	42.4	57.2	23.6
Study overseas (percent)	12.8	9.3	17.3
# of years working in the TT	9.67	11.03	7.80
Administrative level			
Over the division level (percent)	18.0	25.4	8.7
At the division level (percent)	64.0	62.2	66.1
Below the division level (percent)	18.0	12.4	25.2
Energy input in social activity (1, 2, 3, or 4)	2.29	2.31	2.27

Table 2. Measuring revolving door: Previous jobs and current think tanks

Panel A: Matrix of mobility	Immediately previous jobs			
Current think tanks	Government agency	University	Research institute	Non-governmental or media sectors
Government-sponsored	Yes=51	Yes=44	No=34	Yes=32
University-affiliated	Yes=5	No=112	Yes=6	Yes=4
Panel B: Frequency of mobility	Revolving Door			
	Yes		No	
Total think tanks	142 (49.3 percent)		146 (50.7 percent)	
Government-sponsored	127		34	
University-affiliated	15		112	

Table 3. Measures and descriptive statistics of think tank influence and social networks

	All samples		Government-sponsored TTs		University-affiliated TTs	
Panel A: Influence of China's think tanks	Mean	Std. D.	Mean	Std. D.	Mean	Std. D.
Decision maker influence						
A: Commentaries of government leaders[a] on the think tank	1.13	3.78	1.56	4.92	0.60	1.27
B: Invitations to attend government seminars	6.15	7.23	6.61	7.36	5.58	7.06
Academic influence						
A: Think tank papers from China Core Journal[b]	6.00	21.3	3.07	10.1	9.66	29.7
B: Invitations to national academic conferences	5.19	5.35	5.11	5.82	5.29	4.72
Public media influence						
A: Press reports that cite the attitude of the think tank	6.55	16.0	7.71	20.4	5.10	7.13
C: Press interviews	5.79	8.65	6.36	10.3	5.09	5.98
Panel B: Factor analyses of influence [c]	Mean	Std. D.	Mean	Std. D.	Mean	Std. D.
I_1**: Standardized factor of decision maker influence**	0.00	1.00	0.06	1.00	-0.07	0.99
I_2**: Standardized factor of academic influence**	0.00	1.00	-0.14	0.47	0.18	1.39
I_3**: Standardized factor of public influence**	0.00	1.00	0.08	1.27	-0.10	0.48
I **: Standardized factor of total influence**	0.00	1.00	0.18	1.07	-0.02	0.91
Panel C: Factor analyses of social networks [d]	Mean	Std. D.	Mean	Std. D.	Mean	Std. D.
***N1*: Network size**	0.00	1.00	-0.03	1.02	0.03	0.97
***N2*: Social organization**	0.00	1.00	-0.12	1.05	0.15	0.91
***N*: Total social networks**	0.00	1.00	-0.11	1.00	0.13	0.98

Note:[a] The commentaries (*pishi*),written comments, and remarks that Chinese government leaders place on a report indicate that these leaders consider such report as fairly important and worthy be attended to, circulated, or adopted. Therefore, the number of these comments may indicate the decision maker influence of think tanks in China.

[b] The China Core Journal (*Zhongguo hexin qikan*, http://localsev.lib.pku.edu.cn/cjc/) is an authoritative Chinese academic journal index that is widely used in China. The academic journals listed in this journal satisfy a comprehensive indexed standard based on seven indicators of influences. Therefore, the number of publications that are listed in this journal may indicate the academic influence of a think tank. I coded the number of articles that each think tank published in the China Core Journal between 2002 and 2003 by searching the China National Knowledge Infrastructure database (http://www.cnki.net).

[c]: I employed principal component analysis on the influence variables.

[d]: I employed the principal component analysis on the social network variables.

Table 4. Effects of revolving door on think tank influence

	Total Influence	Total Influence	Decision Maker Inf.	Decision Maker Inf.	Academic Inf.	Academic Inf.	Public Media Inf.	Public Media Inf.
Revolving door	**-0.116**		**-0.131**		**-0.060**		**-0.053**	
	(0.167)		**(0.181)**		**(0.131)**		**(0.176)**	
Gov. agency- gov.-sponsored TT		**-0.232**		**-0.182**		**-0.013**		**-0.234**
		(0.226)		**(0.273)**		**(0.156)**		**(0.240)**
University - gov.-sponsored TT		**-0.135**		**-0.212**		**-0.198**		**0.100**
		(0.293)		**(0.293)**		**(0.147)**		**(0.395)**
Non-gov. - gov.-sponsored TT		**-0.394***		**-0.151**		**-0.061**		**-0.532****
		(0.204)		**(0.276)**		**(0.141)**		**(0.209)**
Gov. agency – university TT		**-0.378**		**-0.231**		**-0.397***		**-0.196***
		(0.235)		**(0.306)**		**(0.234)**		**(0.110)**
Public institution – university TT		**0.270**		**-0.087**		**-0.023**		**0.352**
		(0.356)		**(0.134)**		**(0.357)**		**(0.380)**
Non-gov. –university TT		**0.578**		**0.253**		**0.436**		**0.508**
		(0.442)		**(0.194)**		**(0.522)**		**(0.348)**
Personal social networks								
Network size	0.176***	0.187***	0.247***	0.249***	0.046	0.046	0.047	0.064
	(0.062)	(0.061)	(0.070)	(0.072)	(0.050)	(0.050)	(0.052)	(0.050)
Social organization	0.215***	0.208***	0.152**	0.150**	-0.001	-0.005	0.241**	0.230*
	(0.078)	(0.079)	(0.069)	(0.070)	(0.047)	(0.050)	(0.118)	(0.119)
Individual Controls								
Social Activity	0.202**	0.227***	0.257***	0.270***	0.071	0.094	0.067	0.086
	(0.078)	(0.082)	(0.087)	(0.091)	(0.064)	(0.067)	(0.073)	(0.078)
Ph.D.	0.615***	0.583***	0.432**	0.437**	0.288*	0.330*	0.496**	0.401**
	(0.183)	(0.169)	(0.199)	(0.199)	(0.164)	(0.173)	(0.196)	(0.167)
Master	0.284	0.276	0.129	0.129	0.052	0.067	0.357	0.332
	(0.183)	(0.175)	(0.135)	(0.135)	(0.100)	(0.098)	(0.266)	(0.253)
Study Overseas	-0.178	-0.227	-0.276	-0.306	-0.117	-0.161	0.034	0.011
	(0.168)	(0.161)	(0.215)	(0.225)	(0.140)	(0.129)	(0.154)	(0.147)
Work Experiences (Year of work)	0.015	0.018	0.014	0.014	0.007	0.008	0.010	0.015
	(0.010)	(0.011)	(0.009)	(0.009)	(0.010)	(0.011)	(0.015)	(0.016)
Organizational Controls								
Over Division level	0.510**	0.499**	0.250	0.251	0.218	0.231	0.539	0.509
	(0.256)	(0.251)	(0.171)	(0.172)	(0.183)	(0.187)	(0.356)	(0.338)
Under Division level	-0.265**	-0.307***	-0.369***	-0.397***	-0.120	-0.166**	-0.033	-0.049
(Division level as reference)	(0.108)	(0.105)	(0.118)	(0.127)	(0.092)	(0.084)	(0.100)	(0.100)
Organizational Personnel	-0.002	-0.002	-0.002*	-0.002*	0.000	-0.000	-0.001	-0.001
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.001)	(0.001)
Research Expenditure	0.000	0.000*	0.000***	0.000***	0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
History (Year of Establishment)	0.003	0.004	0.011	0.011	-0.013	-0.013	0.003	0.005
	(0.007)	(0.007)	(0.008)	(0.008)	(0.008)	(0.008)	(0.007)	(0.008)
Public Institution Think Tanks	0.261	0.374	0.340	0.392	-0.389***	-0.363**	0.410**	0.532**
	(0.190)	(0.237)	(0.219)	(0.298)	(0.130)	(0.150)	(0.186)	(0.245)
Constant	-6.714	-9.713	-22.095	-22.321	25.024	24.916	-6.941	-11.322
	(13.914)	(14.075)	(15.938)	(15.999)	(16.034)	(15.701)	(15.032)	(15.325)
Adjusted R^2	0.247	0.246	0.210	0.195	0.0893	0.0829	0.105	0.116
N	227	227	228	228	227	227	228	228

Notes: The dependent variables are the factors of total influence, decision maker influence, academic influence, and public media influence.

The robust standard errors are enclosed in parentheses. *: P<0.1, **: P<0.05, and ***: P<0.01.

Table 5. Effects of revolving door on think tank revenue

	(1) All Samples	(2) All Samples	(3) All Samples	(4) All Samples	(5) Government-sponsored TTs	(6) Government-sponsored TTs	(7) University-affiliated TTs	(8) University-affiliated TTs
Revolving door	**0.155**	**0.172**	**0.034**		**0.039**		**-0.052**	
	(0.213)	**(0.204)**	**(0.257)**		**(0.299)**		**(0.312)**	
Gov. agency - gov.-sponsored TT				**0.344**		**0.183**		
				(0.288)		**(0.348)**		
University - gov.-sponsored TT				**-0.157**		**-0.333**		
				(0.323)		**(0.388)**		
Non-gov. - gov.-sponsored TT				**0.596****		**0.457**		
				(0.249)		**(0.325)**		
Gov. agency –university TT				**-0.706**				**-0.674**
				(0.679)				**(0.683)**
Public institution –university TT				**0.184**				**0.076**
				(0.468)				**(0.408)**
Non-gov. –university TT				**0.301**				**0.462**
				(0.342)				**(0.375)**
Social Network Controls								
Network Size	0.215**	0.143	0.211**	0.133	0.125	0.108	0.137	0.155
	(0.096)	(0.090)	(0.096)	(0.090)	(0.131)	(0.130)	(0.133)	(0.137)
Social Organization	0.045	0.065	0.051	0.079	0.136	0.144	-0.106	-0.116
	(0.082)	(0.078)	(0.082)	(0.080)	(0.096)	(0.098)	(0.160)	(0.163)
Individual Controls								
Social Activity	0.268*	0.249	0.259	0.264*	0.187	0.185	0.399*	0.448*
	(0.159)	(0.158)	(0.160)	(0.160)	(0.222)	(0.216)	(0.231)	(0.242)
Ph.D.	0.442*	0.400*	0.489*	0.545**	0.261	0.504	0.273	0.297
	(0.245)	(0.231)	(0.253)	(0.249)	(0.395)	(0.413)	(0.348)	(0.356)
Master	0.058	0.162	0.094	0.207	0.396	0.412	0.086	0.093
	(0.247)	(0.235)	(0.251)	(0.242)	(0.341)	(0.349)	(0.385)	(0.388)
Study Overseas	0.506**	0.574***	0.520**	0.510**	0.615*	0.508	0.699**	0.614**
	(0.229)	(0.210)	(0.230)	(0.206)	(0.366)	(0.344)	(0.292)	(0.299)
Work Experiences (Year of work)	0.001	0.013	0.002	0.013	0.007	0.005	0.013	0.019
	(0.018)	(0.017)	(0.019)	(0.017)	(0.022)	(0.022)	(0.040)	(0.039)
Organizational Controls								
Over Division level	1.464***	1.231***	1.444***	1.254***	1.459***	1.506***	0.302	0.257
	(0.261)	(0.284)	(0.264)	(0.289)	(0.356)	(0.354)	(0.498)	(0.502)
Under Division level	-0.608**	-0.494**	-0.582**	-0.524*	-0.424	-0.489	-0.423	-0.481
(Division level as reference)	(0.262)	(0.250)	(0.266)	(0.273)	(0.420)	(0.434)	(0.350)	(0.376)
Organizational Personnel	-0.048***	-0.031**	-0.045***	-0.031**	-0.027*	-0.027*	-0.031	-0.028
	(0.014)	(0.014)	(0.014)	(0.014)	(0.016)	(0.016)	(0.032)	(0.031)
History (Year of Establishment)		0.008**		0.008**	0.007**	0.007**	0.026***	0.025***
		(0.004)		(0.003)	(0.003)	(0.003)	(0.007)	(0.008)
Public Institution Think Tanks			0.238					
			(0.249)					
Constant	97.847***	63.438**	92.126***	63.548**	55.954*	57.315*	63.888	58.211
	(28.534)	(27.332)	(28.919)	(28.001)	(31.715)	(32.941)	(64.014)	(62.141)
Adjusted R^2	0.346	0.400	0.345	0.405	0.406	0.418	0.283	0.280
N	247	244	247	244	137	137	107	107

Notes: Dependent variable is logged revenue. The first four columns are the models of all think tank samples, the fifth and sixth columns are the models of government-sponsored think tank samples, and the seventh and eighth columns are the models of university-affiliated think tank samples.

The robust standard errors are enclosed in parentheses. *: P<0.1, **: P<0.05, and ***: P<0.01.

Table 6. Effects of revolving door on personal social networks

	Social Networks	Social Networks	Social Networks	Network Size	Network Size	Social Organization	Social Organization
Revolving door	**-0.389*** **	**-0.363** **		**-0.327** **		**-0.230**	
	(0.131)	**(0.158)**		**(0.147)**		**(0.180)**	
Gov. agency - gov.-sponsored TT			**-0.289***		**-0.098**		**-0.261**
			(0.161)		**(0.163)**		**(0.186)**
University - gov.-sponsored TT			**-0.383***		**-0.326***		**-0.263**
			(0.197)		**(0.195)**		**(0.181)**
Non-gov. - gov.-sponsored TT			**-0.508** **		**-0.278**		**-0.505*** **
			(0.199)		**(0.245)**		**(0.176)**
Gov. agency – university TT			**-0.167**		**-0.126**		**-0.133**
			(0.300)		**(0.309)**		**(0.295)**
Public institution – university TT			**-0.906*** **		**-0.906*** **		**-0.547** **
			(0.211)		**(0.180)**		**(0.244)**
Non-gov. – university TT			**-0.132**		**-0.436**		**0.248**
			(0.530)		**(0.265)**		**(0.630)**
Individual Controls							
Social Activity	0.491***	0.492***	0.489***	0.292***	0.279***	0.489***	0.497***
	(0.108)	(0.107)	(0.109)	(0.091)	(0.093)	(0.128)	(0.129)
Ph.D.	0.104	0.094	0.147	0.311*	0.380**	-0.070	-0.050
	(0.147)	(0.159)	(0.155)	(0.165)	(0.170)	(0.159)	(0.147)
Master	-0.006	-0.015	0.015	0.188	0.215	-0.135	-0.113
	(0.130)	(0.133)	(0.132)	(0.148)	(0.149)	(0.132)	(0.129)
Study Overseas	0.355	0.351	0.354	0.054	0.061	0.485**	0.482**
	(0.215)	(0.217)	(0.215)	(0.195)	(0.200)	(0.230)	(0.221)
Work Experiences (Year of work)	0.007	0.007	0.009	-0.002	-0.000	0.013	0.016
	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.009)	(0.010)
Organizational Controls							
Over Division level	0.448***	0.452***	0.461***	0.576***	0.588***	0.157	0.161
	(0.171)	(0.170)	(0.172)	(0.165)	(0.161)	(0.168)	(0.174)
Under Division level	-0.382***	-0.387***	-0.404***	-0.163	-0.179	-0.452***	-0.475***
(Division level as reference)	(0.123)	(0.124)	(0.131)	(0.159)	(0.166)	(0.110)	(0.120)
History (Year of Establishment)	0.003	0.002	0.003	-0.006	-0.006	0.009	0.011
	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)	(0.007)
Public Institution Think Tanks		-0.053		0.097		-0.125	
		(0.180)		(0.163)		(0.208)	
Constant	-6.209	-4.813	-7.502	11.292	10.866	-18.844	-21.976
	(13.783)	(13.874)	(13.968)	(15.268)	(14.065)	(13.529)	(14.180)
Adjusted R^2	0.215	0.212	0.254	0.106	0.105	0.193	0.189
N	254	254	254	260	260	259	259

Notes: The dependent variables in the first three columns are the factors of the total "social networks" of think tank leaders, those in the fourth and fifth columns are the factors of "network size," and those in the last two columns are the factors of "social organization" memberships.

The robust standard errors are enclosed in parentheses. *: P<0.1, **: P<0.05, and ***: P<0.01.

Table 7 Heterogeneous effects of revolving door on social networks

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Revolving door	**-0.477****	**-0.370****	**-0.421****	**-0.268***	**-0.433****	**-0.252***	**-0.396***
	(0.225)	**(0.153)**	**(0.177)**	**(0.162)**	**(0.181)**	**(0.147)**	**(0.239)**
×Organizational type	**0.177**						
	(0.308)						
×Over division level		**0.041**					
		(0.418)					
×Below division level			**0.307**				
			(0.246)				
×Ph.D.				**-0.280**			
				(0.283)			
×Master					**0.297**		
					(0.244)		
×Overseas						**-0.857***	
						(0.449)	
×Year of work							**0.003**
							(0.016)
Organizational controls	Y	Y	Y	Y	Y	Y	Y
Individual controls	Y	Y	Y	Y	Y	Y	Y
Constant	-4.312	-4.931	-4.904	-5.839	-5.000	-2.518	-4.543
	(13.785)	(14.217)	(13.919)	(13.662)	(13.840)	(13.872)	(14.152)
Adjusted R^2	0.210	0.209	0.212	0.213	0.213	0.229	0.209
N	254	254	254	254	254	254	254

Notes: The dependent variables in all columns are the factors of the total "social networks" of think tank leaders. The independent variables include revolving door and its interaction terms with organizational and individual variables. The organizational characteristics that are not shown in the table include organization type, over division level, below division level, and year of establishment. The individual features of think tank leaders that are not shown in the table include education, number of years working in the think tank, and social activity.

The robust standard errors are enclosed in parentheses. *: P<0.1, **: P<0.05, and ***: P<0.01.

Table 8. Average treatment effects of revolving door (Kernel estimation)

Variable		Treated	Controls	Difference	S.E.	t-stat
Total Influence	Unmatched	-0.002	0.047	-0.050	0.132	-0.37
	Matched	-0.002	0.126	-0.128	0.172	-0.74
Decision Maker Influence	Unmatched	-0.029	0.039	-0.068	0.131	-0.52
	Matched	-0.029	0.140	-0.169	0.185	-0.91
Academic Influence	Unmatched	-0.026	0.079	-0.105	0.137	-0.77
	Matched	-0.026	-0.036	0.010	0.175	0.05
Public Media Influence	Unmatched	0.036	-0.011	0.048	0.133	0.36
	Matched	0.036	0.108	-0.072	0.161	-0.45
Revenue (Logged)	Unmatched	4.233	3.643	0.590	0.220	2.68***
	Matched	4.233	3.981	0.253	0.281	0.9
Social Networks (total)	Unmatched	-0.195	0.222	-0.417	0.125	-3.32***
	Matched	-0.195	0.251	-0.445	0.179	-2.48***
Network Size	Unmatched	-0.118	0.139	-0.257	0.127	-2.03**
	Matched	-0.118	0.230	-0.348	0.173	-2.01**
Social Organization	Unmatched	3.124	4.443	-1.319	0.387	-3.40***
	Matched	3.124	4.251	-1.127	0.564	-2.00**

Does "Revolving Door" Matter?

Politically-Embedded Knowledge Regime and the Effects of Career Mobility on Think Tanks in China

(Online Supplementary Materials)

Appendix A: Regional Distribution and Representativeness of the Survey

To examine the representativeness of the survey data, I compared the regional distribution of the samples in the CTTS data with the ones in the official data from MOST (General Office of the MOST 2003)[6]. I indicated the distribution of institutions and researchers in each region in the two datasets. According to the regional distributions of the official and survey data in Figure A.1, the two types of distributions demonstrated high consistency, which indicated that the CTTS samples were highly representative of the regional distribution of the entire country. In Figure A.2, I compared the distributions of the total number of regional researchers in the two datasets. Figure A.2shows that the CTTS is representative of the distribution of researchers in each region. In sum, the CTTS data have a high degree of matching with the official data.

[6] The official data are taken from the registered soft science research institutes in 2003 and provided by the Division of Soft Science at MOST. Among all 1634 registered soft science research institutes, 1124 can be regarded as qualified think tanks. However, I cannot extract think tank organization data from the official statistical data of registered soft science research institutes. Therefore, I compare the data of 288 surveyed think tanks with the official data of all 1634 soft science research institutes.

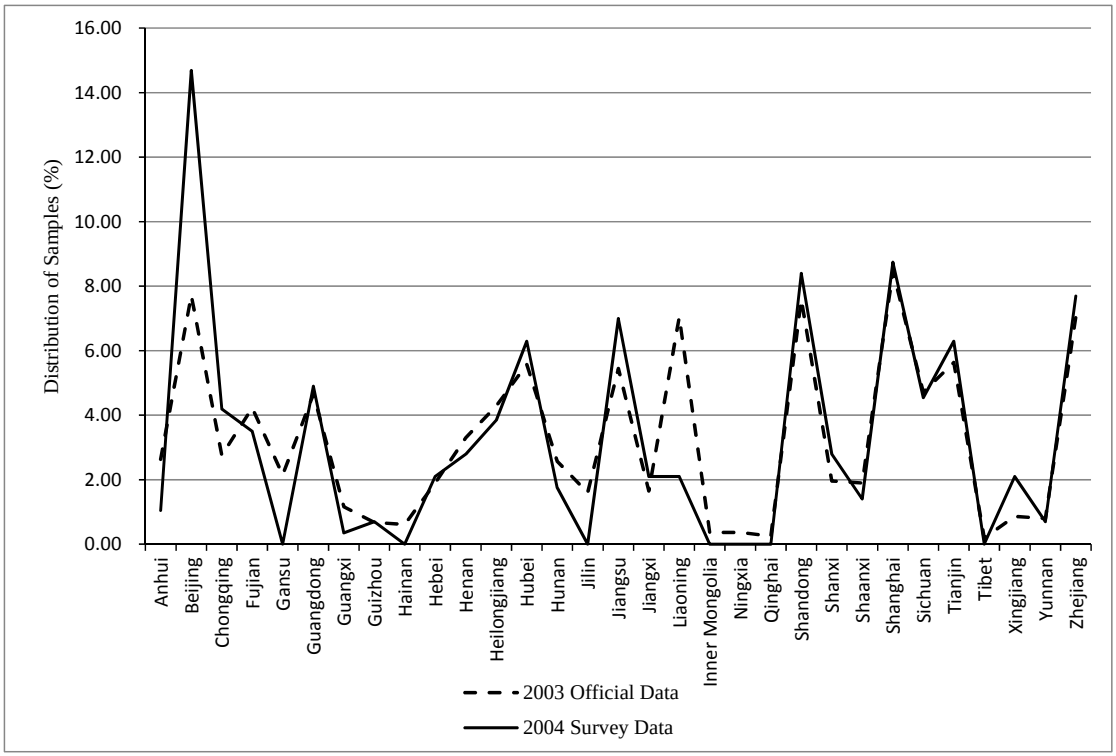

Figure A.1. Comparison of regional samples between official and survey data

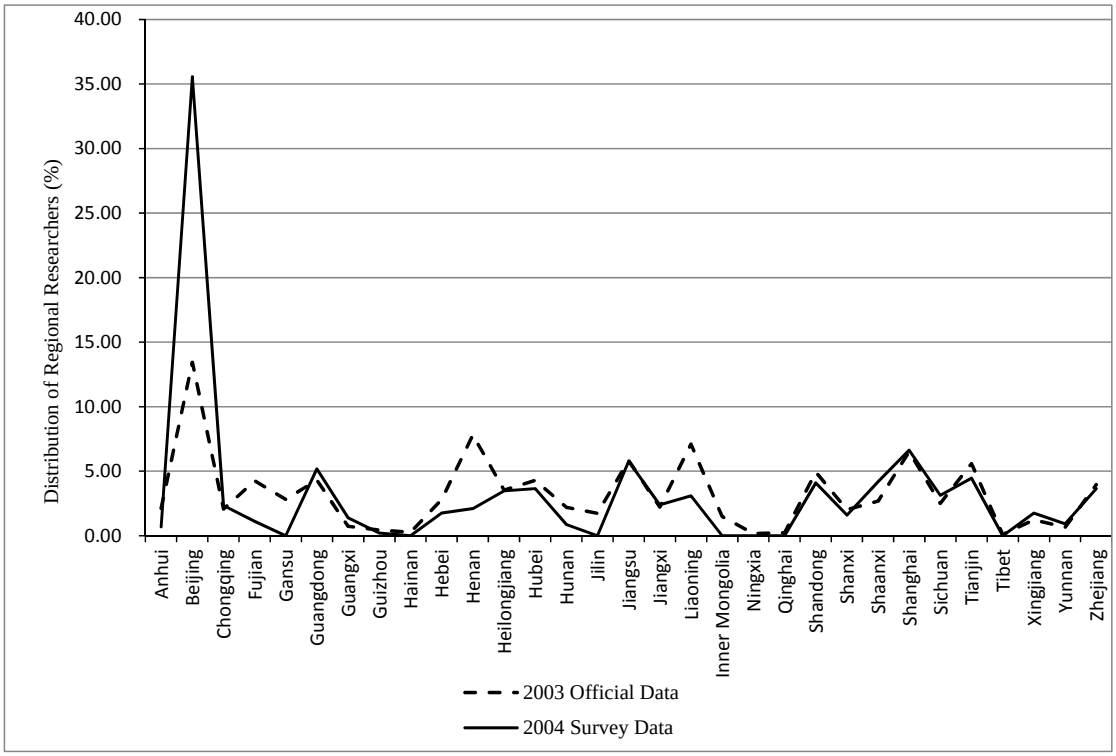

Figure A.2. Comparison of regional researchers between official and survey data

Appendix B: First Two Steps of Propensity Score Matching

Table B.1. First-stage logistic regression results for propensity score estimation

	REVOLVING DOOR?	
	Coef.	Std. Err.
Over division level	0.596	0.416
Below division level	-0.362	0.413
Organizational year by job rotation	0.042**	0.018
Ph.D.	-0.664*	0.375
Master's degree	-0.659*	0.374
Study overseas	-0.516	0.496
Social activity	-0.007	0.223
Previous working experience in university	-1.727***	0.313
Constant	1.134*	0.590
Other Values		
log likelihood	-132.3	
LR chi2(10)	72.18	
Prob> chi2	0.000	
Pseudo R2	0.214	
N	243	

Notes: Two new independent variables are introduced. "Organizational year during job rotation" indicates how many years a think tank has been established by the year of the entrance of the leaders moving from other organizations, which equals to "2004–'Year of Establishment'–'Year of work in the think tank'". "Previous working experience in university" indicates whether the think tank leaders have previously worked in universities than in other sectors.

*: P<0.1, **: P<0.05, and ***: P<0.001.

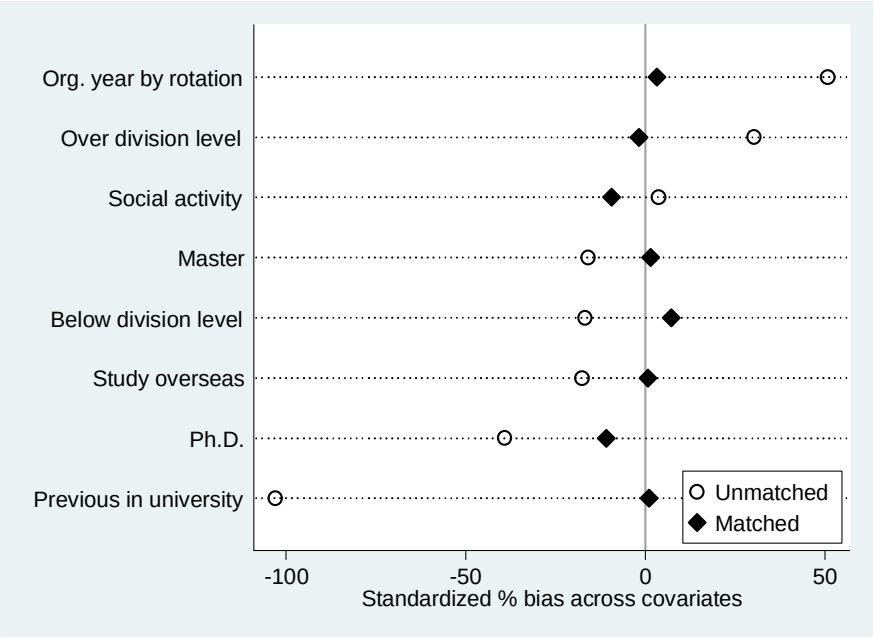

Figure B.1. Covariate balance pre-and post-matching (Kernel estimation)