Knowledge Transfer Through R&D Labor Mobility

A LinkedIn Posting by Jeff Kent

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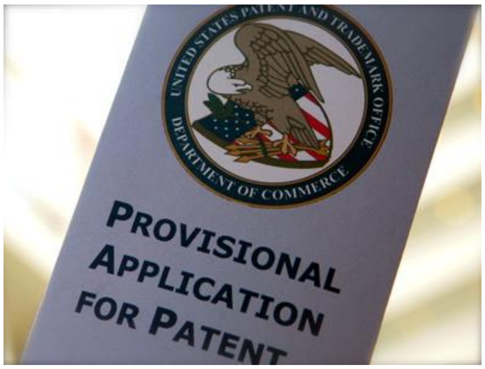
Knowledge transfer through labor mobility generates an important source of innovation and growth. When R&D workers leave their employer, social ties to that firm are not fully extinguished. This provides an opportunity for the former employer to gain access to available knowledge from the ex-employee's new firm. A recent empirical study explains these results.

Patent Activity:



A newer worker who recently joined a firm from a *patenting* company, is associated with about 6 times (relative) more patent applications by their new employer than an employee who had stayed with their current firm. If the new employee comes from a company not engaging in patent activity, there is no increased activity. The reason being, patenting firms on average are more active with R&D, enabling them to establish a more valuable knowledge base. Negative effects from intellectual property protection litigation, by former firms of employees who left, are offset by the positive transfer of knowledge.

Social Knowledge Sharing:

The employee that joins a company engaging in patenting activity also significantly increases the amount of patent applications for their former employer. Here's how: Their social knowledge, i.e., a detailed technical process, can get transferred by a worker but implicit knowledge that's entrenched in the culture, routines, and social norms of the organization usually can't. The mobility of labor promotes social information sharing and this is fundamentally why its perceived as a good source of collective innovation.

Social Connections and Awareness:

Knowledge transfer can move in the opposite direction to labor because:

a) Ex-employees likely keep in touch with former co-workers and exchange information;

b) The former employer will be more aware of who their ex-worker's new employer is, resulting in more attention given to this firm's R&D actions.

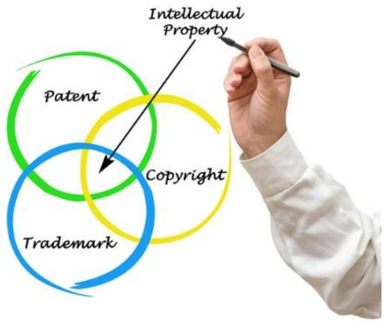
Since there is more activity awareness between the two companies and there are strong personal connections among employees, this reinforces the transfer of knowledge forward to the new firm. With some reverse information flows going to the former organization, this mitigates the lost knowledge of the departed employee.

Effects to the Bottom Line:

Net profit of the organizations involved will likely have differing effects.

a) Social knowledge from the former firm gets spilled over to the new firm, which causes increased competition regarding some commercial uses for this information, leading to less profit for the ex-employer. Profit margins become squeezed due to increased competition and turnover costs, with the new employer gaining in profit from these commercial uses but not as much as the ex-firm loses due to competition. This is not a zero sum event, thus, these effects may curtail labor mobility.

b) The two companies could get increased joint profits from the effect that labor mobility has on inventiveness, because knowledge sharing potentially encourages it. The result can help boost the diversity, value, or speed of invention, which may act as a catalyst for labor mobility, but only if the joint invention effect is positive.



The quantitative study results show that labor mobility is related to an increased chance of the two organizations citing each other in subsequent patents, suggesting some information sharing between them. This encourages firm-level innovation and collective growth, but how labor turnover may affect a company's R&D motivations, must also be considered.