Neighborhood Matters: The Impact of Location on Broad Based Stock Option Plans

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Abstract:

We find that firms grant more options to rank and file workers when a higher fraction of firms in the local community (firms located within 100 or 250 km of its headquarters) grant more broad based options. The neighborhood's option granting practices matter most when labor markets are tight and especially when firms want to retain employees by indexing wages to their outside opportunities in the neighboring area. The neighborhood's option granting practices also impact individual firms when the neighborhood has exemplary firms (large, profitable or reputed). However, such peer-effects are not robust to the role of tight labor markets.

We thank our respective schools for financial support. All errors are ours.

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"We give options to rank and file employees because Microsoft does"
A senior executive from a Seattle based retailing firm in an interview with the authors (1/27/05).

1.0 Introduction

This paper provides the first evidence on the importance of geographic effects on broad based stock option plans. The question of why broad based option plans are so prevalent in the real world remains a puzzle for standard economic theory. Broad based options are a costly form of compensation relative to other alternatives, such as cash, because: (i) employees can expect to only garner trivial personal gains from their contribution to firm value or profits (Oyer 2004); and (ii) holding stock options in their employer exposes employees to stock price risk which is highly correlated with the risk in their human capital (Lambert, Larcker and Verrechhia 1991, Muelbroek 2001, Hall and Murphy 2002). Yet, broad based equity plans are commonly observed in corporate America. We show that the geographically segmented labor markets for rank and file talent is a hitherto unexplored explanation for why we observe broad-based option plans.

Using data on rank and file option grants from over 9,000 firm-years from *Execucomp* over the years 1992-2004 intersected with geographical data gathered from several sources such as the U.S. Census Bureau, we find that firms grant more options to rank and file workers when a higher fraction of firms in the local community (firms located within a 100 or a 250 km of its headquarters) grant more broad based options. This result holds regardless of whether we analyze aggregate state-level, or county-level, or individual firm-level patterns in broad-based option usage. We recognize that firms of certain industries cluster in certain geographical areas. However, the effect of the local community's option usage on an individual firm's holds even after controlling for industry membership and other traditional variables known to account for broad based option usage such as firm size, investment opportunity, leverage, cash constraints of the firm, its tax status and its stock return performance.

The neighborhood's option granting practices can affect an individual firm's option usage for two reasons: (i) influence through the labor market circumscribed by firm's geographical neighborhood; and (ii) influence of other exemplary peer firms in the neighborhood.
Related to the first point, assume rank and file labor is scarce in a geographical area and workers are reluctant to move outside that area.[2] These geographical preferences may arise due to several factors such as family commitments and personal preferences.[3] Stock options enable an individual firm to attract and retain rank and file talent in their firm in such tight geographically segmented labor markets. If stock options are employed by other firms in the neighborhood to also attract and retain rank and file talent, we expect to observe rank and file option usage and tight labor markets to be clustered in certain geographical areas.

A more nuanced aspect of the tight labor market argument stems from Oyer's (2004) "wage indexation" theory. Oyer (2004) argues that in tight labor markets associated with a high probability of getting an outside offer, stock options could index an employee's current wage to his outside opportunities and facilitate retention. Assuming that workers are reluctant to relocate outside of a neighborhood, scarcity of labor will increase workers' outside opportunities, and the probability of pursuing these opportunities. However, if the current employer's stock price is correlated with the stock prices of neighboring firms and therefore to such outside offers, the unrealized gains on his unvested stock options are likely to be high when the outside opportunities are high. This reduces his incentives to move and hence facilitates retention. Empirically, we expect firms whose stock prices co-move more with other firms' stock prices in

[2] Scarcity of labor may arise due to clustering of industrial activity in some regions due to superior infrastructure or natural advantages (see Ellison and Glaeser (1997)).
[3] As long as geographical preferences imply that employees are more likely to consider an outside offers within the same geographical area relative to offers that are geographically further off, our argument holds.

the geographical area, captured in this paper by estimated local betas, are more likely to rely on broad-based options.

Another reason to expect a role for geography in broad based option usage stems from models of peer-influence such as Glaeser, Sacerdote and Scheinkman (1996) which suggest that certain exemplary firms ("fixed agents") influence the behavior of other agents in the neighborhood but cannot themselves be influenced. As indicated in the opening quote, a firm domiciled in the Seattle area might grant broad based options because Microsoft, its neighboring firm and potentially a "fixed agent," until recently had a broad based option program. We employ the maximum market capitalization, profitability and the presence of a Fortune 500 firm in a firm's 100-mile neighborhood as a proxy for such exemplar firms.

Our empirical results find consistent and strong support for the role of tight labor markets in an individual firm's option granting decisions. In particular, we find that the neighborhood's option granting affects an individual firm's option grants when (i) the neighborhood has more rather than fewer firms, a proxy for the demand of rank and file labor; and (ii) the firm has a higher local beta, consistent with Oyer's (2004) wage indexation story. Further, the effect of a firm's local beta on its broad based options usage is statistically significant only when the firm faces a tight labor market in its neighborhood.

There is some empirical support for the peer-influence story in that the neighborhood's option granting practices matter to an individual firm's option granting when exemplar firms are present in its neighborhood. However, this result is not robust to the introduction of proxies for tight labor markets, suggesting, in effect, that tight labor markets, in general, and Oyer's (2004) wage indexation explanation in the presence of tight labor markets, in particular, are the key reasons why the community's broad based option grants explain option usage for individual firms.

We contribute to a significant body of research that documents the existence of "neighborhood effects" or "peer effects" on various aspects of individual behavior or the emerging research on corporate behavior. Audretsch and Stephan (1996) document the importance of geographical proximity, of scientists and their firms, for innovative activity. Hong, Kubik and Stein (2004) and Brown, Ivkovic, Smith and Weisbenner (2004) show that more "social" individuals, namely those that interact frequently with neighbors or attend church, and a higher equity ownership by members of the community are more likely to participate in equity markets.[4] We find that the firm's location matters after controlling for industry membership and other firm characteristics traditionally known to empirically explain the prevalence of broad based option plans. Perhaps more important, we document that tight geographically segmented labor markets might be an important, but hitherto unexplored, reason why broad based option plans exist.

The paper proceeds as follows. In section 2, we document that the importance of geographical neighborhood to broad based option plan usage at the state, county as well as the individual firm level. Section 3 explores why the community's option usage matters to a firm's option grants. Section 4 concludes.

2.0 Neighborhood matters

We begin by providing evidence that a firm's option grants are affected by the option granting practices of firms in its geographical neighborhood. In particular, we examine the usage of broad based option plans in firms covered by the *Execucomp* database over the years 1992-2004. The usage of rank and file option grants is measured as the number of rank and file options granted in a year scaled by total shares outstanding. As the number of rank and file options

[4] There is a large recent literature that shows the importance of geographic proximity due to associated information advantages. See for e.g., Coval and Moskowitz (1999, 2001), Grinblatt and Keloharju (2001), Peterson and Rajan (2002), Lougran and Schulz (2004), Feng and Seasholes (2005), Malloy (2005), Kedia et al. (2005), and Kedia and Rajgopal (2005).

granted is not reported in *Execucomp* we back it out from the CEO's share of total options grant reported by *Execucomp*.[5] The 2,477 unique firms in the sample with over 14,370 years of data grant, on average, 2.82% of their shares outstanding as options to rank and file employees every year. The median grants are lower at 1.32%.

We use Compustat to obtain state and county of the firm's headquarters. Column (4) of Table 1 Panel A displays the average fraction of rank and file options granted by state. There is wide across-state variation in option grants, as expected. Among states that have at least 200 firm-years listed on *Execucomp*, rank and file option grants are most pronounced in California (5.13%), Massachusetts (4.49%), Colorado (2.94%), and Washington (2.92%). Firms with the least reliance on rank and file options include Wisconsin (1.28%), North Carolina (1.68%), Ohio (1.74%) and Vermont (1.83%).

There is significant evidence in prior literature (Core and Guay 2001, Ittner, Larcker and Lambert 2003, Oyer and Schaefer 2005) that industry is one of the most important factors that explain the intensity of broad based option usage. This can be seen from panel B of Table 1 where we report grants of rank and file options, sorted on two digit NAICS codes. As expected, Information (5.7%), Professional, Scientific and Technical services (4.58%) are leaders in option grants whereas Utilities (0.76%) and Transportation services (1.78%) rely the least on rank and file options. Further, there is also significant evidence in prior literature that industries tend to be geographically concentrated (e.g., Audretsch and Feldman 1996, Audretsch and Stephan 1996; and Ellison and Glaeser 1997). It is therefore, natural to ask whether location patterns in option granting merely reflect industry differences in options usage.

[5] We derive the total options granted by the firm from the number of options granted to the CEO and the CEO's share of total option grants. An estimate of the total options granted can similarly be obtained from the other top four executive's share of total options granted. When these estimates of total options granted are not within 1% of each other we discard the observation, as the data is not reliable. Number of rank and file options is obtained by subtracting the total number of options granted to executives from the total options granted in the year.

To investigate whether location is nothing but an industry effect in another guise, we sort on large and small option states using the median rank and file option grants across states as a cutoff. Next, we independently sort on low and high option intensive industries using median rank and file option grants across all industries as the cutoff. In the resultant 2 x 2 location by industry classification shown in Table 2, we report the average rank and file option grants corresponding to the respective cell. As expected, the average rank and file option grants for firms that fall in large option states and high option intensive industries (4.33%) significantly exceed option grants for firms in small option states (2.77%) and low option industries (1.09%). The interesting finding, however, is that keeping option intensity at the industry level constant, firms in large option states grant more broad based options than firms in small option states. In particular, in high option intensive industries, the average option grants for large option states (4.33%) is substantially higher than grants in small option states (2.77%) (t-statistic for the difference = 9.41). Similarly, under low option intensive industries, the average option grants for large option states (1.26%) is higher than grants in small option states (1.09%) (t-statistic for the difference = 3.74). Similar inferences follow when median grants statistics are considered instead of means. If location were merely a reflection of the industry effect, we should not have observed these patterns.

To control for industry, we calculate and use industry adjusted rank and file option grants. In particular, we subtract the average fraction of rank and file options granted by all firms in the relevant two digit NAICS industry code in that year from a firm's options grant. The industry-adjusted measure of rank and file option grants therefore captures the deviation in the grant of these options from industry average in that year. When this deviation is positive (negative), the share of option grants exceeds (lags) the rate dictated by its industry composition.

Industry adjusting rank and file options grants, reported in column 5 of Table 1, does not alter the state rankings that much. Again, California (1.94%), Massachusetts (1.19%) and

Washington (0.24%) are the leaders with positive industry-adjusted option users while Wisconsin (-1.50%), Michigan (-1.1%) and Ohio (-0.99%) are the laggards. In sum, the data suggest that in states such as California, Massachusetts and Washington, a worker is likely to get stock options even if he works for an industry that does not give options. In contrast, a worker in say a technology firm in states such as Wisconsin, Michigan and Ohio, is likely to get fewer options than the industry average.

2.1 County Level Evidence

A similar pattern emerges when we examine option grants at a finer spatial unit, i.e., the county. Panel B of Table 2 provides univariate evidence on the rank and file option grants by county. In particular, we sort counties into quintiles based on the county's option usage. A county's option usage is the average industry adjusted option grants for all firms in the county. To capture the impact of the neighborhood, we examine the rank and file option grants in all counties within 100 and 250 kilometers. We estimate the distance between counties based on the latitude and longitude of counties, obtained from the U S Census Bureau Gazetteer.[6] We pick the cutoffs of 100 and 250 kilometers because previous research relies on these cutoffs to proxy for geographic proximity (e.g., Coval and Moskowitz 2001, Malloy 2005 and Kedia et al. 2005).

Panel B of Table 2 shows that county's usage of rank and file options is significantly correlated with neighborhood's option granting practices. In particular, counties with the lowest option usage are located in neighborhoods with average industry adjusted rank and file option grant of -1.09%. In contrast, counties with the highest option usage are located in neighborhoods with average industry adjusted option grant of 2.1%. This difference is highly significant with a

[6] The Haversine Formula is used to calculate the distance d_{12} between counties 1 and 2. Distance d_{12} is calculated as $d_{12} = R \times 2 \times \arcsin(\min(1, \sqrt{a}))$ where R is the radius of the earth ($\approx$ 6378 kilometers) and $a = (\sin(dlat/2))^2 + \cos(lat1) \times \cos(lat2) \times (\sin(dlon/2))^2$. In the above expression $dlat = lat2 - lat1$ and $dlon = lon2 - lon1$. Lat1 and lon1 are the latitude and longitude of County 1 and lat2 and lon2 are the latitude and longitude of the second county.

t-statistic of 6.42. The same inference holds when neighboring region is defined as all counties within 250 km and when median, instead of the mean, grant of options are considered. This suggests that the neighborhood's option granting practices affect a county's option grants.

The clustering of high rank and file option grants at the county level could be attributable to omitted county characteristics like growth and quality of labor force. Table 3 displays the effect of neighborhood after controlling for county characteristics obtained from the U.S. Census Bureau. Industry adjusted usage of options in the neighborhood continue to be significantly correlated with the county's industry adjusted rank and file option grants even after controlling for these county characteristics. The effect of the neighborhood is stronger when there are fewer firms in the county (Model 2) and is robust to a different definition of neighborhood (Model 3). We find that county level rank and file option grants are positively associated with both the number of firms in the county as well as the population growth in the county. Interestingly, we also find that the more educated the labor force, as captured by the fraction of the population that has a bachelor's degree or higher, the greater is the rank and file option grants. This suggests that local labor market conditions might potentially explain the usage of rank and file options.

2.2 Firm Level Evidence

Prior literature has documented the importance of firm-level characteristics for granting broad based options such as firm size, cash constraints, tax status, investment opportunity set and lagged performance (Core and Guay 2001). Columns (1) and (2) of Table 4 presents results from a cross sectional regression of industry-adjusted rank and file option grants, computed at the firm-year level, on several standard determinants of firm-level rank and file option grants and two location variables. Although the dependent variable is industry-adjusted, we insert industry dummies as a precaution and year dummies to account for time-trends in option granting behavior. The sample ranges from 9,444 firm-years to 9,602 firm-years depending on data availability and represents the intersection of *Execucomp* for options data and *Compustat* for data on firm characteristics the period 1992-2004.

There is a strong positive relation between industry-adjusted rank and file option grants and the average industry-adjusted option grants of firms located in the 100 kilometer and the 250 kilometer neighborhood (both significant at p = 0.00 in Columns 1 and 2 respectively). Note that these results obtain after controlling for the traditional factors known to be associated with rank and file option grants. Turning to the traditional factors, consistent with Core and Guay (2001), we find that rank and file option grants are higher for (i) firms with a higher interest burden, presumably because such firms face cash shortfalls and hence substitute option pay for cash compensation and also because firms with higher interest burden want to conserve accounting earnings by not expensing options for accounting purposes; (ii) higher R&D, a proxy for investment opportunity set, consistent with Smith and Watts (1992); (iii) firms with lower debt; larger firms and firms with fewer employees; and (iv) firms with lower marginal tax rates because deferred compensation and hence the deferred tax deduction is more attractive from the firm's standpoint. In sum, the neighborhood's option granting practices matter to an individual firm's reliance on options.

3.0 Why does location matter?

A firm's location might impact its option granting practices because other firms in the neighborhood influence a firm's decisions. This can be due to at least two reasons: (i) labor market influence; and (ii) influence from exemplary peers. We explore these in greater detail below.

3.1 Tight labor markets

Consider a worker who is reluctant to move outside a geographical neighborhood but is not averse to moving within the neighborhood, creating, in effect, geographically segmented labor markets.[7] This preference to stay in a geographic area could arise due to several factors such as family commitments and personal preferences. Further, some geographical areas might be characterized by tight labor markets either due to clustering of industrial activity in some regions on account of superior infrastructure or natural advantages or an industry shock (e.g., a boom in demand for software talent in the Bay area). In these regions, the demand for rank and file workers exceeds (even temporarily) the supply of such labor thereby increasing the probability with which a worker receives an outside job offer, often from a firm in the same neighborhood. Stock option grants to rank and file employees may be used in these cases for several reasons.

Lermann and Schmidt (2004) in a study published by the Department of Labor report that U.S. employers adapted to the tight labor markets, especially in the second half of the 1990s, by offering incentives such as bonuses and stock options to attract workers. Stock options can be used to attract new workers to a company especially in tight labor markets because the equilibrium wage in such markets is higher. Such a higher equilibrium wage might get reflected in stock options grants made on top of cash compensation (Mehran and Tracy 2001). Aside from the recruiting role, it is well know that stock options can be used to retain employees as they vest over several years. Thus, firms are more likely to rely on rank and file options in a tight labor market to both attract and retain labor.

Oyer (2004) presents a more nuanced argument for why stock options are given to rank and file employees in a tight labor market. When an employee with a fixed wage has an outside offer, the firm has to renegotiate his compensation to satisfy his new reservation wage and to retain him as an employee. Oyer (2004) argues that if renegotiation is difficult and turnover costly, offering options may be a way to effectively index his compensation to his outside opportunities. In particular, if the firm's stock price is correlated with an employee outside

[7] As long as employees are more likely to move within a geographical area rather than out of it, our argument holds.

opportunities then his stock options will be in-the-money, and his total compensation high when the outside opportunities are good. Similarly, in states of the world when the firm's stock price is low, the employee is likely to not leave the firm even though his options are out-of-money as in these states of the world, his outside opportunities are also likely to be low. Therefore in geographic areas characterized by tight labor markets a firm may offer stock options to their workers to index their compensation to their increased outside opportunities as suggested by Oyer (2004). As all firms in the local areas will find it optimal to grant stock options for retention purposes, usage of stock options is geographically clustered. The efficacy of stock options as a retention device, as per Oyer (2004) argument, is increasing in the correlation of a firm's stock price with the employee's outside opportunities i.e., with the stock price of firms that are potential employers. Consequently, we should observe greater usage of rank and file stock options when the stock prices of local firms exhibit higher co-movement. We use local betas computed by Pirinsky and Wang (2005) to proxy for this co-movement.

Our empirical proxy for a tight local labor market is the number of firms operating in the 100 or 250 km neighborhood. We use all firms on Compustat that are located in the relevant neighborhood to construct this variable. We assume that the larger number of firms in a neighborhood, the greater the demand for rank and file labor, leading to a tighter labor market. We expect the neighborhood's option granting practices to matter more to an individual firm's own option grants in a tight labor market. As seen in Model 1 of Table 5, the coefficient on number of firms located within 250 km is positive and statistically significant (t-statistic =2.13) suggesting that firms grant more options when the labor market is tight, as predicted. The coefficient of the interaction of neighborhood option usage and the number of firms in the neighborhood, is also positive and significant. Thus, the influence of neighborhood's option granting practices on a firm's option usage increases with the tightness of the local labor markets. Interestingly, the coefficient on neighborhood option usage loses significance (t-statistic = 1.52) indicating that the influence of the neighborhood on a firm's option granting is observed only in conjunction with tight labor markets.

Model 2 attempts to convey the same message in a different way. We define labor markets as tight (lax) when the number of firms in the neighboring 250 km happen to be more (less) than the median number of firms in all 250 km units across the county. We find that neighborhood industry adjusted option usage positively impacts a firm's option practices in tight labor markets (t-statistic = 7.27). On the other hand, neighborhood option practices have a surprisingly negative impact when labor markets are lax (t-statistic = -2.54). Similar results are obtained (not reported for brevity) when the neighborhood is defined as a 100km radius around the firm. In summary, the results show that the neighborhood's option granting practices matter to an individual firm's option usage if the firm operates in a tight local labor market.

Next, we test whether higher co-movement of stocks in the local area may induce firms to grant more stock options. As discussed earlier, in this case stock options may index an employee's wage to his outside opportunities. We proxy for the extent of the co-movement of stock price by using local betas computed by Pirinsky and Wang (2005) where the local region is defined as a Metropolitan Service Area (MSA).[8] In particular, Pirinsky and Wang (2005) estimate local betas, β^{LOC}, using the following specification:

$$R_t = \alpha_I + \beta^{LOC} R^{LOC}_t + \beta^{MKT} R^{MKT}_t + \beta^{IND} R^{IND}_t + \varepsilon_{i,t} \qquad (1)$$

where R_t refers to the monthly return of a particular stock, R^{LOC} is the monthly return of the stock's corresponding MSA index, R^{MKT} is the monthly return of the market portfolio and R^{IND} is the monthly return of one of the 46 Fama-French industries corresponding to stock *i*. All returns

[8] We gratefully acknowledge data on local betas from Pirinsky and Wang (2005). As defined by the Office of Management and Budget (OMB), an MSA consists of a core area that contains a substantial population nucleus, together with adjacent communities that have a high degree of social and economic integration with that core. Metropolitan statistical areas include one or more entire counties and some MSAs contain counties from several states. For example, the New York MSA includes counties from four states, New York, New Jersey, Connecticut, and Pennsylvania.

are in excess of monthly T-bill rates.[9] Only 81 to 95 MSAs, of the total 272 MSAs, have at least five publicly traded firms over the sample period 1988 to 2002 allowing the estimation of the local beta by Pirinsky and Wang (2005). The average MSA has around 50 firms operating in the area, while the median number of firms is less than 20.

In essence, Oyer's (2004) wage indexation argument applied to geographically segmented labor markets suggests that firms with larger local betas are more likely to rely on rank and file option grants. Further, this higher usage of options when local betas are high should be seen in tight local labor market. Model 3 of Table 5 shows that, consistent with Oyer's wage indexation argument, the firm's local beta is strongly associated with its industry-adjusted option grants (t-statistic = 3.81). Interestingly, the influence of the 250 km neighborhood's option grants also matters incrementally to local beta (t-statistic = 5.17). Model 4 shows, again consistent with Oyer (2004), that the firm's local beta affects option grants only in a tight labor market (t-statistic = 4.27) and not in a lax labor market. As before, the neighborhood's option granting practices positively affects a firm's option grants only in tight labor markets. Untabulated results indicate that these inferences are robust to using 100 km as the definition of neighborhood. In sum, a firm's reliance on rank and file options increases when its stock prices co-move more with other firms in the geographical neighborhood, especially in tight labor markets.

3.2 Influence based on social interactions

Social interaction theory suggests that an agent's values or available information, on which their decisions are based, may be influenced by others' values and actions. The common premise in this literature is that interaction among many, possibly dissimilar agents, leads to the emergence of collective behaviors and patterns in social and economic systems at an aggregate

[9] To avoid spurious correlations, when calculating the return on the MSA index, the return of the corresponding stock is excluded. Pirinsky and Wang (2005) estimate equation (1) as time-series regressions over three different periods, 1988 to 1992, 1993 to 1997, and 1998 to 2002, such that at least 24 non-missing monthly return observations for a firm enter the regression.

level. In particular, in the first stage a few innovators adopt a practice, then people in contact with the innovators adopt, then people in contact with those people adopt, and so forth until eventually the innovation spreads throughout the society. This general kind of mechanism has been suggested to explain a variety of social behavior, including criminality, having children out of wedlock, and dropping out of high school (Crane, 1991; Glaeser, Sacerdote, and Scheinkman, 1996; Akerlof, 1997; Glaeser and Scheinkman, 2000).

Applied to our context, we hypothesize that the presence of such innovators likely influences other firms in the neighborhood to grant rank and file option grants. For e.g., firms in the Seattle area may have granted broad based options because Microsoft, the leading firm that influences other firms, had adopted such a practice. Note, however, that identifying good empirical proxies for such fixed agents is difficult in practice without access to fine grained time-series data on a sequence of publicly observed actions from innovators and reactions from followers. For estimation purposes, we proxy for such exemplar firms using the following variables: (i) the minimum *Fortune* rank of firms in the 250 km neighborhood of the firm (Min Fortune rank in 250 km). The *Fortune* rank, obtained from Compustat, is a numerical ranking from 1 to 500 based on company sales in each fortune industry listing. We assume that large firms with lower Fortune ranks are most likely to be exemplar firms that others in the neighborhood seek to imitate. Similarly, large firms as proxied by the highest market value of all firms in the 250 km neighborhood (Max Mktval in 250 km) as well as profitable firms, as proxied by the highest profitability of all firms in the 250 km neighborhood (Max op inc/Sales in 250 km) are more likely to be exemplar firms. A firm is more likely to be influenced by the neighborhood's option granting practices if the neighborhood has exemplar firms i.e., very large, very profitable or very visible and reputed firms.

Table 6 provides evidence on the effect of social interactions on a firm's option granting practices. As seen in column 1, neighborhood option usage has a greater influence on firm's option granting practices if the neighborhood has a large Fortune firm. The coefficient is negative as large firms have lower Fortune ranks and is significant. However, this effect of Fortune ranked firms on neighboring firms is not robust to the inclusion of proxies for tight labor markets (See Column 2). The effect of the neighboring option usage exists when labor markets are tight and is not significantly higher when a large Fortune firm is present. Similar results are obtained with other proxies of exemplar firms. As seen in Column 3 and Column 5, neighborhood is more important when it has large firms (as captured by market value of equity) and very profitable firms. However, this impact of large and profitable firms in the neighborhood is explained away by tight labor markets (see Columns 4 and 6). Though at first glance, peer influences from exemplar firms in the neighborhood appear to explain a firm's option granting practices, this inference is not robust to controls for tight labor markets. Labor market conditions in local geographic markets appear to be key reason why rank and file option grants are clustered.

4.0 Conclusions

This paper is the first to show that firms are influenced by the option granting behavior of other firms in their geographical neighborhood. This result holds after controlling for a wide range of firm-level financial and operational characteristics including most importantly, industry membership. We also provide evidence that this geography effect holds because firms seek to attract or retain rank and file employees with their firms via stock options in tight labor markets. Moreover, firms whose stock prices co-move more with others in their neighborhood grant more rank and file options to perhaps ensure that the unrealized gains on their options mirror their outside job opportunities within the geographical area, consistent with Oyer's (2004) "wage indexation" hypothesis. This wage indexation reason works only when the firm faces a tight local labor market, as expected.

A couple of caveats are in order here. First, we have restricted our attention in the paper to rank and file option grants and have argued that such employees are reluctant to move outside a geographical area but are not averse to moving inside that area to entertain alternate job opportunities. We did not consider option grants to top executives because we believe geographical immobility is less defensible for such higher-level employees. Second, several firms are in the midst of reconsidering their broad-based option plans perhaps in view of the new GAAP requirement to expense options or as a consequence of general disenchantment with options in corporate America following the collapse of Enron. It is worth noting, however, that restricted stock with time-bound vesting restrictions, the compensation device that is widely expected to replace broad based options, shares many of the wage indexation properties of broad based options. When the smoke clears and more data about rank and file compensation choices become available in the future, it might be interesting to investigate whether geographical clusters in rank and file compensation continue to be observed.

References

Akerlof, G. 1997. Social distance and social decisions. *Econometrica* 65: 10005-1027

Audretsch, D and M Feldman. 1996. R&D spillovers and the geography of innovation and production. *The American Economic Review*, 86: 630-640.

Audretsch, D., and P. Stephan. 1996. Company-scientist locational links: The case of biotechnology. *The American Economic Review*, Vol. 86 (3), pp. 641-652.

Brown, J.R., Z. Ivković, P. Smith and S. Weisbenner. 2004. Neighbors matter: Community effects and stock Market participation. Working paper, University of Illinois at Urbana Champaign.

Core, J. and W. Guay. 2001. Stock option plans for non-executive employees. *Journal of Financial Economics* 61(2): 253-87

Coval, J. and T. Moskowitz, 1999. Home bias at home: Local equity preference in domestic portfolios. *Journal of Finance*, Vol. 54 (6), pp. 2045-2073.

Coval, J. and T. Moskowitz. 2001. Geography of investment: informed trading and asset prices. *Journal of Political Economy*, Vol. 109 (4), pp. 811-841.

Crane, J. 1991. The epidemic theory of ghettos and neighborhood effects on dropping out and teenage childbearing. *American Journal of Sociology* 96: 1226-1259.

Ellison, G. and E. Glaeser. 1997. Geographic concentration in U.S. manufacturing industries: A dartboard approach. *Journal of Political Economy*, 105 (5), pp. 889-927

Feng, L. and M. S. Seasholes, 2004, Correlated trading and location. *Journal of Finance*, 59, 2117-2145

Glaeser, D., B. Sarcedote and J. Scheinkmen, 1996, Crime and social interactions. *Quarterly Journal of Economics*, Vol. 111 (2), pp. 507-548.

Glaeser, E., and J. Scheinkman. 2000. Non-market interactions. NBER Working Paper No. 8053

Grinblatt, M., and M. Keloharju, 2001, Distance, language, and culture bias: The role of investor Sophistication. *Journal of Finance* 56, 1053-1073.

Hall, B.J., and K.J. Murphy, K.J., 2002. Stock options for undiversified executives. *Journal of Accounting and Economics* 33: 3–42.

Hong, H., J.D. Kubik and J.C. Stein. 2004. Social interaction and stock market participation. *Journal of Finance* 59 (2004), 137-163.

Ittner, C., D. Larcker and R. Lambert. 2003. The structure and performance of equity grants to employees of new economy firms, *Journal of Accounting and Economics* 34: 89–127.

Kedia, S, V. Panchapagesan and V.Uysal. 2005. Geography and acquirer returns. Rutgers Business School Working Paper.

Kedia, S. and S.Rajgopal. 2005. Geography and the incidence of financial misreporting: Rutgers Business School Working Paper.

Lambert, R., D. Larcker and R. Verrecchia. 1991. Portfolio considerations in valuing executive compensation. *Journal of Accounting Research*; 29(1): 129-49.

Lerman, I. R., and S.R. Schmidt. 2004. An Overview of Economic, Social, and Demographic Trends affecting the U.S. Labor Market, www.dol.gov.

Loughran T. and P. Schulz, 2004, Dissemination of information: Urban versus rural stock return patterns, Working Paper, University of Notre Dame.

Malloy, C., 2005. The geography of equity analysis. *Journal of Finance* LX: 719-755.

Mehran, H., and J. Tracy. 2001. The effect of employee stock options on the evolution of compensation in the 1990s. *Economic Policy Review*, Vol. 7, No.3, Federal Reserve Bank of New York.

Meulbroek, L. 2001. The efficiency of equity-linked compensation: Understanding the full cost of awarding executive stock options. *Financial Management*, 30 (Summer): 5–30.

Murphy, K. 1999. Executive compensation. In: O. Ashenfelter and D. Card, Editors, Handbook of Labor Economics vol. 3, North-Holland, Amsterdam (1999).

Oyer, P. 2004. Why do firms use incentives that have no incentive effects? *Journal of Finance* 59, 1619-1649.

Oyer, P. and S.Schaefer. 2005. Why do some firms give stock options to all employees?: An empirical examination of alternative theories. *Journal of Financial Economics* 76(1): 99-133

Petersen, M., and R. Rajan, 2002, Does distance still matter? The information revolution in small business lending, *Journal of Finance* 57, 2533-2570.

Pirinsky, C. and Q. Wang. 2005. Does corporate headquarters location matter for stock returns? *Journal of Finance* (forthcoming).

Table 1: Rank and File Option Grant Patterns

Panel A: Rank and File Option Grant Patterns Across States

This table reports number of firms and rank and file option grants by U.S. States. Number of counties refers to the number of counties in that state that had at least one sample firm corporate headquarters. Number of firm-years refers to the number of Execucomp firm-years over the period 1992 to 2004. Mean rank and file option grants is measured as the number of stock options granted to the non top-five officers of a firm scaled by the number of shares outstanding in a given year. Industry-adjusted rank and file option grants represent the difference between the fraction of rank and file option grants and the average fraction of rank and file option grants for that industry in that year, where industry is measured using two-digit NAICS code.

State	Number of Counties	Number of firm years	Mean rank and file option grants	Mean industry adjusted rank and file option grants
(1)	(2)	(3)	(4)	(5)
AK	1	7	0.0181	-0.0399
AL	5	164	0.0150	-0.0122
AR	6	117	0.0179	-0.0103
AZ	2	160	0.0337	0.0076
CA	20	2210	0.0513	0.0194
CO	8	201	0.0294	-0.0009
CT	5	453	0.0268	-0.0015
DC	1	61	0.0150	-0.0149
DE	1	65	0.0249	0.0007
FL	14	385	0.0265	-0.0020
GA	13	392	0.0268	-0.0006
HI	1	35	0.0066	-0.0093
IA	6	83	0.0113	-0.0214
ID	2	57	0.0183	-0.0064
IL	14	882	0.0199	-0.0086
IN	11	171	0.0243	-0.0033
KS	5	43	0.0169	-0.0039
KY	4	96	0.0140	-0.0151
LA	8	120	0.0168	-0.0074
MA	7	623	0.0449	0.0119
MD	7	187	0.0276	-0.0001
ME	2	28	0.0402	0.0202
MI	15	352	0.0190	-0.0110
MN	10	476	0.0213	-0.0057
MO	8	293	0.0219	-0.0051
MS	6	48	0.0169	-0.0076
MT	2	14	0.0093	-0.0046
NC	13	261	0.0168	-0.0071
ND	2	8	0.0170	-0.0131
NE	2	54	0.0348	0.0080

Table 1: Rank and File Option Grant Patterns

Panel A: Rank and File Option Grants Patterns Across States (cont'd)

State	Number of Counties	Number of firm years	Mean rank and file option grants	Mean industry adjusted rank and file option grants
(1)	(2)	(3)	(4)	(5)
NH	3	50	0.0265	0.0004
NJ	16	505	0.0275	0.0017
NM	1	15	0.0451	0.0243
NV	2	100	0.0279	0.0043
NY	21	1121	0.0255	-0.0019
OH	18	735	0.0174	-0.0099
OK	3	96	0.0380	0.0156
OR	4	146	0.0261	-0.0049
PA	19	658	0.0241	-0.0032
RI	3	55	0.0359	0.0069
SC	6	85	0.0193	-0.0067
SD	3	18	0.0077	-0.0138
TN	9	260	0.0263	0.0002
TX	17	1316	0.0233	-0.0031
UT	3	86	0.0208	-0.0016
VA	16	337	0.0183	-0.0094
VT	2	22	0.0070	-0.0063
WA	5	219	0.0292	0.0024
WI	16	332	0.0128	-0.0150
WV	1	8	0.0052	-0.0176
WY	1	7	0.0020	-0.0189

Table 1: Rank and File Option Grant Patterns (cont'd)

Panel B: Rank and File Option Grant Patterns Across Industries

This table reports mean number of firm-years and average fraction of rank and file option grants, scaled by shares outstanding for firm-years classified by two-digit NAICS codes over the period 1992 to 2004. Data are sorted in descending order of the industry average rank and file grants.

Two digit NAICS	Industry Description	Mean rank and file option grants	# of firm years
(1)	(2)	(3)	(4)
51	Information	0.0507	1106
53	Real Estate and Rental and Leasing	0.0489	106
54	Professional, Scientific, and Technical Services	0.0458	439
56	Administrative Support and Waste Management Services	0.0386	285
62	Health Care and Social Assistance	0.0346	258
33	Manufacturing (Primary and fabricated metals, Computer and Electronics, Transportation equipment)	0.0344	3838
45	Retail trade (Sporting goods, hobby, books, general merchandise, miscellaneous non-store retailers)	0.0333	386
71	Arts, Entertainment, and Recreation	0.0332	53
81	Other Services (except Public Administration	0.0287	64
42	Wholesale Trade	0.0278	538
11	Agriculture, Forestry, Fishing and Hunting	0.0268	51
72	Accommodation and Food Services	0.0253	350
44	Retail trade (Motor vehicles, parts, appliances, food and beverage, health and personal care)	0.0205	602
52	Finance and Insurance	0.0204	1873
21	Mining	0.0202	578
32	Manufacturing (Paper, Printing, Petroleum, Chemical, Plastics, Rubber)	0.0200	1859
31	Manufacturing (Food, Beverage, Textile, Wood)	0.0192	655
23	Construction	0.0189	163
48	Transportation	0.0178	357
61	Educational Services	0.0157	42
99	Miscellaneous	0.0142	53
49	Warehousing	0.0111	42
22	Utilities	0.0076	633

Table 2: Rank and File Option Grant Patterns Sorted on Location and Industry

Panel A: This table reports the mean fraction of rank and file option grants, scaled by shares outstanding, for firm-years sorted on states and by two-digit NAICS codes over the period 1992 to 2004. High (low) option states are states where the average rank and file option grants are higher (smaller) than the median across all states. High (low) option industries are industries where the average rank and file option grants exceed (are smaller) than the median across all industries. *,**,*** represent significance at the 10%, 5%, and 1% level respectively.

Mean rank and file grants

	High option industries	Low option industries	T-statistic for difference between industries
High Option states	0.0433	0.0126	30.29***
Low option states	0.0277	0.0109	12.03***
T-statistic for difference between states	9.41**	3.74**	

Median rank and file grants

	High option industries	Low option industries	Z-statistic for difference between industries
Large Option states	0.0224	0.0173	34.31***
Low option states	0.0155	0.0162	21.78***
Z-statistic for difference between states	13.50***	5.96***	

Panel B: This table displays the distribution of industry adjusted rank and file option grants in neighboring counties within 100 km and 250 km of a sorted county. Counties are sorted into five groups on the basis of their industry-adjusted rank and file option grants. Industry adjusted option grants are obtained by subtracting the average rank and file option grant for all firms in the same two digit NAICS code in a given year. The test for group 1 and 5 is the T-test for the difference in means and a Z test for the difference in medians between groups 1 and 5.

	Counties within 100km				Counties within 250 km			
	Ind.adj. option grants in a county	Mean ind. adj. option grants in neighboring counties	Median ind. adj. option grants in neighboring counties	# of counties	Ind.adj. option grants in a county	Mean ind. adj. option grants in neighboring counties	Median ind. adj. option grants in neighboring counties	# of counties
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Group1	-0.0206	-0.0109	-0.0131	527	-0.0181	-0.0108	-0.0130	626
Group2	-0.0114	-0.0045	-0.0115	527	-0.0110	-0.0075	-0.0115	626
Group3	-0.0064	-0.0030	-0.0088	527	-0.0064	-0.0014	-0.0088	626
Group4	-0.0010	-0.0041	-0.0083	527	-0.0012	-0.0029	-0.0086	626
Group5	0.0197	0.0021	-0.0064	526	0.0146	0.0002	-0.0067	626
Test for group1-5		-6.42***	8.48***			-6.29***	8.97***	

Table 3: The Effect of Neighborhood on Options Grants at the County Level

The dependent variable is average industry-adjusted ratio of rank and file option grants to shares outstanding for all firms located in a county. The firms included in the calculation are those with data on Execucomp from 1992-2004. Size of the county is the land area in square miles in 2000. Percentage population change is the % change in population over 1990 to 2000. Percentage change in private, non-farm establishments is the % change in the number of new private, non-farm establishments over the period 1990 to 1998. Percentage change in personal income is the % change in personal income over the period 1990 to 1998. Data for all county characteristics is obtained from the US Census Bureau. Number of firms is the number of Compustat firms with head quarters in the county. Neighbor county (100 or 250 km) industry-adj. options is the industry-adjusted rank and file option grants (scaled by shares outstanding) for all counties within a 100 or 250 km radius of a county. Lowpop (Highpop) dummy is set to one when the number of firms headquartered in the county is less (equal to or greater) than ten. We choose ten because that is the median number of firms across all counties. Year dummies were included but have not been reported here for brevity. Errors have been corrected for heteroscedasticity. P values are displayed in parentheses below. *,**,*** represent significance at the 10%, 5%, and 1% level respectively. Intercepts have not been tabulated below.

	Model 1	Model 2	Model 3
County characteristics			
Size of the County x 10^6	-0.73	-0.55	4.08*
	(0.59)	(0.69)	(0.06)
Percentage Population change x 10^3	0.2973***	0.27***	0.32***
	(0.00)	(0.00)	(0.00)
Percentage Change in private, non-farm establishments x 10^3	-0.049	-0.05	-0.01
	(0.54)	(0.52)	(0.89)
Percentage Change in personal income x 10^3	-0.048	-0.03	-0.06
	(0.59)	(0.74)	(0.51)
Fraction of population with bachelors degree and higher x 10^2	0.034***	0.034***	0.037***
	(0.00)	(0.00)	(0.00)
Number of firms in the county x 10^2	0.009***	0.008***	0.008***
	(0.00)	(0.00)	(0.00)
Neighborhood effects			
Neighbor county (250 km) industry-adj. Options	0.1115**		
	(0.03)		
Neighbor county (250km) ind. adj. options* Lowpop. Dummy		0.209***	
		(0.00)	
Neighbor county (250km) ind. adj. options* Highpop Dummy		-0.017	
		(0.79)	
Neighbor county (100 km) industry-adj..*Lowpop Dummy			0.10*
			(0.10)
Neighbor county (100 km) industry-adj..*Highpop Dummy			-0.006
			(0.90)
Year Effects	Yes	Yes	Yes
R squared	0.0626	0.0658	0.0774
Number of counties	1455	1455	1235

Table 4: Neighborhood and Firm's Option Granting Practices

This table displays results from a cross-sectional analysis of firm's industry adjusted rank and file option grants from 1992 to 2004. The dependent variable, firm's industry adjusted rank and file option grants is obtained by subtracting the average rank and file option grants for all firms in the same industry, defined as two digit NAICS, in that year. Option grants are the number of options granted to rank and file employees scaled by the number of shares outstanding. Cash flow shortfall is the three-year average of [(common and preferred dividends +cash flow from investing - cash flow from operations)/total assets]. Interest burden is the three-year average of interest expense scaled by operating income before depreciation. Negative values of interest burden and values greater than one are set equal to one. Rnd/Sales is the three-year average of research and development expense scaled by sales. Book-to-market is (book value of assets)/(book value of liabilities + market value of equity). Long-term debt indicator is an indicator variable equal to one if the firm has long-term debt outstanding, and zero otherwise. Low marginal tax is an indicator variable equal to one if the firm has negative taxable income and net operating loss carry-forwards in each of the three years prior to the year the new equity grant is awarded, and zero otherwise. High marginal tax is an indicator variable equal to one if the firm has positive taxable income and no net operating loss carry forward in each of the three years prior to the year the new equity grant is awarded. Log sales is the logarithm of the firm's sales. Log employee is the logarithm of the number of employees. One (two) year lag fiscal yr return is the percentage return on the firm's stock in the prior (prior minus one) fiscal year to the one in which options are awarded. Ind_adj grants 250 (100) is the average industry-adjusted option grants for all other firms located within 250km (100km) of the firm. T-statistics appear in parentheses. ,**,*** represent significance at the 10%, 5%, and 1% level, two-tailed, respectively.

Tables follow on the next page

Table 4: Neighborhood and Firm's Option Granting Practices (Cont'd)

	(1)	(2)
Standard explanatory variables		
Cash Flow shortfall	-0.0005	-0.0005
	(-0.77)	(-0.82)
Interest Burden	0.0049*	0.0050*
	(1.67)	(1.68)
Rnd/sales	0.0668**	0.0690**
	(2.43)	(2.48)
Book to market	0.0015	0.0017
	(1.13)	(1.25)
Long term debt indicator	-0.0059**	-0.0061**
	(1.92)	(-1.98)
Low marginal tax indicator	-0.0059	-0.0063
	(-0.63)	(-0.67)
High marginal tax indicator	-0.0036***	-0.0035**
	(-2.36)	(-2.22)
Log sales	0.0028*	0.0029*
	(1.81)	(1.87)
Log employees	-0.0048**	-0.0051**
	(-2.84)	(-2.98)
One year lag fiscal yr return	-0.0005	-0.0005
	(-0.40)	(-0.38)
Two year lag fiscal yr return	0.0017	0.0017
	(1.37)	(1.41)
Neighborhood Effects		
Ind_adj grants 250	0.3140***	
	(5.45)	
Ind_adj grants 100		0.2031***
		(5.27)
Industry and Year Dummies	Yes, Yes	Yes, Yes
R-square	0.0535	0.0524
Number of firm-year observations	9602	9444

Table 5: Neighborhood, Tight Labor Markets and Firm's Option Granting Practices

This table displays results from a cross-sectional analysis of firm's industry adjusted rank and file option grants from 1992 to 2004. The variables are as defined in table 4. Number of firms 250 (100) is the number of firms located within 250 km (100 km) of the firm's headquarters. All firms with data in Compustat were used for this. Tight (lax) labor market dummy is set to one if the number of firms in the 100 km or 250 km neighborhood is larger (smaller) than the median number of firms found in all the 100 km or 250 km units across the entire country. A firm's local beta is calculated as per equation (1) in the text as per Pirinsky and Wang (2005). T-statistics appear in parentheses. ,**,*** represent significance at the 10%, 5%, and 1% level, two-tailed, respectively.

	Model 1	Model 2	Model 3	Model 4
Cash Flow shortfall	-0.0003	-0.0003	-0.0009	-0.0007
	(-0.57)	(-0.48)	(-0.38)	(0.77)
Interest Burden	0.0048*	0.0049*	0.0058*	0.0055*
	(1.62)	(1.68)	(1.77)	(1.71)
Rnd/sales	0.0597**	0.0577**	0.0636**	0.054**
	(2.26)	(2.23)	(2.31)	(2.10)
Book to market	0.0015	0.0014	0.0024	0.0022
	(1.12)	(1.07)	(1.58)	(1.54)
Long term debt indicator	-0.0054**	-0.0054*	-0.0076**	-0.0068**
	(-1.79)	(-1.77)	(-2.23)	(-2.05)
Low marginal tax indicator	-0.0057	-0.0056	-0.0056	-0.0051
	(-0.62)	(-0.61)	(-0.57)	(-0.53)
High marginal tax indicator	-0.0035**	-0.0034*	-0.0027**	-0.0025*
	(-2.31)	(-2.26)	(-1.64)	(-1.55)
Log sales	0.0023	0.0023	0.0028*	0.0023
	(1.49)	(1.48)	(1.64)	(1.34)
Log employees	-0.0044**	-0.0043**	-0.0042**	-0.0037**
	(-2.58)	(-2.58)	(-2.29)	(-2.03)
One year lag fiscal yr return	-0.0006	-0.0006	-0.0007	-0.0008
	(-0.45)	(-0.48)	(-0.51)	(-0.63)
Two year lag fiscal yr return	0.0015	0.0016	0.0007	0.0059
	(1.29)	(1.32)	(0.58)	(0.52)
Ind_adj grants 250	-0.078		0.3215***	
	(-1.52)		(5.17)	
Firm's local beta			0.0045**	
			(3.81)	
Number of firms (250)	0.0001***	0.0001***		0.0001
	(2.13)	(2.38)		(1.02)
Ind_adj grant (250) * Num. of firms (250)	0.0010***			
	(6.29)			
		0.6069***		0.5869***
Ind_adj grant (250) * Tight Lab. Market (250)		(7.27)		(6.73)
		-0.1257**		-0.1357**
Ind_adj grant (250) * Lax Lab. Market (250)		(-2.54)		(-2.45)
				0.0058***
Firm's Local Beta * Tight Lab. Market (250)				(4.27)
				0.0018
Firm's Local Beta * Lax Lab. Market (250)				(1.11)
Industry and Year Dummies	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
R-square	0.0582	0.0601	0.0584	0.0647
Number of firm-year observations	9602	9602	8372	8372

Table 6: Social Interaction, Tight Labor Markets and Firm's Option Grants

This table displays partial results from a cross-sectional analysis of firm's industry adjusted employee deviations for the firm for the year over 1992 to 2004 on several explanatory variables. Dummy if firm is ranked in Fortune 500 is set to one if the firm is ranked as a Fortune 500 firm. Min. Fortune rank (250) is the minimum Fortune 500 rank of all firms within the 250 km radius of an individual firm's headquarters. Firm Market Value is the market value of the firm's equity while Max Market Value (250) is the maximum market value of equity found within the 250 km radius of an individual firm's headquarters. Firm Op Inc/Sales is the firm's earnings before interest, tax and depreciation scaled by sales whereas Max op inc/sales (250) is maximum Op Inc/Sales found within the 250 km radius of an individual firm's headquarters. Other variables defined in notes to Table 4. The standard explanatory variables cash flow shortfall, interest burden, Rnd/Sales, Book-to-market, Long term debt indicator, Low marginal tax indicator, log sales, log employees, one year lag fiscal year return and two year lag fiscal year return were included in the estimation but not reported here for brevity. T-statistics appear in parentheses. ,**,*** represent significance at the 10%, 5%, and 1% level, two-tailed, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Neighborhood						
Ind_adj grants 250	0.4024***	-0.0333	0.1155*	-0.0998	0.0500	0.0731
	(6.02)	(-0.46)	(1.82)	(-1.76)	(0.46)	(0.76)
Tight labor markets						
Number of firms in 250 km		0.0001*		-0.0001		0.0001**
		(1.68)		(-0.38)		(2.26)
Ind_adj grant (250) * Number of firm (250)		0.0001***		0.0012***		0.0011***
		(5.35)		(5.52)		(6.19)
Social influence						
Dummy if firm is ranked in Fortune 500	0.0040**	0.0039**				
	(2.28)	(2.22)				
Min. Fortune rank (250)	-0.0001	-0.0001				
	(-1.47)	(-0.56)				
Min. Fortune rank (250) * Ind_adj grant (250)	-0.0017***	-0.0004				
	(-5.29)	(-1.20)				
Firm Market Value			-0.0001	-0.0001		
			(-0.86)	(-0.81)		
Max Market Value (250)			0.0001***	0.0001***		
			(2.74)	(2.54)		
Max Mktval (250) * Ind_adj grant (250)			0.0001**	0.0001		
			(2.52)	(-0.51)		
Op Inc/Sales for the firm					0.0002*	0.0002
					(1.61)	(1.53)
Max op inc/sales in 250 km					0.004	-0.0010
					(0.55)	(-1.36)
Max op inc/sales (250)* Ind_adj grant (250)					0.3278**	-0.2289
					(2.32)	(-1.63)
Industry and year dummies included	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes	Yes, Yes
R-squared	0.0557	0.0586	0.0557	0.0589	0.0541	0.0586
Number of firm-year observations	9599	9599	9547	9547	9429	9429