

Going It Alone? A Smartphone Study of Social Connectivity and Employment after Prison

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Finding work in the immediate months after release has been identified as a key factor for reducing recidivism and promoting successful reentry (Visher, et al. 2008; Bushway, et al. 2007). Although the majority of reentering individuals are initially motivated to find work (Visher, et al. 2008; Nelson, et al. 1999), they face numerous barriers. Scholarship has documented the existence of obstacles to finding work, such as stigma, legal restrictions, low human capital, and poor social connectivity; however, we know relatively little about the actual job search and employment experiences of individuals and specifically, about the mechanisms associated with employment. Studies on labor force participation usually rely on unemployment insurance (UI) records (Pettit and Lyons 2009; Sabol 2007); however, UI-covered jobs may underestimate self-reported employment by about one-third (Jacobs and Western 2007). An exception is an Urban Institute longitudinal survey study; yet, retrospective, self-reported measures may not capture important details about this irregular period, perhaps explaining why no post-release measures were consistently associated with employment (Visher and Kachnowski 2007).

In this paper, I utilize a new methodology for data collection—the use of smartphones—to investigate whether social connectivity is a barrier to job searching and finding work among reentering individuals. I focus on the idea that ex-offenders have small networks (Clear, Waring, and Scully 2005; Visher and Kachnowski 2007), have disadvantaged contacts isolated from labor market information (Hagan 1993; Sullivan 1989), and take a go-it-alone strategy for finding work (Smith 2010). These concepts are commonly invoked in the reentry literature, as well as scholarship on the urban poor, as barriers to employment even though the empirical evidence is relatively limited.

This paper uses novel smartphone measures to answer the following questions: do reentering individuals have small networks? Are their social contacts disadvantaged and isolated from employment information? How do reentering individuals leverage their contacts to find work?

Sample, Data, and Methods

Sample. Participants were recruited from the Newark, New Jersey Parole Office and sampled from a complete census of all new releases. Individuals were eligible to participate if they were male, recently released from prison, and searching for work. Between April 2012 and 2013, a total of 156 participants were recruited and followed for three months. Relative to other reentry studies, this project has high participation (84 percent) and retention rates (70 percent).

Data. I analyze fine-grain, real-time measures of observed behaviors and self-reported information on job searching and employment via smartphones that were collected from participants over three months. I analyze observed behavioral measures on social connectivity using information on all calls and texts made and received by participants. I also utilize smartphone survey answers that participants submitted in real-time about communications that had just occurred with friends and family. In total, participants received nearly 32,000 surveys and completed over 25,000 surveys (or 78 percent), which is an average of 185 smartphone

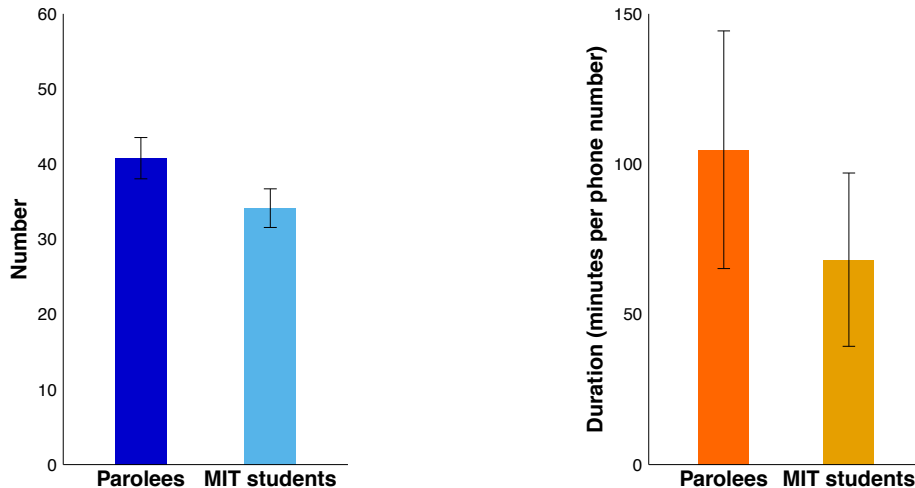
surveys per participant. I analyze smartphone-based measures in combination with information collected from semi-structured interviews, which were administered at the beginning and end of the three-month study period.

Methods. To describe social connectivity and social contact characteristics, I present descriptive results based on call logs and smartphone surveys. Where possible, I compare these findings with estimates from general population samples. To analyze how parolees utilize their contacts for finding work, I use descriptive statistics from real-time reports of how participants found employment and I estimate how social connectivity is associated with time to first job in a Cox proportional hazards regression model. The Cox model uses person-day measures to estimate how social connectivity is related to the hazard to first job (or time to first job).

Results

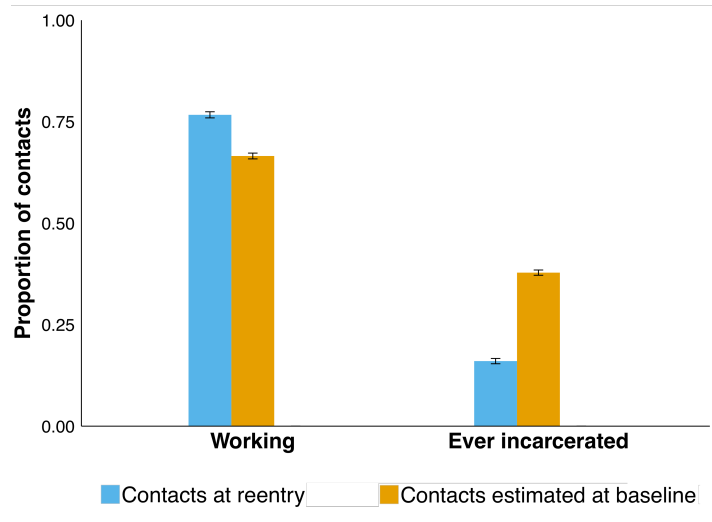
First, I examine whether reentering individuals have small social networks using data on phone calls made and received during the study period. I find that reentering individuals have high levels of social connectivity and communication. They are in contact with more people and have more communication with each contact, as compared to MIT graduate students and faculty (see Figure 1). I also analyze in-person social contact using smartphone surveys that randomly sample daytime hours and find that over one-third of time is spent with friends and family.

Figure 1: Number of contacts and communication duration, for parolees (N=132) and MIT students (N=89)



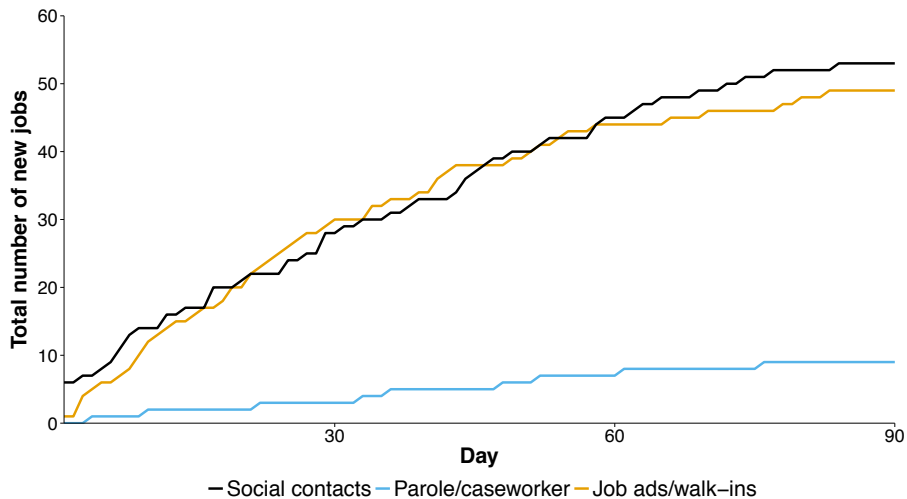
In the second section, I consider whether social contacts are relatively disadvantaged and isolated from labor market information. This analysis is based on smartphone survey answers collected in real-time about contacts and communication via the phone call logs. Across all contacts, over three-quarters are currently working and only 16 percent have ever been incarcerated. I compare these findings to estimates of parolees' social networks before reentry, as measured by a technique recently developed by Salganik and colleagues (2010). As Figure 2 shows, parolees associate with more advantaged contacts at release from prison, as compared to the universe of their known associates before reentry.

Figure 2: Contacts at reentry (N=3,144) versus earlier periods (N=1,293)



In the third section, I analyze how parolees use their contacts in their search for work. Using daily smartphone survey answers about new jobs obtained, I find that 44 percent of new jobs came from a social contact, usually a friend or family member (see Figure 3). This number is quite similar to Granovetter’s finding, where 46 percent of his unemployed jobseekers found jobs through social contacts (1995). Thus, it appears that parolees receive help from their contacts at comparable levels of other groups.

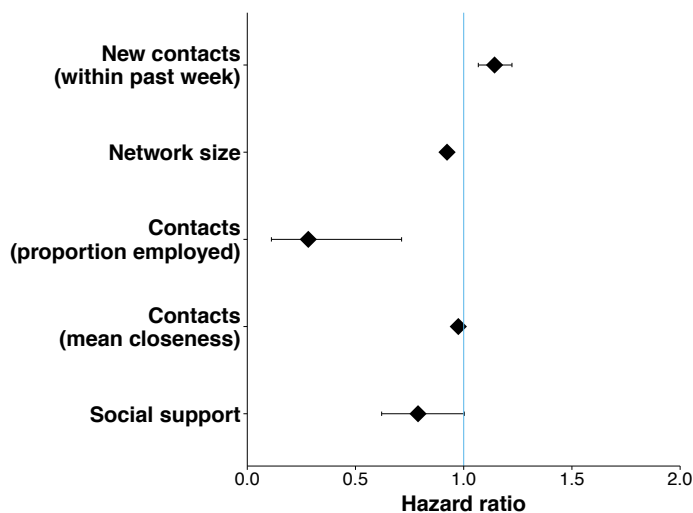
Figure 3: Source of new jobs, among parolees (N=156)



I then examine how social contacts are associated with finding work, controlling for other factors. In this analysis, I use a Cox proportional hazards model with person-day information on working and contacts in order to estimate hazard ratios for time to first job. As Figure 4 shows, individuals with larger social networks, with higher proportions of employed social contacts, and with higher levels of social support spend more time unemployed. At first, this might appear

counterintuitive; however, the findings suggest that more advantaged individuals are perhaps less desperate to take a job or that they spend time contributing to households in non-monetary ways.

Figure 4: Time to first job, using a Cox regression model



Note: other covariates include age, education, relationship status, total children, length of recent incarceration, health status, mental health diagnosis, any previous job, and shelter residence.

Conclusion

This paper uses novel smartphone measures of observed behaviors and self-reported answers collected in real-time over three months to analyze the social connectivity of reentering individuals. The findings suggest that individuals have large social networks, high connectivity to others, and relatively advantaged contacts. Reentering individuals use their contacts to find work at comparable levels as other unemployed jobseekers, and measures of social connectivity are significantly associated with time to employment. These findings stand in stark contrast to previous scholarship on reentry and employment, and are particularly consequential given that other reentry studies have not consistently found individual-level, post-release factors to predict employment (Visher and Kachnowski 2007). The assumption has been that finding work at reentry is rare or largely a matter of luck; however, this paper's results suggest that previous studies have been hampered by the limitations of traditional methods, particularly by the use of coarse, retrospective survey measures, which could not identify consequential mechanisms. By utilizing smartphones as data collection tools and applying survival analysis methods, this paper finds that social connectivity is importantly related to finding work at reentry.

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