

Forthcoming in *Entrepreneurship Theory and Practice*

**POLITICAL CONNECTION AND DISCONNECTION:  
STILL A SUCCESS FACTOR FOR CHINESE ENTREPRENEURS**

October, 2019 © Ronald S. Burt\* and Sonja Opper\*\*

\*University of Chicago Booth School of Business, Chicago, IL 60637  
Tel: +1 312-953-4089, [ron.burt@chicagobooth.edu](mailto:ron.burt@chicagobooth.edu)

\*\*Department of Economics, Lund University, Lund, Sweden  
Tel: +46 46-222 7906, [sonja.opper@nek.lu.se](mailto:sonja.opper@nek.lu.se)

ACKNOWLEDGEMENT: Ronald Burt is grateful to the University of Chicago Booth School of Business for financial support during the work reported here. Sonja Opper is grateful to the Marianne and Marcus Wallenberg Foundation for support of this work, to Riksbankens Jubileumsfond for her sabbatical grant, and to the Center for East Asian Studies at the University of Chicago for hosting her as an Associate. We are both grateful to the Jan Wallanders and Tom Hedelius Foundation for the grant to Sonja Opper that funded the fieldwork in China providing the data analyzed here. The text has been improved in response to comments from Bat Batjargal, Mike Peng, and two reviewers for this journal, as well as comments in 2019 presentations at the University of Texas at Dallas School of Management, Xi'an Jiaotong University Institute for Empirical Social Science Research, and at Zhejiang University for a *Management and Organization Review* Frontiers Conference, and the 15<sup>th</sup> International Symposium on Entrepreneurship and Family Business. The network instrument in English is available online: <http://faculty.chicagobooth.edu/ronald.burt/research>.

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**ABSTRACT**

Political connection in China is often tested for correlation with business success and government support under a suspicion that connected entrepreneurs enjoy special favors and protection. Research evidence is mixed. In revisiting the debate on political capital in China, we apply a socially embedded perspective on political connection. To this end we introduce two methodological innovations: (1) We develop a broader measure of political connectedness that covers the continuum from political connection to disconnection. (2) We integrate data on political connection with social network data. Specifically, we explore how the social structure around the individual entrepreneur affects performance above and beyond the often tested association between political ties and performance. We draw two conclusions: (1) The success association with political connection is discontinuous. Advantage is less for entrepreneurs weakly connected politically, but significant additional disadvantage arises for the politically disconnected. (2) The additional is that entrepreneurs disconnected from government show no benefit from having an advantaged business network. The politically connected with an advantaged business network show more prosperous business, higher returns on assets, and more likely survival over time. The politically disconnected show none of these benefits. We caution the entrepreneur who plans to ignore the government.

A broad understanding in research on political connection—whether in developed or emerging economies—is that business leaders with connections have advantages over leaders bereft of connection (Fisman, 2001; Faccio, 2006, 2010). Suspected advantages include all the things a regulatory state can do for business — from legislation on competition, labor, and subsidies, to privileged access for capital and (government procurement) contracts, to privileged treatment with respect to local matters of land, zoning, parking, police, tax, and so on. The broad hypotheses from previous research are that entrepreneurs with political connections should be more successful, and enjoy favorable treatment by government. How much more successful, or favored, is an empirical question. Political connections have greater value when weak or weakly enforced formal institutions facilitate collusion between political and economic actors (Faccio, 2010). It is no surprise that political connections are especially valuable in transition economies, which typically feature hybrid economies with a mix of liberalized markets and traditional (often ad-hoc) elements retaining substantial control over key resources in the hands of a bureaucratic and political elite (Peng, 2001; Li, Meng and Zhang, 2006; Puffer, McCarthy and Boisot, 2010; Walder, 2003).

China is no exception. Over time, reforms have shaped a business environment, in which government retains pervasive control rights over capital, land and real estate markets (Huang, 2008). The state maintains full or partial control over many of the country's large, stock-listed corporations active in the mining, manufacturing and service sectors (Fan, Wong and Zhang, 2007; Chen et al., 2011). The legal system is designed to allow for ad-hoc government interference when deemed necessary (Lubman, 2006). As a result, government officials enjoy substantial discretion over the implementation of rules. Many government offices even have the power to terminate or relocate a firm's production site if business activities are in conflict with government policies or ideological preferences (Li, Meng and Zhang, 2006). In sum, China's business environment is designed to channel scarce resources and privileges to the country's ideologically

avored, politically well-connected and oftentimes (partly) state-controlled corporations, many of which are listed at the country's two stock exchanges in Shanghai and Shenzhen (Allen, Qian and Qian, 2005; Lardy, 2019). For entrepreneurs, strong, ambiguous government involvement in the economy can be expected to affect business success, relations with suppliers and customers (Luo, Yang and He, 2020), and creates its own kind of opportunity for entrepreneurial behavior: In the extreme, Mou Qizhong of Nande Group, for which brokerage across industries via government infrastructure was a core competence — fraught with the danger of shifting opinion about what is politically acceptable — ended in jail when opinion shifted negative (Yang, 2007: Chp. 7; case snippet in Yang, 2004). The government potential to affect business raises two empirical questions: (1) Are political connections a factor predicting the relative success of private businesses in China? (2) Are political connections associated with differential government assistance?

Both questions have attracted a fair amount of research; with mixed results (Du, Guariglia, & Newman, 2015, Ge et al., 2017; Li & Zhang, 2007; Li et al., 2008; Nee & Opper, 2010, 2012; Zhao & Lu, 2016; Zhang et al., forthcoming; Zhou, 2008). Some claim that private entrepreneurs have successfully disconnected from state-controlled markets and can rely for help on informal institutions and networks of like-minded entrepreneurs (Tsai, 2002; Nee & Opper, 2012). A claim that is consistent with the rapid expansion of the private sector to more than 20 million businesses with more than 40 million investors (Fan & Lu, 2019). Others doubt that business success is possible without political connections. China's Hurun List (an annual list of the wealthiest individuals) offers some support—at least when looking at China's very wealthiest entrepreneurs. Lu (2017) calculates that more than 50% of the individuals listed between 2003 and 2012 share a professional background in party, state, military, state-owned enterprises or public institutions, supporting the old narrative of 'cadre entrepreneurs' or

'red capitalists' as China's new entrepreneurial elite (Rona-Tas, 1994; Peng, 2001; Dickson, 2003).

In revisiting both empirical questions, we shift to a network perspective that takes into account the social embeddedness of entrepreneur-government relations. Prior work has focused either on the identification and isolation of distinct political attributes of the entrepreneur or organization or on dyadic ties linking the entrepreneur/organization with political representatives. Other forms of political and social capital did not enter the analysis, thereby silently assuming that individual attributes and dyadic ties operate independently of an entrepreneur's immediate social and political environment. Social network theory suggests otherwise: Political contacts could be strongly connected with other key contacts so as to be embedded in a closed network, which would reinforce the connection, strengthening the flow of influence, knowledge, and trust over the connection (Krackhardt, 1992; Burt, 2005:Chaps. 3-4; Centola & Macy, 2007; Centola, 2010; Tortoriello & Krackhardt, 2010; Burt, Bian, & Opper, 2018). At the other extreme, political contacts could be relatively isolated within an entrepreneur's network, constituting a bridge between the world of business and the world of politics, thereby offering valuable broker advantage to access novel business opportunities. We know that having a large, open business network rich in structural holes is a success factor in China, certainly for entrepreneurs (Batjargal, 2010; Batjargal et al., 2013; Bian & Wang, 2016; Burt & Burzynska, 2017; Burt & Opper, 2017; Zhao & Burt, 2018; Burt, 2019). What we do not know is whether political connection and social structure operate independently, or whether social structure moderates the way entrepreneurs can harvest their political connections for business success and government support.

We introduce two methodological innovations: First, as political connections can be signaled by a whole range of individual attributes and a variety of dyadic ties with government and party officials, we develop a broader measure of connectedness, which conveniently covers a spectrum from extreme disconnectedness to extreme

connectedness. In this way we hope to reduce the risk of false positives or negatives inherent in the use of isolated signals of political connection. Second, we study political connectedness in the context of the social network around an entrepreneur. We are fortunate to have rich data on the networks of key business contacts for a representative sample of 700 entrepreneurs running private enterprises in China's extended Yangtze delta region. The data allow us to locate political contacts within the social network of business contacts around an entrepreneur.

### **WHAT WE KNOW AND DON'T KNOW**

Turning to what we know from previous research about the role of political connections in firm success, it is useful to sort the literature by its empirical strategy. Empirical work either operationalizes connection by measuring the quality of the dyad between entrepreneur/firm and government, or by capturing distinct attributes in the entrepreneur/firm.

#### **Quality of Relations between Entrepreneur and Government**

Some evidence comes from asking business leaders for opinion about their personal connections with government. Peng and Luo (2000) is a widely-cited example in management research. In 1996, Peng and Luo mailed questionnaires to sample heads of state-owned and private businesses and report on 127 completed questionnaires. Responding on seven-point scales from "very little" to "very extensive," heads of business provided three opinions (Peng & Luo, 2000:501): "Please circle the number best describing the extent to which top managers at your firm have utilized personal ties, networks, and connections during the past three years with (1) political leaders in various levels of government; (2) officials in industrial bureaus; and (3) officials in regulatory and supporting organizations such as tax bureaus, state banks, commercial administration bureaus, and the like." The respondent's three opinions are averaged to

measure the strength of the respondent's firm's political connection. The measure (hereafter Peng-Luo Index) has a strong correlation with the firm's market share and return on assets, especially for private enterprises, firms in a service industry, and smaller firms (Peng & Luo, 2000:494-497).

Peng and Luo cite as precedent Xin and Pearce's (1996) widely-cited exploratory study with 1992 data on 32 companies in an interior Chinese city. Xin and Pearce did face-to-face interviews with their respondents, so they were able to use the usual name generator and interpreter items to gather network data. Heads of business were asked to name eight to ten people most valuable to the business. Xin and Pearce (1996:1652-1653) report that relative to heads of state-owned companies in the early 1990s, heads of collective and private enterprises were more likely to cite people for their connection to government. Several years later, Li and Zhang (2007:797) conduct interviews with 184 entrepreneurs leading new technology ventures in Beijing, asking respondent opinion on how the venture is performing relative to competitors, and how much effort goes into cultivating and maintaining good relations with government officials and agencies. The authors report a significant correlation between connection and performance variables similar to the ones in Peng and Luo's study (Li & Zhang, 2007:799-800). Similar to Peng and Luo, Sheng, Zhou, and Li (2011:12-13) measure political connection as the average across a respondent's opinions about the strength of the firm's manager relationships with government officials and agencies, and business performance as a respondent's average opinion of the firm's performance on various indicators (sales growth, market share, profit) relative to major competitors. In contrast to the above studies, the association between political connection and performance variables obtained from 241 entrepreneurs leading Beijing high-tech businesses is negligible (Sheng et al., 2011:8-9).

## Entrepreneur Attributes

A popular alternative to asking business leaders about their political connections is to look for cross-cutting memberships, as when political leaders serve on corporate boards, or business leaders serve in the government. Faccio (2006) is a widely-cited example that warrants mention here even though it does not include Chinese business and focuses on publicly traded companies rather than on private firms. Faccio searched through a variety of archival records on 20,202 publicly traded companies in 47 countries for evidence of connections between business and government. A company is politically connected if (Faccio, 2006:370): “one of the company’s large shareholders or top officers is: (a) a member of parliament (MP), (b) a minister or the head of state, or (c) closely related to a top official.”

In China, the analogous and often used cross-membership measure of political connection is membership in the Chinese Communist Party (hereafter the CCP), the People’s Congress (PC) as China’s legislature, or the Chinese People’s Political Consultative Conference (hereafter CPPCC), an advisory board that serves both party and government. Specifically PC and CPPCC membership are deemed effective, as they provide direct access to important bureaucrats and regulators in control of key resources and confer a positive reputation effect signaling the entrepreneur is politically and ideologically trustworthy (Li, Meng & Zhang, 2006). Using a national sample of 1870 private firms from 2006, Zhao and Lu (2016) report that PC and CPPCC membership increases a company’s access to bank loans, though less so if government intervention is low and market institutions mature. In a similar spirit, Ge and colleagues (2017) use data from the same domestic survey to show that the reinvestment rate of private businesses is less vulnerable to institutional deterioration if the entrepreneur is a representative of the PC or CPPCC. Ordinary party membership also matters. Using 1996 data on a national sample of urban Chinese, Walder, Li, and Treiman (2000) report that party membership improves the odds of reaching an elite middle or senior position



in management, professional, or technical occupations. Using data from a national survey of Chinese private enterprises conducted in 2000, Zhou (2008) reports that ventures led by a Party member are more likely to rely on, and obtain bank loans. Using data on 2,324 private enterprises from a national survey two years later, Li et al. (2008) show that ventures led by a Party member (95% of whom were Party members at the time the venture was founded) enjoy more access to bank and government loans, and higher business success measured by returns on assets and equity. Using data on private enterprises from multiple national surveys through 2012, Long, Xu, and Yang (2019) report continuing higher returns on equity for ventures led by Party members. In sum, there is scattered evidence relying on a range of different dependent variables and a whole range of signals of 'political connection' suggesting the utility of political connections in China.

### **Mixed Strategies**

Rather than relying on individual measures alone, some have combined multiple signals into the same analysis. Nee and Oppen's (2012) book on the rise of private enterprise in China, for instance, includes a chapter on political connections in which both kinds of evidence are analyzed. Using data from surveys conducted in 2006 and 2009, the authors combine entrepreneur opinions about their political connections with indicators of participation in politics. The results are mixed: After working with a variety of political connection measures, often several in the same regression model, the authors report statistically significant success associations in a variety of regulated markets (such as bank loans, government procurement, government support in gaining land use rights and access to privatized state assets). Yet, the authors do not find a significant association between political connections and firm size or profitability (pp. 250-253). They corroborate these results from a regional sample with data from a national survey conducted by the World Bank in 2003.

### Our approach

The reliance on a range of different signals of political connection has its pros and cons. A positive is that the specific form of political capital under review is clearly identified. The downside is that reliance on select measures carries the risk of false positives and negatives. By focusing on party membership one may overlook productive *guanxi*-ties an entrepreneur has with government. By focusing on former government position, one may overlook the entrepreneur's more recent involvement in CCP activities. The impact of political connection is likely biased in one direction or the other.

In revisiting the debate on the value of political capital, we introduce a comprehensive measure of political connectedness, which eliminates the described disadvantages of single-measure approaches. Building on prior research, our working hypothesis is:

*H1: Political connectedness matters for an entrepreneur's business performance and access to government support.*

Just as social ties do not operate in isolation, the value of political connectedness is likely to depend on the social structure surrounding the individual entrepreneur. No prior study—whether relying on opinions about connections or on measures of specific entrepreneur or firm attributes such as political affiliation—has explored the ways in which political connection is embedded in a person's network of key business contacts. The implicit assumption is that political connections matter independent of social structure. Prior work has followed a general tendency in entrepreneurship research to proxy networks by size or number of distinct connections, ignoring structural measures (see reviews in Hoang & Antoncic, 2003; Burt, 2019).

But given what we know about the structure-performance association of social networks, the value of political connections / disconnections may very well vary with the social structure around an entrepreneur. More specifically, the value of a distinct level of political connectedness (or disadvantage of disconnectedness), may depend on the opportunities associated with distinct network structures. Similarly, in an economy that

continues to offer considerable scope for negotiation between political and economic actors such that political connections determine the type of opportunities entrepreneurs can realize, the value of a distinct level of network openness may vary with the political connections the individual entrepreneur can bring to the task—either in the form of active help or in the form of a status signal conferred by political association. Our second working hypothesis is:

*H2: Political connectedness matters for the performance advantage provided by an entrepreneur's business network.*

## **DATA AND METHODS**

Our data are from a 2012 survey of 700 CEOs of a stratified random sample of private enterprises in five manufacturing industries and seven cities within three provinces around the Yangtze River Delta: the independent municipality of Shanghai, and the two bordering provinces Jiangsu to the north, and Zhejiang to the south. In 2013, the combined production value of these three provinces was 20.2% of China's gross domestic product; and the combined import and export value accounted for 31.9% of foreign trade. The average firm in the sample was founded around 2000, with the youngest firms founded in 2009 and the oldest founded in the early 1980 (Nee & Opper, 2012: Chap. 2, and Bian, 2019: Chap. 4, provide succinct overview of business foundings in the recent history of the Chinese economy). Two thirds (65%) of the founders paid all start-up costs with their own money. Most of the other third were primary investors (29% of all founders paid less than all of their start-up costs, but they paid an average of 58%). Interviews were conducted in respondent offices by pairs of professional interviewers given extra training for this interview using network items.

## Dependent Variables

We have four dependent variables: business success, return on assets, government help, and business survival. We measure business success as a self-made man can be argued to experience it: (1) a lot of money passes through his hands, (2) jobs can be given to deserving friends, new contacts, or members of their families, and (3) the company signals technological sophistication. These three factors are conveniently measured by total sales, employment and the patents a company holds. The three success variables are strongly correlated, so we summarize them by their principal component, (first principal component describes 65% of variance in the three indicators, and Burt & Burzynska, 2017:229, report the network association with each of the three success indicators individually). Business success is the z-score principal component. We also have from the chief financial person in the firm the last full year of net income and assets, from which we compute the return on assets for the business.

Respondents were asked whether their business had received over the last three years any “of the following forms of formal or informal assistance from a national, regional, or local government agency or government official” (number of respondents answering yes is in parentheses): obtain bank loans (59), identify foreign investors (5), locate foreign technology to license (14), identify potential foreign clients (48), identify potential foreign customers (17), identify domestic clients (136), get land use rights (70), obtain discounts for renting buildings, machinery, etc. (120), obtain tax benefits (91), or other (1). The majority of respondents reported not receiving any government assistance (409 or 58.4%). A substantial minority were assisted on one kind of issue (20.0%). Fewer were assisted on two kinds of issues (12.4%), and fewer still were assisted on more than two kinds of issues (9.1%). Government help is a four-category ordinal variable distinguishing businesses that received government assistance on none, one, two, or more kinds of issues. Given the majority of respondents in the “none”

category, we also predict a binary variable distinguishing businesses that received none versus any government assistance.

The sample businesses are entrepreneurial ventures, so we expected survival to be a struggle for many. In addition, survival must have been especially difficult in the years following the 2012 survey since those were years of excess manufacturing capacity, decreasing investment, increasing private enterprise debt, and decreasing private enterprise profitability (e.g., Obstfeld, 2016). In addition to economic difficulties, there was a political issue — the national government's anti-corruption campaign. The campaign began after the National Congress in 2012 and continued into 2017 (a succinct overview is provided by the Wikipedia entry, "Anti-corruption campaign under Xi Jinping"). Private enterprise was not targeted directly, however, government officials were prosecuted for gifts from private enterprise, so it is reasonable to suspect that the removal of officials connected with private enterprise could be a problem for the survival of connected businesses, especially for those entrepreneurs who relied on corruption to influence resource allocation (Lin, Morck, Yeung & Zhao, 2018).

Official company registers are not necessarily a good source to determine whether companies are active or not. The reason is that many entrepreneurs choose to keep their business registered during an economic downturn, while releasing their workforce and cutting other expenses. In such cases, the operation goes temporarily dormant, while the entrepreneur hopes for the next economic recovery to bring new contracts. To not mistakenly treat such companies as active, we distinguish for business survival between de-registered (dead) companies, registered and inactive (dormant) companies, and registered and active companies. We use two conditions to identify active businesses: 1) The company can be located in 2017 using China's web browser Baidu, and 2) the company is listed in 2017 Qixin.com (a register of Chinese company data) and updated its webpage or posted job openings in the last year. Dormant companies are those for which these conditions are not fulfilled while maintaining the company

registration (for further details see Zhao & Burt 2018). In total, we end up with 265 (37.9%) dead (de-registered) companies, 201 (28.7%) dormant companies, and 234 (33.4%) active companies in 2017.

### **Independent Variables**

We have two primary independent variables: a respondent's social network of key business contacts, and his or her political connection.

Social Network. The network around each respondent is measured in the usual way by asking for the names of key contacts (people helpful in building and operating the business), then asking about the substance of the respondent's relations with each contact, and the strength of connections between contacts (Burt & Burzynska, 2017: Appendix). Such survey questions are routine in network survey research (Marsden, 2011; Perry, Pescosollido & Borgatti, 2018), in network surveys of management populations in particular (Burt, 2010: pp. 281ff.), and have precedent in China (Ruan, 1998, the 2003 Chinese General Social Survey, Bian & Li, 2012; Xiao & Tsui, 2007; Batjargal et al., 2013). The survey instrument and materials are available in the original English (see acknowledgement note). Scaling the survey data for network metrics is discussed by Burt and Burzynska (2017: Appendix). Varying from three to 12 contacts around a median of six, each respondent's network is a matrix of symmetric connections with and among contacts. From the matrix, we compute a network constraint score for each respondent.

Intuitively, network constraint increases from zero to one with the proportion of person's network time and energy consumed by one group. Multiplied by 100 so we can talk in terms of points of constraint, a constraint score of 100 indicates that a person's contacts are all strongly connected with one another (no access to structural holes). Constraint decreases toward zero with the extent to which a person has many contacts (network size or degree), increases with the extent to which the person's network is closed by strong direct connections between contacts (network density), and increases

with the extent to which the person's network is closed by an individual through whom contacts are strongly connected indirectly (network hierarchy or centralization).

Previous work with the data used here has shown that businesses led by people with more constrained social networks have lower business success (Burt & Burzynska, 2017; Burt & Opper, 2017; Burt, 2019), lower return on assets (Burt & Opper, 2017:534n; Burt, 2019), and lower odds of business survival over the six years from interview into 2017 (Zhao & Burt, 2018)

Political Connection. We use three different measures to capture political connection. First, respondents were asked whether they are currently members of the Party (174, 24.9%). We do not use PC and CCPC membership as our key measures, as both are suspected to be a reward for, rather than a determinant of business success (Lu, 2017). Second, we look for respondent opinions on the three indicators introduced by Peng and Luo (2000) about how much use they make of government *guanxi*. Figure 1 displays the distribution of responses on the three indicators. The question wording is slightly different in the survey from the original wording (for exact wording see figure). Response distributions are not identical across the three indicator variables, but few people are extreme on all three indicators, and responses are strongly correlated between indicators (first principal component describes 78.3% of variance in the three indicators). As a Peng-Luo Index, we use the average response on the three indicators to measure how much use the respondent entrepreneur makes of government *guanxi*.

———— Figure 1 About Here ————

Finally, we construct what is likely the most comprehensive index used in the literature so far to acknowledge that there are a great many characteristics of a person or business that can indicate political connection, or lack of connection. The party is not the only, and perhaps not the primary, indicator of political connection. As Fang and Lu (2019:58) summarize: "Over the past forty years, the proportion of entrepreneurs who worked inside the system has declined after a period of growth, while the proportion of

entrepreneurs who come from outside the system has risen sharply. . . .The proportion of CPC members has trended downwards from a peak to a gentle decline. Meanwhile, more and more people with market backgrounds, high levels of education and no party affiliation have joined the ranks of private entrepreneurs.” What are the characteristics that currently indicate political connection? In Table 1, we list 37 characteristics with means and standard deviations for the sample entrepreneurs (1 if a respondent has the characteristic, 0 otherwise). There are seven characteristics of the entrepreneur personally. There are 15 characteristics of the entrepreneur’s relationships with Party contacts. There are 11 characteristics of the entrepreneur’s organization. Finally, there are four levels of special government assistance the entrepreneur felt he or she had received during the last three years.

———— Table 1 and Figure 2 About Here ————

To capture the many indicator characteristics of political connection without having multiple correlated indicators interfering with one another in our regression models, we want to see how these indicator characteristics cluster along a continuum from weak to strong political connection. Figure 2 is a multidimensional scaling (MDS) of Jaccard coefficients for each pair of characteristics. Two characteristics are close together in Figure 2 to the extent that they occur in the same entrepreneurs. For example, characteristics 7 and 8 are close together in the upper-right of Figure 2, indicating that entrepreneurs who have been a cadre in the government tend to include Party members among the key business contacts they cite. Two dimensions capture most of the indicator variance, with the first dimension clearly dominant (first dimension is 66% of variance, second is 10%). To emphasize the relative descriptive power of the two dimensions, axes in Figure 2 are proportional to the eigenvalues defining each dimension.

The dimensions distinguish entrepreneurs in terms of direct and indirect political connection. The principal dimension — along the horizontal axis in Figure 2 — is direct



political connection. Characteristics of disconnection are clustered to the left. Characteristics of strong connection are clustered to the right. The secondary dimension, on the vertical axis in Figure 2, distinguishes direct from indirect connection. There is a cluster of ten characteristics in the upper-right corner of the space that describe entrepreneurs who are directly connected into politics: They are Party members (#1) who hold positions above just being a member (#2), and were Party members when the business was founded (#5). They are members of the PC or PPCC (#3) who cite key business contacts who are Party members (#8). They have held cadre positions in the government (#7) and have been managers in state-owned enterprises (#6).<sup>1</sup> They run large businesses (#30) that include a Party organization in the business (#23) and business revenue is used to fund Party activities (#24).

Characteristics in the lower-right corner of the space describe indirect connection. These are entrepreneurs who claim to know many people in politics, but are not themselves involved. These are personal contacts in politics, not acquaintances (68% “friend” with county contacts, 64% with municipal contacts). To the extreme lower-right are people who claim to know in person three or more cadres in municipal government (#17), but have to offer incentives to get help from the municipal cadres they know (#18). Having to pay for help does not bring to mind *guanxi*. Also in the lower-right quadrant are people who claim to know in person three or more cadres in county government (#12) and people who say they make extensive use of government *guanxi* (high on Peng-Luo Index, #22).

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<sup>1</sup>Li et al. (2008) argue that a manager's political connections depend on opportunities to develop political connections. The authors show that managers in state-owned enterprises have more political connections than managers in private enterprises. All of our sample enterprises are private, so we have no comparison to CEOs in state-owned enterprises, but we recover some of Li et al.'s intuition in that entrepreneurs who have held cadre positions in the government (characteristic #7), or previously worked as managers in a state-owned enterprise (characteristic #6), are likely to be politically connected (upper right in Figure 2). The Li et al. intuition about opportunity being exogenous to having connections is developed for attributes more generally by Blau (1977) in his theory of social structure.

We are interested in direct connection more than indirect connection so we focus on the upper-right in Figure 2 for indicators of political connection. A simple measure is to add up the number of characteristics a person has that indicate strong political connection. We computed the following index of political connection across the nine characteristics of political connection listed in Figure 2:

$$(\sum_j d_j w_j) / (\sum_j w_j),$$

where  $d_j$  is a dummy variable equal to one if a respondent has indicator characteristic  $j$ , zero otherwise, and  $w_j$  is a weight. If weights are all set to one, which creates an unweighted index, then the index is the proportion of the nine characteristics that a person has. We also consider weights defined by scores on the horizontal axis in Figure 1 so that characteristics of stronger connection are given more weight in the index (weights are given in Table 1). For example, being a Party member is characteristic #1 in Figure 2, but it is the least strong of the listed indicators (score of .208 on the horizontal axis). Holding a position in the Party is characteristic #2, which is the strongest of the indicators (score of .489 to the far right on the horizontal axis), so holding Party position indicates stronger political connection. We include firm size in the multidimensional scaling to see how firm size is a correlate of characteristics that indicate political connection, but exclude large size (30) from the index of political connection because growing a large business is a component in one of our dependent variables, business success. Figure 2 shows, consistent with past research and common sense that the people running large firms tend to be politically connected.

A cluster of characteristics indicating political disconnection is distinguished to the far left in Figure 2. Variation on the vertical axis to the right of Figure 2 between direct versus indirect connection disappears as one moves to the left. There is no distinction between direct and indirect for people who are disconnected. Politically disconnected entrepreneurs are people who don't know any cadres at the municipal or county levels (#15 and #10), only have indirect contact with cadres (#19 and #14), and claim to make

little use of government *guanxi* (low scores on Peng-Luo Index, #20). They tend to run small businesses (#28) that are wholly owned by senior management and their families (#31). They claim to have received no special government assistance on any issues during the last three years (#34).

In the same way that we computed an index of political connection by aggregating the nine characteristics indicating connection, we compute an index of political disconnection by aggregating the six characteristics listed in Figure 2 indicating disconnection. We include firm size and levels of government assistance in the multidimensional scaling to see how they are associated with political connection, but exclude both characteristics from the index of political disconnection because both are components in our dependent variables. Consistent with past research and common sense, heads of small firms who receive no special assistance from the government tend to be politically disconnected.

Our initial motivation for computing indices of connection and disconnection was to test for robust effects when connection is measured from abundance versus absence of connection. We assumed that there would be a strong, if not close to perfect, negative correlation between the two measures. In fact, political disconnection is more than the opposite of connection. For one thing, political disconnection is distributed more widely than connection. The majority of entrepreneurs have no characteristics indicating political connection (417 of 700, or 59.6%), while most have one or more characteristics indicating political disconnection (677, 96.7%). Second, many entrepreneurs who have characteristics indicating political connection also have characteristics indicating disconnection. The expected strong negative correlation between connection and disconnection is in fact only  $-.171$  for raw count of indicator characteristics ( $-.173$  for counts weighted by fractional  $w_j$  in the equation above).

A third reason to simultaneously measure political connection and disconnection is that they have different, but not opposite correlates. This will be demonstrated in the

results, but it is already evident among the independent variables. Consider the Peng-Luo Index in Figure 1. The vertical axis to the right in Figure 1 measures mean levels of political connection and disconnection for entrepreneurs assigned to categories on the horizontal axis by their closest integer value of the Peng-Luo Index. There are very few people in the extreme categories, so they are included in the adjacent category (1 into category 2 and 7 into category 6). The index of political connection (white dots) increases slightly across levels of the Peng-Luo Index, but not much. The index of political disconnection (solid dots) is relatively stable across levels 2, 3, and 4 of the Peng-Luo Index. Then disconnection drops sharply at level 5, and again at level 6. The similarity of levels 2, 3, and 4 on political connection and disconnection are why we combine them in the Figure 2 multidimensional scaling of characteristics. Returning to individual scores, there is a strong negative correlation between an entrepreneur's score on the Peng-Luo Index and his or her level of political disconnection (-.34 correlation, -9.44 t-test for 700 entrepreneurs). In contrast, the Peng-Luo Index is almost perfectly uncorrelated with the index of political connection (.03 correlation, 0.83 t-test).

For the above three reasons of (1) disconnection more widely distributed than connection, (2) many entrepreneurs having characteristics of both connection and disconnection, and (3) connection versus disconnection having different, rather than opposite, correlates, we make predictions using both the index political connection and the index of political disconnection.

### **Control Variables**

We include control variables known to matter in prior analyses of these data (Burt & Burzynska, 2017; Burt & Opper, 2017; Zhao & Burt, 2018). Beyond controls for differences between city and industry sampling strata, we control for firm age (positive association with success), whether the founder is still running the business (negative association with success), whether the business has an R&D department (positive association with success), and business success at founding (positive association with

success). A business is founded when formally registered as a private enterprise, but many of the sample businesses had been in operation before they were registered. Some operated under a different legal form. Others started operations, and even signed their first contract, without formal registration. In its first year as a registered private enterprise, the median business had 20 full-time employees and sales of 1,500,000 yuan (about 180 thousand U.S. dollars at the turn of the century). The control variable, business success at founding, is a principal component extracted from number of full-time employees and annual sales at founding. The principal component describes 86% of variance in the two indicators.

We also control for entertainment and travel costs, an accounting category, that companies use for expenditures used for bribes and gifts to government officials (Cai, Fang, & Xu, 2011). Such costs are a standard accounting item for Chinese firms and are relevant to the anti-corruption campaign that began just after the 2012 survey. To control for a company's risk from the anti-corruption campaign we measure entertainment and travel (ET) costs, by the percentage (for the year of the 2012 survey) of company revenue spent on entertainment and travel (computed as 100 times entertainment and travel costs in 2011 divided by sales for 2011). Percentage entertainment and travel costs are remarkably stable over time, indicating standard operating policy within businesses. The mean percentages are 2.06, 2.04, and 2.08 for 2011, 2010, and 2009 respectively. The percentage for 2011 has a .98 correlation with the percentage for 2010, which has a .96 correlation with the percentage for 2009. Table 1, and the multidimensional scaling in Figure 2, include three categories of entertainment and travel costs: high (#27), above average (#26), and other (#25). The categories show no association with political connection. All three categories are clustered together as irrelevant to the continuum from weak to strong political connection (the high, above average, other contrast is picked up in the fourth dimension to the multidimensional space). Still, as expected, the highest percentage of such costs are for

companies that end up unlisted in 2017, with lower percentages for companies in a dormant state, and still lower percentages for companies active in 2017 (2.3%, 2.0%, and 1.8% respectively).

## RESULTS

Figure 3 displays the social network of key business contacts cited by one of the sample entrepreneurs. When he was interviewed in 2012, the entrepreneur had 857 employees in his machinery business founded 15 years earlier. In terms of employees, sales, and patents, the business was well above average (2.70 z-score on the business success measure). The business grew and prospered in subsequent years. We delete specifics to preserve confidentiality. This is one of the more successful sample ventures.

### **Political Connection in Network Context**

The entrepreneur in Figure 3 has some characteristics of being well-connected politically. He is a member of the Party and holds Party office. There is a Party organization in his business, and he regularly uses business revenue to fund Party activities. His characteristics to the right in Figure 2 give him a score of .66 on the index of political connection, which is well above the average sample entrepreneur (average score is .11, making the entrepreneur's .66 a 3.14 z-score in the sample).

More, the entrepreneur's key business contacts are embedded in the Party. Figure 3 shows that the entrepreneur named six key business contacts. One, to the right in the figure is a competitor outside the Party cited because his improper market behavior made the entrepreneur's life especially difficult last year. The other five contacts were cited as a source of critical help during significant events in the history of the business. One is a relative, cited for his help in rebuilding the business after the financial crisis. The other four are members of the Party, cited for their help in founding and growing the business. The relative and all four party contacts are extremely close to one another,

and are all distant from the misbehaving competitor. In short, the entrepreneur has a dense network of business contacts anchored in the Party.

——— Figure 3 and Figure 4 About Here ———

The example in Figure 3 is consistent with the suspicion that political connections are associated with business success. The business is successful and the founder entrepreneur is well-connected into the Party. But there is always a case or two that fits whatever story one wishes to tell. The question for empirical research is how the story fits across a representative sample of diverse businesses. In fact, the business in Figure 3 is an unusual case. This is the only entrepreneur in the sample who cited such a plurality of Party members as business contacts. The vast majority cited no Party members (95%, .05 mean in Table 1 for characteristic #8).

And the entrepreneur in Figure 3 has some characteristics of being disconnected politically. He knows only one cadre in county government, and claims to have only indirect access through friends to cadres in municipal government. His score on the Peng-Luo Index of using government *guanxi* is not high. It is about average (4.33 on the horizontal axis in Figure 1, for a z-score of -0.23 in the sample). Across the characteristics to the left in Figure 2, he has a .50 score on the index of political disconnection, which is also about average for the sample entrepreneurs (average is .55).

Political connection turns out to neither overlap with, nor be independent of, the business network around an entrepreneur. It is both. Figure 4 shows how connection and disconnection are distributed across levels of network constraint for all 700 sample entrepreneurs. Levels of political connection are independent of the distinction between large, open networks versus small, closed networks. White dots in Figure 4 show negligible change in levels of political connection across levels of network constraint (0.57 t-test across the 700 entrepreneurs). Some entrepreneurs with large, open networks are connected politically, but the average level of connection observed among

them is about the same as at the opposite social extreme, among entrepreneurs with small, closed networks. Disconnection, on the other hand, is correlated with network structure. Black dots in Figure 4 show that the index of political disconnection increases with network constraint (2.78 t-test,  $P < .01$ ). Politically disconnected entrepreneurs tend to be sequestered away from politics in small, closed networks of interconnected business contacts. Given the loose association between network structure and political connection, the relative strength of each as alternative success factors is an open empirical question.

### **Political Connection and Business Success**

The remaining tables contain results predicting our dependent variables. Each table contains four models. The first is a baseline model describing the known network association with controls. The other three are the baseline model plus a measure of political connection: (2) entrepreneur is a Party member, (3) the entrepreneur's score on the Peng-Luo Index, and (4) the entrepreneur's index scores for political connection and disconnection.

With respect to growing a prosperous business, Table 2 shows the expected negative success association with entrepreneurs who limit themselves to a small, closed network (-3.39 to -3.14 t-tests). Return on assets also decreases systematically across entrepreneurs with smaller, more closed networks (-2.58 to -2.24 t-tests in Table 3). Success associations with the control variables are as they have been in previous publications (Burt & Burzynska, 2017; Burt & Opper, 2017). In short, the success association with large, open networks is robust to controls for political connection.

At the same time, the results show that political connection is a success factor for these entrepreneurs observed in 2012. Being an ordinary party member is irrelevant to growing a prosperous business or current profits (0.86 and -0.13 t-tests in model 2 in tables 3 and 4), but the Peng-Luo Index of using government *guanxi* has a positive association with business success (2.50 t-test in model 3, Table 2,  $P < .05$ ), and



success is strongly associated with the indices of political connection and disconnection (model 4). Success is higher for entrepreneurs with characteristics indicating political connection (3.88 t-test,  $P < .001$ ), and is lower for the politically disconnected (-2.63,  $P < .01$ ). Similar associations occur if the index of political connection is added without controlling for political disconnection (3.88 t-test in Table 2 becomes 4.21), or if the index of political disconnection is added without controlling for political connection (-2.63 t-test in Table 2 becomes -3.15). Similar associations also occur if the weighted indices are replaced with unweighted indices (see note to Table 2).

———— Table 2 and Table 3 About Here ————

The success association with profitability is more subtle. Given network constraint and the control variables, the results in Table 3 show that return on assets is no better predicted by including Party membership, or the Peng-Luo Index of using government *guanxi*, or the index of political connection from Figure 2. What does matter is disconnection. Entrepreneurs who are politically disconnected earn lower return on their assets (-2.11 t-test,  $P < .05$ ).

The particular importance of disconnection is also evident in predicting who grows a prosperous business in Table 2, but we had to look more closely to see it. Figure 5 shows for three categories of entrepreneurs how the business success variable in Table 2 is distributed across levels of network constraint, from large, open networks at the left to small, closed networks to the right. To make success visually comparable between entrepreneurs in different circumstances, the vertical axis in the Figure 5 graph is success adjusted for differences in industry, city, and the control variables listed in Table 2 (studentized residual from predicting business success by the five control variables with fixed effects for industry and city). The three categories of entrepreneurs are the

politically connected,<sup>2</sup> the politically disconnected,<sup>3</sup> and a reference group of 309 people who are neither connected nor disconnected.

———— Figure 5 About Here ————

For the reference group and the politically connected — a majority 71.1% of the sample entrepreneurs, political connection and network have independent associations with success as portrayed by the results in Table 2. Regression results to the left in Figure 5 show for the reference group that success decreases significantly with increases in network constraint (-3.78 t-test,  $P < .001$ ), and the two solid regression lines in the graph are almost identical, showing a similar success association with network constraint for the politically connected (negligible -.03 slope adjustment to the left in Figure 5 for the politically connected). Politically connected entrepreneurs differ from the reference group in their level of success. The solid line for connected entrepreneurs appears in Figure 5 well above the solid line for the reference group, by a statistically significant third of a standard deviation (.33 coefficient, 4.95 t-test,  $P < .001$ ).

Success comes differently to the politically disconnected. The difference is not in level of success. Success for the politically disconnected is on average no lower than the success of entrepreneurs in the reference group. The -.09 average difference in success is statistically negligible (-1.43 t-test,  $P \leq .15$ ), and the data in Figure 5 for the politically disconnected (solid dots) are distributed over the same area as the data on the reference group (hollow dots).

What is different is the network-success association. There is none. The politically disconnected get no return on building a large, open network of business contacts. The dashed line in Figure 5 is flat, and the slope adjustment in the regression results strongly

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<sup>2</sup>One hundred eighty seven people have one or more of the connection characteristics to the right in Figure 2, and have a score less than the median on the index of political disconnection. Zero connection characteristics is the median.

<sup>3</sup>Two hundred four people have none of the connection characteristics to the right in Figure 2, and have a score above the median on the index of political disconnection.

reverses the strong network-success association for other entrepreneurs (-.55 association for the reference group is adjusted by .65 for the politically disconnected, leaving the negligible positive association displayed by the dashed line in Figure 5).

Our findings are consistent with a variety of narratives. For instance, the claim that political connection is needed to protect businesses against ad-hoc interventions and to protect the business' property rights (Xin & Pearce, 1996). Or the common notion, that entrepreneurs without political connections are less likely to invest out of fear of future expropriation or over-taxation (Ge et al., 2017). We cannot discern which precise mechanism is in place. Yet it is safe to say, that politically disconnected entrepreneurs are not able to generate the expected positive value from having a large, open network (as their peers elsewhere, Burt 2019) — either because complementary political support is missing or because they perceive available opportunities for business development as too risky to pursue.

### **Political Connection and Government Assistance**

Political connections deliver government assistance. A substantial minority received assistance from government agencies or officials on some issue during the previous three years (291 entrepreneurs, or 41.6% of the sample). Ordinal regression results in Table 4 show that all three measures of political connection — Party membership, Peng-Luo Index, and the indices of Political Connection and Disconnection — identify entrepreneurs who received help on a variety of issues. Also consistent across the alternative measures, the difference between more and less constrained networks of key business contacts has no association with government assistance. With respect to help from the government, network advantage is about having political connections.

——— Table 4 ———

A substantial portion of the association in Table 4 with political connection is less about being connected than it is about not being disconnected. The point is illustrated by the results in Table 5, which required re-estimating Table 4 three times, each time for

a different category of government help narrower than the total in Table 4. As in Table 4, network constraint (coefficient estimates not reported) has no statistically significant direct association with government assistance in any of the nine models reported in Table 5.

Many entrepreneurs receive help on domestic issues (39.9%), and more kinds of help on domestic issues go to entrepreneurs with political connections. Associations in the first column of Table 5 are all strong in the expected directions — help is more likely for Party members (2.39 z-score,  $P < .05$ ), more likely for entrepreneurs who make extensive use of government *guanxi* (Peng-Luo Index, 3.32 z-score,  $P < .001$ ), more likely for entrepreneurs with characteristics indicating political connection (2.25 z-score,  $P < .05$ ), and less likely for entrepreneurs who have characteristics indicating political disconnection (-3.01 z-score,  $P < .01$ ).

Only a few entrepreneurs receive help on foreigner issues, and the variety of help is less associated with political connection. The indices of political connection and disconnection have their weakest association with receiving help on foreigner issues (5.51 chi-square, 2 d.f.,  $P \leq .06$ ), and entrepreneurs who are Party members are no more likely to receive help on foreigner issues than are entrepreneurs who are not members (0.08 z-score,  $P \leq .94$ ). The Peng-Luo Index of using government *guanxi* is associated with help on foreigner issues (2.53 z-score,  $P < .05$ ), and the association is more than just claiming to know a large number of cadres. When we control for number of county and municipal cadres an entrepreneur claims to know, help on foreigner issues is still associated with the Peng-Luo Index (2.37 z-score,  $P < .05$ ).

However, notice the different assistance associations with the indices of political connection (negligible positive association) and disconnection (negative association). This is similar to the difference in index associations with the Peng-Luo Index (Figure 1) and network constraint (Figure 4). Overlap between the Peng-Luo Index and the two indices is apparent here from the fact that there are no unique associations with help

when all three predictors are included in the prediction (1.86 z-score test statistic for Peng-Luo Index, -1.49 for index of political disconnection). We interpret the stronger association with disconnection to mean that the low end of the Peng-Luo Index is more responsible than the high end for the association with government help. Using government *guanxi* has less of a positive effect on receiving help on foreigner issues than failing to use government *guanxi* has on being ignored when help is distributed.

———— Table 5 and Figure 6 About Here ————

The point is made more clearly in the third column of Table 5. To be more concrete about the kind of government help predicted, results in the third column are from logit models predicting whether or not an entrepreneur receives government help in identifying potential customers, foreign or domestic. This is the most likely kind of help (22.3% of the sample entrepreneurs reported receiving such help). Results in the third column of Table 5 show no association with any measure of connection — Party member, Peng-Luo Index, or the index of political connection. Rather, the absence of assistance is strongly predicted. Politically disconnected entrepreneurs are unlikely to receive government help in identifying customers (-3.91 z-score,  $P < .001$ ).

The network associations responsible for the results in Table 4 and Table 5 are plotted in Figure 6. As in Figure 5, the sample entrepreneurs are divided here into three categories: the politically connected, the politically disconnected, and other as a reference group. The logit regression equation to the left in Figure 6 predicts who receives government help in identifying potential customers. The vertical axis in the Figure 6 graph is help adjusted for kind of business (dummy variable for help minus the probability of help predicted by the control variables in Table 4). Negative scores on the vertical axis indicate entrepreneurs expected from their industry, city, and business control variables to receive help, but who did not receive any (zero minus a fraction). Positive scores indicate entrepreneurs received help, but were not expected to (one minus a fraction).

As in Figure 5, solid regression lines in Figure 6 show that the network association with government help is almost identical for the reference group and politically connected entrepreneurs (-0.10 z-score test statistic,  $P \leq .92$ ), with the politically connected more likely on average to receive assistance regardless of network (.54 coefficient, 2.39 test statistic,  $P \leq .02$ ). There is so much variation around the associations that the slopes visible in Figure 6 are statistically negligible (-1.17 test statistic,  $P \leq .24$ ).

As is Figure 5, the dashed regression line in Figure 6 shows that the politically disconnected entrepreneurs live in a different world. On average, they are less likely to receive government help as already reported in Table 4 and Table 5 (-.83 coefficient to the left in Figure 6, -2.89 test statistic,  $P < .01$ ). But the dashed line describes a strong association between network structure and receiving help.<sup>4</sup> For entrepreneurs in small, closed networks, the people to the far right in Figure 6, there are no differences among the three categories in their odds of receiving assistance. Connected, disconnected, and reference group entrepreneurs are equally likely to receive help, at about the level expected from the kind of business they run (from left to right in Figure 6, the three slopes converge to around zero on the vertical axis). From right to left, as the network around an entrepreneur expands — creating the information breadth, timing, and arbitrage advantages of large, open networks, a gap widens between the politically connected and the disconnected. Inside the government, politically connected entrepreneurs find help in identifying potential customers, while the politically disconnected search for themselves. In sum, with respect to receiving assistance from government agencies and officials, the advantage to entrepreneurs of being politically connected is less than the cost of being disconnected.

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<sup>4</sup>The logit regression results to the left in Figure 6 show a 3.38 slope adjustment to the -.74 slope for the reference group (3.14 test statistic,  $P < .001$ ). This strong slope adjustment can also be seen in predicting government help more generally (16.79 chi-square test statistic with 2 degrees of freedom in the note to Table 4,  $P < .001$ ).

## Political Connection and Survival

Although strongly associated with business success, political connections have no direct association with business survival. There is a zero-order association in which the 2012 businesses of politically connected entrepreneurs are more likely to be still active in 2017 — but the association disappears when the entrepreneur’s business network is held constant.<sup>5</sup> Survival is more about the business network than political connections. In some part, this reflects the tendency for political interests to seek out connections with businesses that are currently thriving.

The evidence is in Table 6. Following Zhao and Burt (2018), we distinguish businesses in 2017 that are dead (in the sense of no longer registered with the state; 265, 37.9%), dormant (still listed in 2017 but no website and no job postings in 2017; 201, 28.7%), or active (listed, website, and job postings in 2017; 234, 33.4%). The models in Table 6 are given numbers different than in earlier tables because the network association with survival involves another control variable. We estimated multinomial logit models in which each prediction involves two equations, the one predicting death rather than being dormant, and the one predicting the business is still active rather than

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<sup>5</sup>We don’t display the zero-order association in the text because it disappears when the entrepreneur’s business network is held constant. However, when we present this analysis in workshops, there is usually a question about the lack of association between survival and political connections, so here is a tabulation of the zero-order association:

	Dead in 2017	Dormant	Active in 2017
Connected in 2012	80	69	55
Neither connected nor disconnected	128	72	109
Disconnected in 2012	57	60	70

Rows distinguish the three categories of political participation in Figure 5 and columns are the three survival outcomes. Continuing active to 2017 is more likely for businesses run by politically connected entrepreneurs (37.43% active for politically connected versus 27.0% for politically disconnected), and the odds of survival are significantly different for the three categories of political connection (13.34 chi-square, 4 d.f.,  $P \leq .01$ ).

dormant. Coefficients for the later equation are presented in Table 6. We only present one of the two equations because the conclusion from both equations is that political connections are not associated with businesses survival. All of the z-score test statistics are negligible for the political connection predictors (first four rows in Table 6). Summary tests not presented in the table show that entrepreneurs who were Party members in 2012 are no more or less likely to be active in 2017 than entrepreneurs who were not Party members (3.25 chi-square, 2 d.f. for the two equations in which Party predicts,  $P \leq .20$ ), survival is independent of the Peng-Luo Index describing the use an entrepreneur made of government *guanxi* back in 2012 (1.07 chi-square, 2 d.f.,  $P \leq .59$ ), and survival is independent of political connection and disconnection (2.30 chi-square, 4 d.f. for two predictors in the two equations,  $P \leq .68$ ).<sup>6</sup>

————— Table 6 About Here —————

What predicts survival is an entrepreneur's network of key business contacts. The smaller, and more closed, the network around an entrepreneur, the less likely his or her business will be active five years after the survey (test statistics for network constraint in Table 6 are all about three times their standard error,  $P < .01$ ). The one qualification is that the business has to be doing reasonably well for the network to improve the odds of survival five years later. Following the analysis in Zhao and Burt (2018), the Table 6 variable "less successful in 2011" is a binary variable distinguishing businesses that had below average returns on assets at the end of 2011, the last full year before the survey. Businesses "less successful in 2011" are less likely to be active in 2017 regardless of network advantage (test statistics of around -2.0 in Table 6), and for those businesses,

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<sup>6</sup>In contrast to business success and government assistance, there are no higher-order interactions linking survival with mixtures of network, political connection, and political disconnection. A test for continuous interaction effects is reported in the note to Table 6 (2.29 chi-square, 4 d.f.,  $P \leq .68$ ), and we tested for the level and slope adjustments illustrated for connected, disconnected, and other entrepreneurs as illustrated in Figure 5 and Figure 6 (11.21 chi-square, 8 d.f.,  $P \leq .19$ ).



there is no network advantage for survival. In the first column of Table 6, for example, there is a -1.69 coefficient for log network constraint lowering the odds of being active in 2017. That is a network advantage for entrepreneurs with large, open networks in 2012. However, the slope adjustment for less successful businesses is 1.61, which reduces the -1.61 network effect to a negligible .08.<sup>7</sup>

## CONCLUSION

Our primary conclusion is that political connection continues to be a business success factor, above and beyond the business network around an entrepreneur. Specifically, political connection is associated with growing a prosperous business (Table 2) and receiving special assistance from the government (Table 4). At the same time, having a large, open network is a success factor above and beyond political connections, especially for growing a prosperous business (Table 2), higher returns on assets (Table 3), and survival (Table 6). Survival in particular is associated with large, open networks and has no direct association with political connections (bearing in mind that the business success associated with political connections can have an indirect association with later survival, rising above the “less successful” business effect in Table 6). In other words, as important as political connections are for the growth of the business and for attaining government support, political connections are neither associated with operational efficiency nor a prerequisite for business survival in China’s hybrid economy.

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<sup>7</sup>We tested for a similar slope adjustment for political connection. To see whether the advantages of political connection in 2012 were stronger for businesses doing reasonably well in 2012, we computed two interaction terms (less successful x index of political connection and less successful x index of political disconnection) and added them to the prediction in Model 8 in Table 6. They are a negligible addition to the prediction (3.59 chi-square, 4 d.f.,  $P \leq .46$ ).

In addition — and more important with respect to new knowledge — we conclude that success associations with political connection are discontinuous across indicators and levels of connection. Party membership, which is at the strong end of connection (Figure 2), is the least predictive of the connection indicators we studied. Party membership is associated with special government assistance (Table 4), but has no association with business success, return on assets, or survival. The Peng-Luo Index of using government *guanxi* is closely associated with business success (Table 2) and government assistance (Table 4), but the Index distinguishes weak to strong levels of connection, so the Index association with success variables is a balance between the positive effects of being strongly connected and the negative effects of being weakly connected. Therefore, it was useful to have indices of both political connection and political disconnection. The latter is more consistently associated with business success measured in terms of return on assets (Table 3) or receiving government assistance with foreigner issues or identifying potential domestic customers (Table 5). More, unique disadvantage arises for the politically disconnected: The business networks usually associated with success do not benefit politically disconnected entrepreneurs. Large, open networks do not provide their advantage for business success (Figure 5) or government help (Figure 6). The loss could certainly be due to the hybrid nature of the economy, in which government officials still enjoy critical influence over a number of key resources. Regardless of why, many entrepreneurs simultaneously have characteristics of being politically connected and characteristics of being politically disconnected, so stronger negative effects from the latter matter for the balance of success factors. Further, a minority of entrepreneurs have characteristics of being politically connected, but a majority have characteristics of being politically disconnected so the negative

effects of political disconnection have broader implications for success in the population. In sum, disconnection is more consistently a problem than connection is an advantage. In looking back over research on political connection as a success factor, some unknown amount of the evidence attributed to advantages from political connection could have been evidence of disadvantages suffered from political disconnection. And how much of the research showing no success association with political connection missed a strong negative association with political disconnection?

What are the practical implications? The solid line in Figure 5 for politically connected entrepreneurs shows that they enjoy higher levels of business success on average, and even more if they build an advantaged network of business contacts (line slopes up over low-constraint networks). The advantage of political connections is not a surprise, but it is useful to know that the advantage exists even in recent years. Obvious responses for ambitious entrepreneurs are financial contributions and strategies of relationship building — either in the form of direct or indirect associations with local government and party officials. The surprise implication revealed in the analysis is that politically disconnected entrepreneurs are not only disadvantaged politically, but they cannot compensate for their political disadvantage by building an advantageous business network. This is an important bit of information for entrepreneurs who believe they can focus on business, ignoring government beyond the minimum required by law. One can hear the hubris in an entrepreneur quoted by Nee and Opper (2012:236): “Politics is just another game. Since I chose to play the game of business, I do not want to play another game. Among my circle of friends, those who do business, they are not very interested in that. There is a feeling that companies that want to have a close relationship with the government must have something to hide.” The quoted person

needs to attend to the dashed line in Figure 5 well below the business success of others, and especially to the slope of dashed line showing no business advantage for politically disconnected entrepreneurs even when they have an advantaged network of business contacts. Thus, one can do well with weak or strong connection to the government, but we caution the entrepreneur who plans to ignore the government.

Of course, regional samples do not represent China at large. The Yangtze delta region has long scored high on national rankings in terms of economic development and institutional quality (see Nee & Opper, 2012, chapter 3 for a description of the survey cities). It is probably safe to assume that political connection and disconnection play an even stronger role in business success elsewhere in China. However, there is no reason to assume that the associations between political connectedness, social networks and business success have a different functional form. If anything, disconnection should produce even greater disadvantage where market liberalization is less advanced (see also evidence from cross country studies, Faccio 2010). The same is true for the network-structure performance association. Where regulatory constraints are high, politically disconnected entrepreneurs are less likely to benefit from the breadth, timing and arbitrage advantages associated with open networks, advantages they see benefitting entrepreneurs who are politically connected.

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Table 1: Indicators of Political Connection for Scaling (mean, s.d. and Figure 2 MDS score in parenthesis)

Entrepreneur (personally)	Entrepreneur relationship with Party/Government		Organization	Government assistance
(1) Currently a party member (.25; .43; .21)	(8) Cites key business contacts in Party (.05; .22; .41)	(17) Knows 3 or more municipal cadres in person (.08; .27; .46)	(23) Party organization in the firm (.19; .39; .29)	(34) No government assistance in last 3 years (.58; .49; -.56)
(2) Party official (.08; .27; 0.49)	(9) Member of family is cadre (.17; .37; .15)	(18) Municipal cadres need incentive to be helpful (.14; .27; .46)	(24) Business regularly funds Party activities (.17; .38; .30)	(35) Government assistance on one kind of issue (.20; .40; -.13)
(3) Member of People's Congress (.03; 0.16; .34)	(10) Knows no county cadres in person (.44; .50; -.56)	(19) Knows municipal cadres only indirectly (.54; .34; .47)	(25) Entertainment/travel costs less than median (.50; .50; -.33)	(36) Government assistance on two kinds of issues (.12; .33; .16)
(4) Former party member or official (.02; .15; .30)	(11) Knows 1 or 2 county cadres in person (.33; .47; -.20)	(20) Makes little use of government <i>guanxi</i> (Peng-Luo) (.41; .50; -.59)	(26) 50 <sup>th</sup> < Entertainment/travel costs < 75 <sup>th</sup> percentile (.25; .43; -.32)	(37) Government assistance on three or more kind of issues (.09; .29; .36)
(5) Party member at founding (.20; .40; .29)	(12) Knows 3 or more county cadres in person (.23; .42; .23)	(21) Makes modal use of government <i>guanxi</i> (Peng-Luo) (.46; .50; -.40)	(27) Entertainment travel costs over 75 <sup>th</sup> percentile (.25; .43; -.30)	
(6) Former manager of SOE (.12; .32; .27)	(13) County cadre needs incentive to help (.22; .41; .02)	(22) Makes high use of government <i>guanxi</i> (Peng-Luo) (.13; .34; .21)	(28) Small business (10-100 employees) (.67; .47; -.57)	
(7) Former government cadre (.05; .22; .42)	(14) Knows county cadres only indirectly (.36; .48; -.53)		(29) Medium business (101 – 300 employees) (.24; .43; -.06)	
	(15) Knows no municipal cadres in person (.74; .44; -.62)		(30) Large business (more than 300 employees) (.09; .47; -.57)	
	(16) Knows 1 or 2 municipal cadres in person (.18; .39; .26)		(31) Management owns 100% of business (.78; .42; -.56)	
			(32) Management owns over 50% (.17; .37; .05)	
			(33) Management owns less than 50% (.05; .23; .24)	

## Table 2.

# Predicting Business Success

	Model 1	Model 2	Model 3	Model 4
Party Member (0, 1)		.05 (0.86)		
Peng-Luo Index (1 – 7)			.07 (2.50)	
Index of Political Connection (0 – 1)				.65 (3.88)
Index of Political Disconnection (0 – 1)				-.26 (-2.63)
Network Constraint (20 – 100)	-.37 (-3.28)	-.37 (-3.28)	-.379 (-3.39)	-.35 (-3.14)
Controls				
Founder (0, 1)	-.36 (-4.36)	-.36 (-4.32)	-.358 (-4.35)	-.35 (-4.33)
Firm Age (years since founding, 1 - 30)	.04 (6.29)	.04 (6.22)	.04 (6.27)	.04 (6.26)
Business Has R&D Department (0, 1)	.66 (11.12)	.65 (11.03)	.64 (11.02)	.62 (10.51)
Entertainment & Travel Costs (0 – 14)	-.13 (-6.05)	-.13 (-6.01)	-.13 (-6.06)	-.13 (-6.15)
Level of Success at Founding (z-score)	.42 (6.51)	.41 (6.46)	.42 (6.45)	.38 (5.96)
Intercept	1.29	1.28	.99	1.30
R <sup>2</sup>	.50	.50	.50	.52

Note — These are OLS regressions predicting business success (with fixed effects for the five sample industries and seven sample cities). Huber-White standard errors define t-test in parentheses (using Stata “robust” option). Business success is a z-score principal component of business employees, sales, and patents. Indices of political connection and disconnection are computed with weighted indicators (summary test statistic is 12.27  $F_{(2,681)}$ ,  $P < .001$ ). Results are about the same if the indices are computed giving equal weight to the indicators (4.16, -2.66, 13.55 test statistics respectively for connection, disconnection, and F-test). There is no evidence of the success association with network constraint changing at different levels of political connection or disconnection (1.69  $F_{(2,679)}$ ,  $P \sim .19$  for the two slope adjustments).

# Table 3.

## Predicting Return on Assets

	Model 1	Model 2	Model 3	Model 4
Party Member (0, 1)		-.004 (-0.13)		
Peng-Luo Index (1 – 7)			-.001 (-0.07)	
Index of Political Connection (0 – 1)				-.05 (-0.82)
Index of Political Disconnection (0 – 1)				-.09 (-2.11)
Network Constraint (20 – 100)	-.09 (-2.55)	-.08 (-2.58)	-.08 (-2.55)	-.08 (-2.24)
Controls				
Founder (0, 1)	-.04 (-1.44)	-.04 (-1.43)	-.04 (-1.44)	-.04 (-1.38)
Firm Age (years since founding, 1 - 30)	-.01 (-3.37)	-.01 (-3.28)	-.01 (-3.35)	-.01 (-3.25)
Business Has R&D Department (0, 1)	.04 (1.75)	.04 (1.74)	.04 (1.74)	.04 (1.51)
Entertainment & Travel Costs (0 – 14)	-.01 (-2.21)	-.01 (-2.24)	-.01 (-2.25)	-.01 (-2.25)
Level of Success at Founding (z-score)	.003 (0.29)	.004 (0.30)	.003 (0.29)	.004 (0.33)
Intercept	.78	.79	.79	.80
R <sup>2</sup>	.28	.28	.28	.28

Note — These are OLS regressions predicting return on assets (with fixed effects for the five sample industries and seven sample cities). Huber-White standard errors define t-test in parentheses (using Stata “robust” option). Indices of political connection and disconnection are computed with weighted indicators (summary test statistic is 3.77  $F_{(2,681)}$ ,  $P \sim .02$ ). Results are about the same if the indices are computed giving equal weight to the indicators (-.065 -1.95, 3.13 test statistics respectively for connection, disconnection, and F-test). There is no evidence of the success association with network constraint changing at different levels of political connection or disconnection (2.62  $F_{(2,679)}$ ,  $P \sim .07$  for the two slope adjustments).

# Table 4.

## Predicting Government Assistance

	Model 1	Model 2	Model 3	Model 4
Party Member (0, 1)		.39 (2.23)		
Peng-Luo Index (1 – 7)			.32 (3.55)	
Index of Political Connection (0 – 1)				1.26 (2.46)
Index of Political Disconnection (0 – 1)				-.91 (-2.90)
Network Constraint (20 – 100)	.24 (0.68)	.24 (0.71)	.19 (0.54)	.33 (0.96)
Controls				
Founder (0, 1)	-.18 (-0.85)	-.18 (-0.86)	-.15 (-0.74)	-.14 (-0.67)
Firm Age (years since founding, 1 - 30)	-.01 (-0.63)	-.01 (-0.71)	-.01 (-0.64)	-.01 (-0.76)
Business Has R&D Department (0, 1)	.66 (4.21)	.65 (4.11)	.65 (4.09)	.59 (3.69)
Entertainment & Travel Costs (0 – 14)	.09 (1.72)	.09 (1.75)	.10 (1.92)	.10 (1.83)
Level of Success at Founding (z-score)	.06 (0.94)	.04 (0.63)	.05 (0.85)	-.03 (-0.45)
Intercepts	1.33 2.35 3.40	1.44 2.46 3.51	2.79 3.82 4.89	1.33 2.37 3.44
Pseudo R <sup>2</sup>	.04	.04	.05	.05

Note — These are ordinal logit regressions predicting the number (0, 1, 2, 3+) of kinds of issues on which a business received special assistance from a government agency or official (with fixed effects for the five sample industries and seven sample cities). Huber-White standard errors define z-score test statistics in parentheses (using Stata “robust” option). Indices of political connection and disconnection are computed with weighted indicators (16.79 chi-square, 2 d.f.,  $P < .001$ ). Results are about the same if the indices are computed giving equal weight to the indicators (18.07 chi-square, 2 d.f.,  $P < .001$ ). There is evidence that the success association with network constraint changes at different levels of political connection or disconnection (16.79 chi-square, 2 d.f.,  $P < .001$ , see Figure 6).

## Table 5. Predicting Government Assistance on Domestic, Foreigner, and Customer Issues

Political Connection Predictor	Kinds of Issues on Which Help Is Predicted		
	Domestic Issues (39.9%)	Foreigner Issues (8.0%)	Identify Potential Customers (22.3%)
Party Member (Model 2)	.42 (2.39)	.03 (0.08)	.28 (1.27)
Peng-Luo Index (Model 3)	.31 (3.32)	.51 (2.53)	.21 (1.86)
Political Connection (Model 4)	1.17 (2.25)	.31 (0.34)	.34 (0.58)
Political Disconnection (Model 4)	-1.06 (-3.01)	-1.53 (-2.19)	-1.53 (-3.91)
Summary Chi-Square test for political connection/disconnection	17.79 P < .001	5.51 P ~ .06	16.48 P < .001

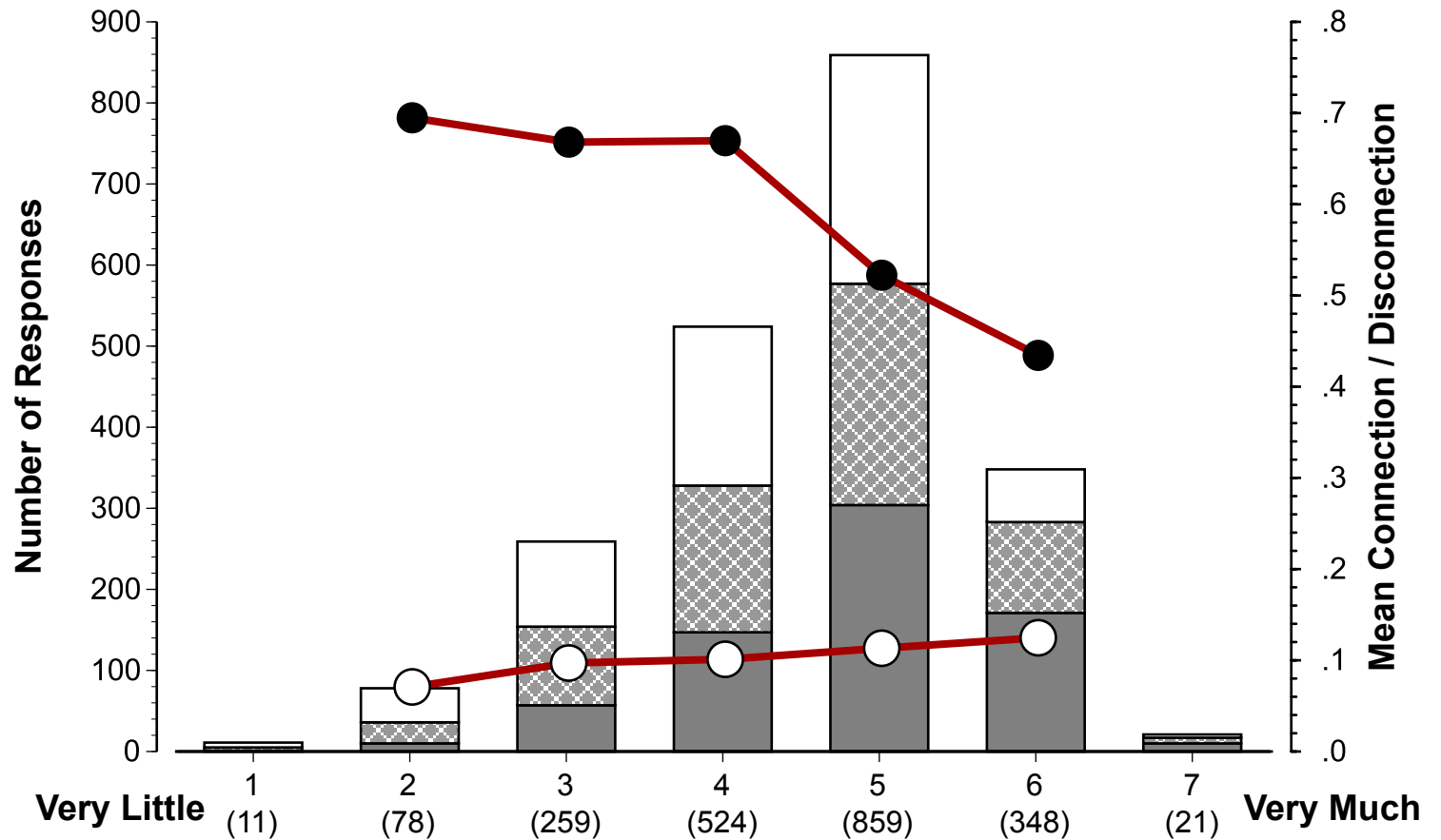
NOTE — These are results from models in Table 4 here predicting specific kinds of government assistance. Rows distinguish the political connection predictors. Columns distinguish kinds of government help. For example the .42 in the first cell is the logit coefficient for Party predicting who receives government help on the five kinds of domestic issues in Figure 4, holding constant the other variables in Model 2 in Table 4. Ordinal logit models predict four levels of help on domestic issues and foreigner issues, just like the dependent variable in Table 4. In the third column, government help in identifying potential customers, foreign or domestic, is a binary variable so results in the third column are from logit models with the control variables in Table 4. Huber-White standard errors define z-score test statistics in parentheses (using Stata “robust” option). The chi-square tests for variance predicted by the indices of political connection and disconnection have two degrees of freedom.

# Table 6. Predicting Five-Year Survival versus Going Dormant, or Death

	Model 5	Model 6	Model 7	Model 8
Party Member (0, 1)		-.24 (-1.01)		
Peng-Luo Index (1 – 7)			.01 (0.07)	
Index of Political Connection (0 – 1)				-.69 (-1.05)
Index of Political Disconnection (0 – 1)				-.36 (-0.96)
Log Network Constraint (20 – 100)	-1.69 (-3.05)	-1.67 (-3.00)	-1.71 (-3.06)	-1.63 (-2.95)
Less Successful in 2011 (0, 1)	-6.53 (-2.04)	-6.40 (-2.00)	-6.58 (-2.05)	-6.39 (-1.99)
Less Successful x Log Network Constraint	1.61 (2.02)	1.58 (1.99)	1.62 (2.03)	1.58 (1.97)
Controls				
Founder (0, 1)	-.77 (-2.73)	-.78 (-2.75)	-.78 (-2.74)	-.76 (-2.69)
Firm Age (years since founding, 1 - 30)	.003 (0.14)	.004 (0.19)	.003 (0.13)	.005 (0.21)
Business Has R&D Department (0, 1)	.67 (3.12)	.67 (3.15)	.67 (3.12)	.66 (3.10)
Entertainment & Travel Costs (0 – 14)	-.08 (-1.19)	-.08 (-1.19)	-.08 (-1.19)	-.08 (-1.16)
Level of Success at Founding (z-score)	.28 (2.35)	.30 (2.36)	.28 (2.35)	.33 (2.33)
Intercept	7.22	7.16	7.25	7.22
Pseudo R <sup>2</sup>	.08	.08	.08	.08

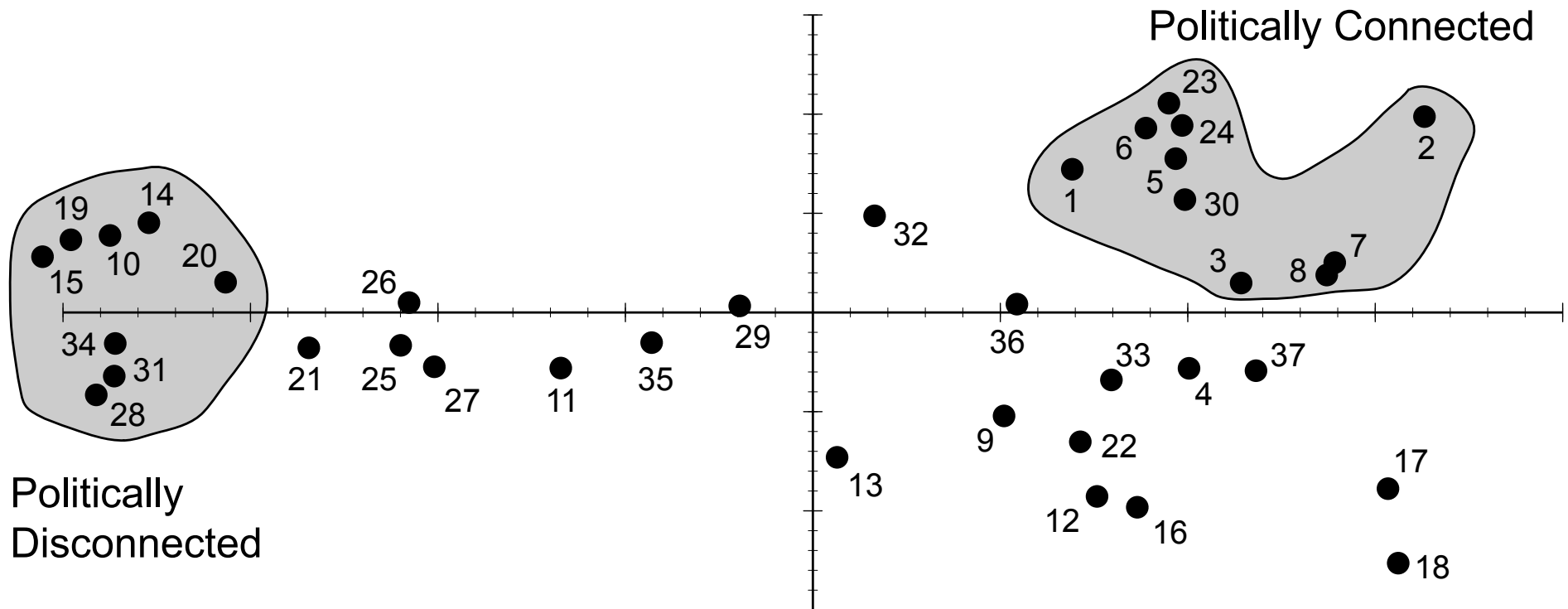
Note — Results are from multinomial logit regression predicting whether a business observed in 2012 is alive, dormant, or dead in 2017 (with fixed effects for the five sample industries and seven sample cities). Equations predicting the “alive” outcome are presented. Huber-White standard errors define z-score test statistics in parentheses (using Stata “robust” option). Indices of connection and disconnection are computed with weighted indicators (summary test statistic is 2.30 chi-square, 4 d.f.,  $P \sim .68$ ). Results are about the same if the indices are computed giving equal weight to the indicators (2.28 chi-square, 4 d.f.,  $P \sim .68$ ). There is no evidence of slope adjustments to the connection and disconnection effects (2.29 chi-square, 4 d.f.,  $P \sim .68$ )

“Please circle the number best describing the extent to which you and your firm currently utilize *guanxi* connections with different government authorities (7-point scale, from very little to very much):  with various levels of political governments,  with industrial authorities,  with other government authorities, such as taxation bureaus, banks, industrial & commercial administrative bureaus, and the like.”



**Figure 1. Peng-Luo Index of Using Government *Guanxi***

NOTE — Three questions asked for the Peng-Luo Index are given to the left. Response frequencies are stacked in the graph (for a total of 3 x 700 responses). Black dots show means on index of political disconnection. White dots show means on index of political connection.



**Characteristics of Political Disconnection:**

- (15) Do not know any municipal cadres
- (19) Only indirect contact with municipal cadres
- (28) Small business (excluded from index)
- (10) Do not know any county cadres
- (31) Management owns 100% of the business
- (34) No government assistance (excluded from index)
- (14) Only indirect contact with county cadres
- (20) No use of government *guanxi* (low Peng-Luo Index)

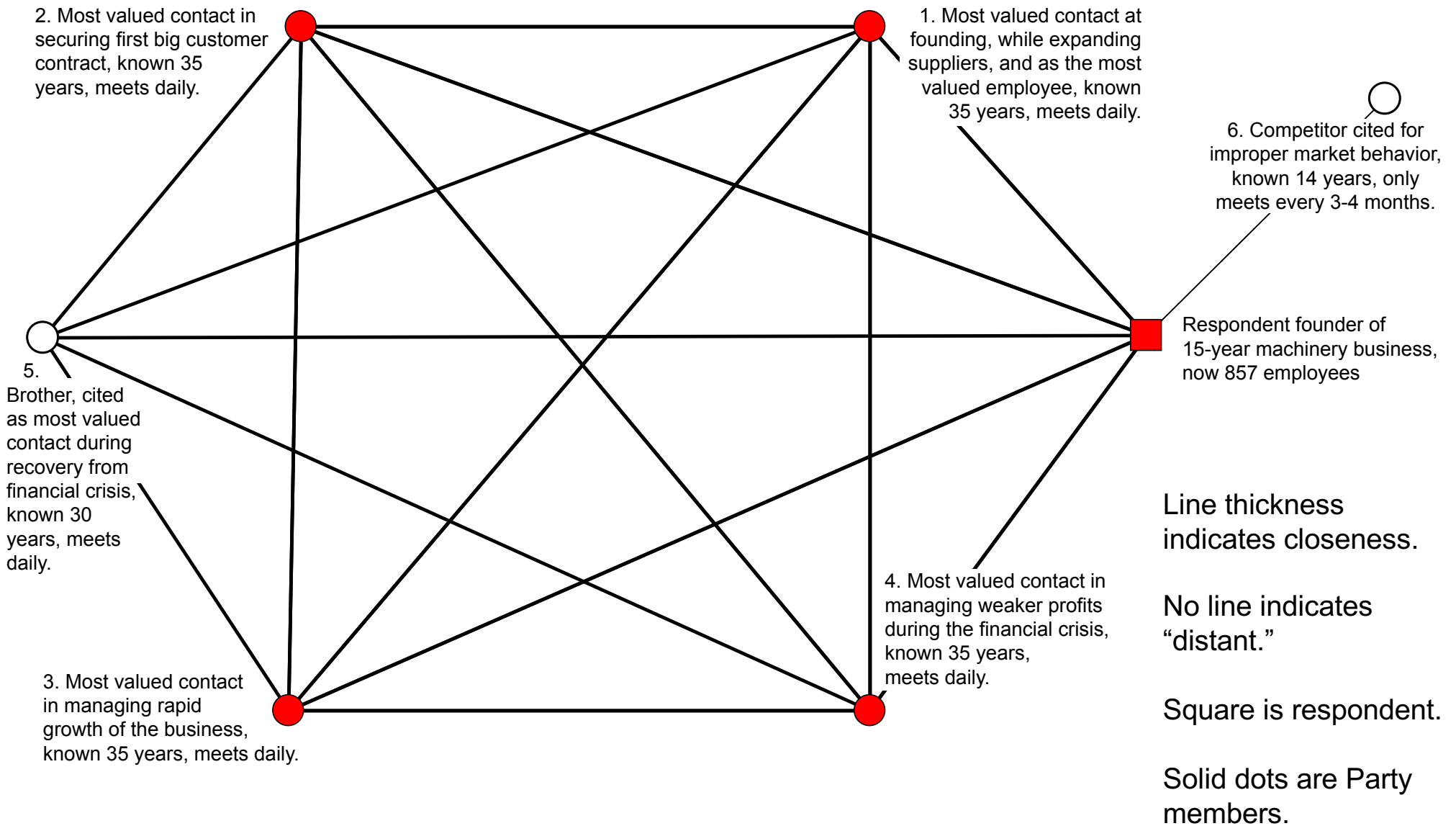
**Characteristics of Political Connection:**

- ( 2) Party official (more than just a member)
- ( 7) Has been a cadre in government
- ( 8) Cites key business contacts in the Party
- ( 3) Member People’s Congress or PPCC
- (24) Business regularly funds Party activities
- (30) Large business (excluded from index)
- ( 5) Party member when founded the business
- (23) Party has organization within the business
- ( 6) Former manager in state-owned enterprise
- ( 1) Currently a Party member

**Figure 2. Distinguishing Levels of Political Connection**

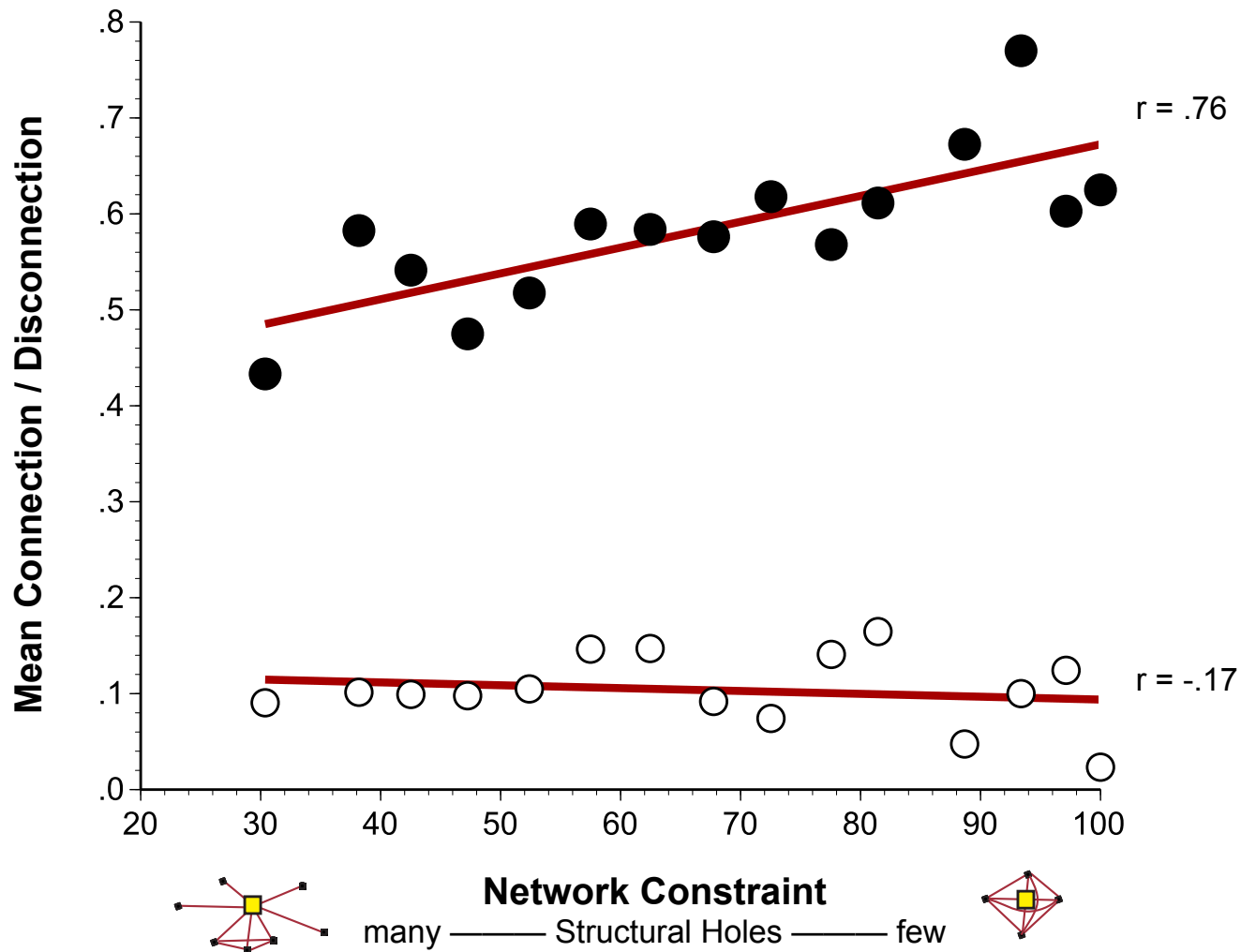
NOTE – Classical multidimensional scaling of Jaccard coefficients measuring the co-occurrence of the 37 indicator characteristics in Table 1 (across 700 CEOs). Axes are proportional in length to the eigenvalues defining them (5.11 for horizontal axis, 2.00 for the vertical). Axes cross at their zero point. The two displayed dimensions describe 76% of the variance in the indicators. Listed indicator characteristics of political connection and disconnection are ranked from strongest to weakest.





**Figure 3.**

# One Entrepreneur's Network of Key Business Contacts



**Figure 4.**

## Only Political Disconnection Increases with Level of Constraint in an Entrepreneur's Business Network

NOTE — Plotted scores are averaged within five-point intervals of network constraint. Correlations are computed from the plotted data. Black dots show means on index of political disconnection. White dots show means on index of political connection.

$$Y = 1.97 - .55 \text{ Log (NC)} \\ (-3.78)$$

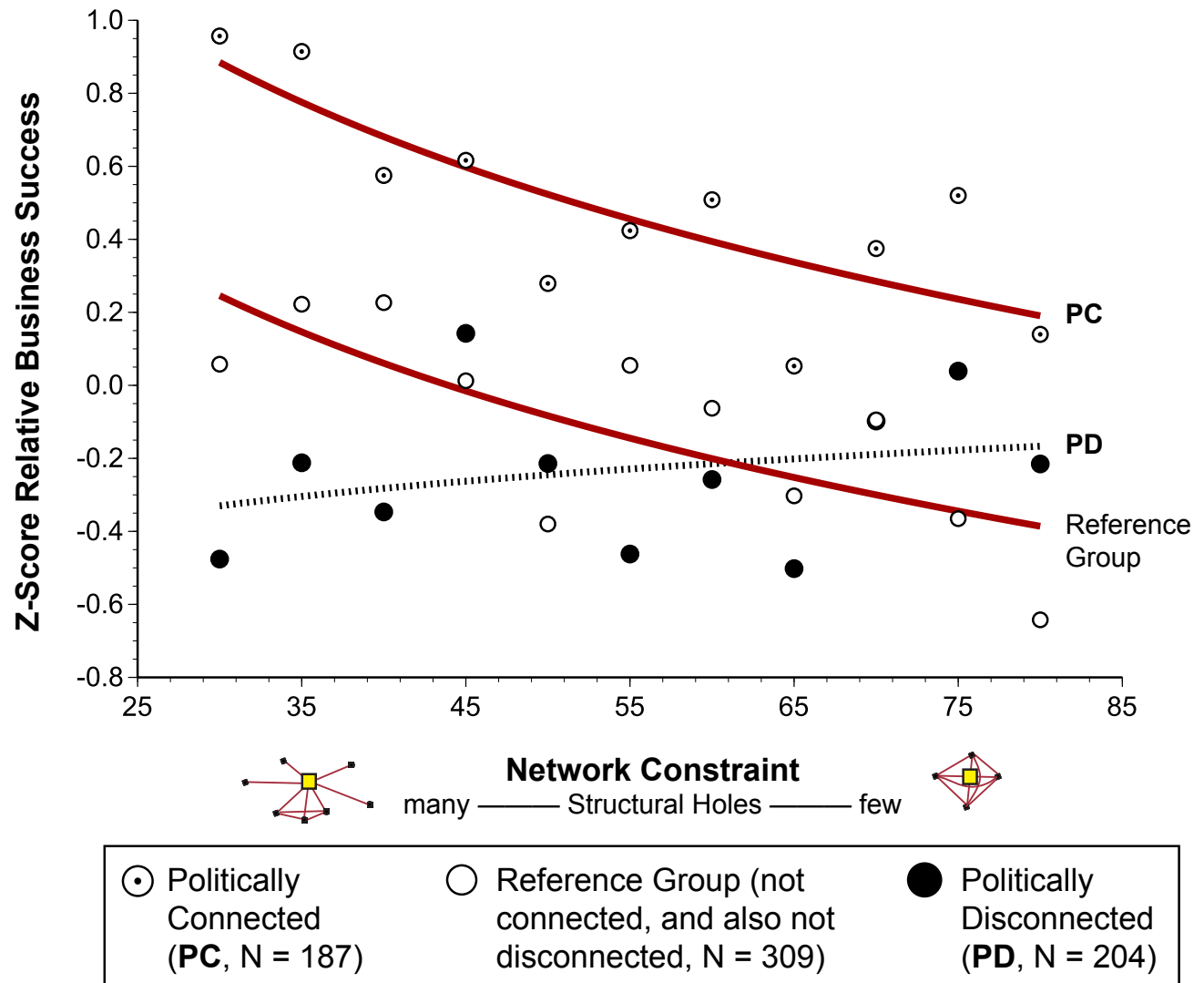
$$+ .33 \text{ PC} \\ (4.95)$$

$$- .03 [\text{PC} \times \text{Network}] \\ (-.10)$$

$$- .09 \text{ PD} \\ (-1.43)$$

$$+ 0.65 [\text{PD} \times \text{Network}] \\ (3.05)$$

$$+ \sum_j b_j \text{ Control}_j + \text{residual}$$

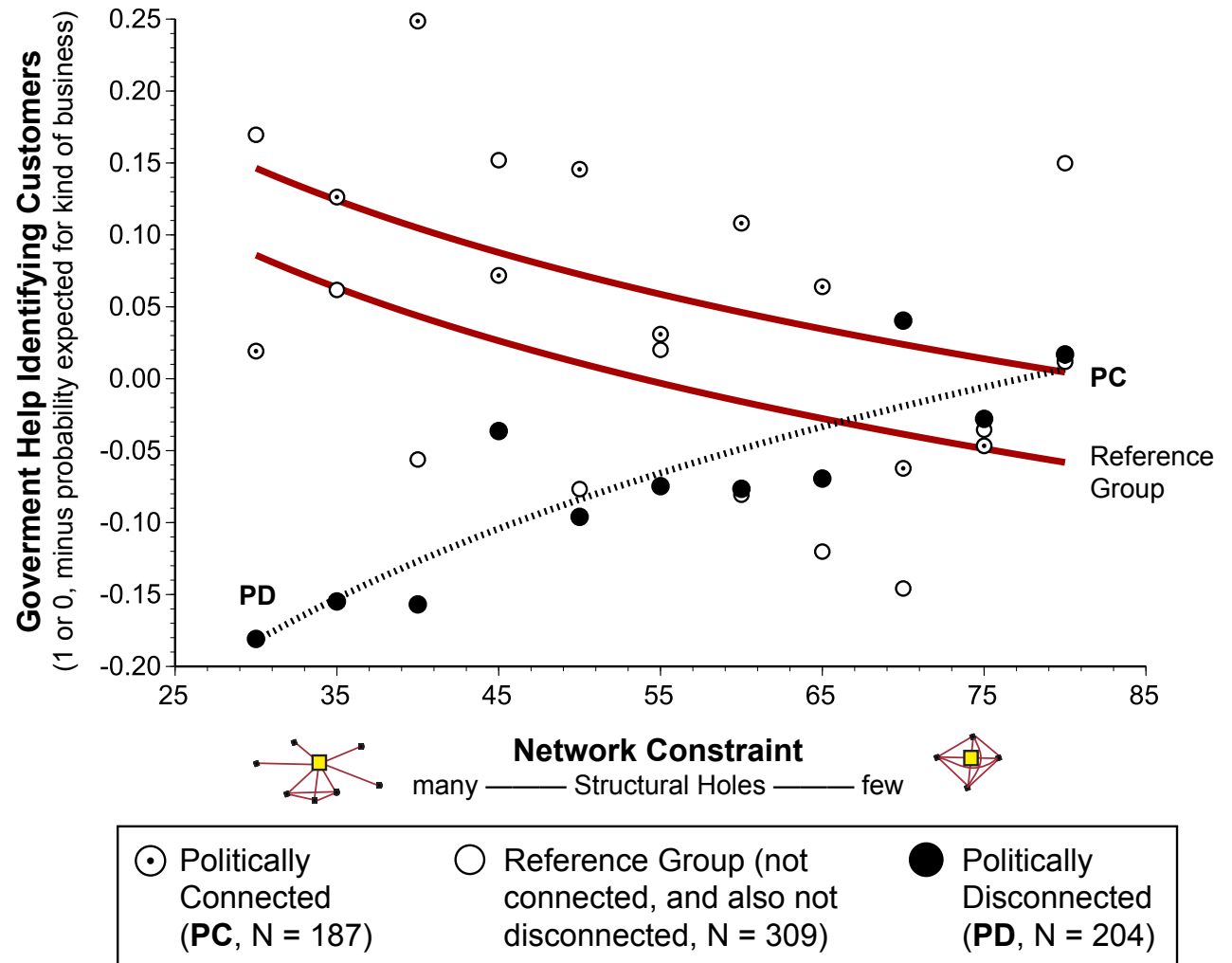


**Figure 5.**

## Business Success by Network and Political Connection

NOTE — Y is z-score business success in Table 3. Vertical axis in graph is Y adjusted for control variables in Table 3, so axis measures success relative to similar businesses. Plotted scores are averages on vertical axis within five-point intervals of network constraint. Rare levels of constraint over 80 points are truncated to 80 points for the graph. Regression lines in the graph are based on the plotted data. In the OLS regression equation to the left (.53 R<sup>2</sup>), NC is network constraint, PC is a dummy variable (equals 1 for entrepreneurs nonzero on the index of political connection and below median on political disconnection), and PD is a dummy variable (equals 1 for entrepreneurs zero on the index of political connection and above median on political disconnection). Test statistics are in parentheses. Reference group is entrepreneurs who have a zero on PC and PD. The two interaction variables are a dummy variable times (log network constraint minus its mean).

$$\begin{aligned}
 Y &= 1.66 - .74 \text{ Log (NC)} \\
 &\quad (-1.17) \\
 &+ .54 \text{ PC} \\
 &\quad (2.39) \\
 &- .09 [\text{PC} \times \text{Network}] \\
 &\quad (-.10) \\
 &- .83 \text{ PD} \\
 &\quad (-2.89) \\
 &+ 3.38 [\text{PD} \times \text{Network}] \\
 &\quad (3.14) \\
 &+ \sum_j b_j \text{ Control}_j + \text{residual}
 \end{aligned}$$



**Figure 6.**  
**Government Help by Network and Political Connection**

NOTE — Y is the logit of receiving government assistance in locating customers (third column in Table 6). Vertical axis in graph is Y adjusted for control variables in Table 5, so axis measures odds of getting help relative to similar businesses. Plotted scores are averages on vertical axis within five-point intervals of network constraint. Rare levels of constraint over 80 points are truncated to 80 points for the graph. Regression lines in the graph are based on the plotted data. In the logit regression equation to the left, NC is network constraint, PC is a dummy variable (1 for people nonzero on the index of political connection and below median on political disconnection), and PD is a dummy variable (1 for people zero on the index of political connection and above median on political disconnection). Test statistics are in parentheses. Reference group is entrepreneurs with a zero on PC and PD. The two interaction variables are a dummy variable times (log network constraint minus its mean).