**Thesis Title:** Location Analysis of 3D Printer Manufacturing Industry  
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**Abstract:**  
Advanced manufacturing has been well addressed in American policies, especially since 2010 when the States wanted to revitalize the economy and create jobs by taking advantage of its competitive sectors. The U.S. has strength in high-tech manufacturing industries due to endowments of advanced technology and high-skill labor. 3D printing is a typical advanced manufacturing industry that is high value added, driven by technological innovation, highly skilled labor, cutting edge materials and production process. The U.S. has shown an obvious advantage in this industry. 3D printer manufacturing emerged in America in the 1980s and has surged ahead during the recent decade. The distribution of 3D printer companies is not bound within California where 3D printing was invented, but has spread out to the Southeast, Mid-Atlantic and Great Lakes. In this thesis I look into two questions: what are the location factors of 3D printer manufacturing industry; why some cities that are not noted for high-tech clusters can attract 3D printer manufacturers. To find answers, I first summarized the location criteria of innovative manufacturing industries raised by existing studies. This is followed by my analyses of the evolution of 3D printing technology, the industry’s market performances and the development trajectory of major companies. They illustrate the characteristics of 3D printer manufacturing and the reasons for their concentration at specific states. Based on these findings, I adjusted the list of location factors according. In this thesis, two case studies of 3D printer producers are presented. The first one is the biggest 3D printer firm 3D Systems Corp.’s relocation from California to Rock Hill, South Carolina in 2005, and the second is a promising firm MakerBot Industries’ establishment and development in Brooklyn, New York City since 2009. I interviewed the two companies to know their considerations when choosing their sites of business and meanwhile get their comments on the location selection criteria of 3D printer manufacturing. To demonstrate these factors, I analyzed the socio-economic data, business and knowledge network as well as relevant policies that could account for the development of 3D printer manufacturing in these cities. My hypothesis is that highly skilled labor, knowledge sharing and business networks are important factors that would affect their location decisions. This thesis ends up with recommendations for cities that are not the origin of new technologies to attract innovative manufacturing industries like 3D printer manufacturing.