



# COWORKING SPACES: WORKING ALONE, TOGETHER

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## ABSTRACT

In the past decade, coworking spaces have emerged as a new and promising phenomenon within entrepreneurship. Due to its prevalence, popularity and potential for disruptive change, coworking is increasingly relevant to theory, practice and policy in entrepreneurship, yet its implications are largely unstudied given its rapid rise. Overall, more data and analysis is needed to inform owners, policy makers and entrepreneurs about the effects of coworking. This paper is meant to increase understanding about the nature and value of this new phenomenon. In other words, it attempts to address the question: Does coworking work?

## INTRODUCTION

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Coworking provides a built-in community of other entrepreneurs, all working separately on their own ventures, but working together in the same location.

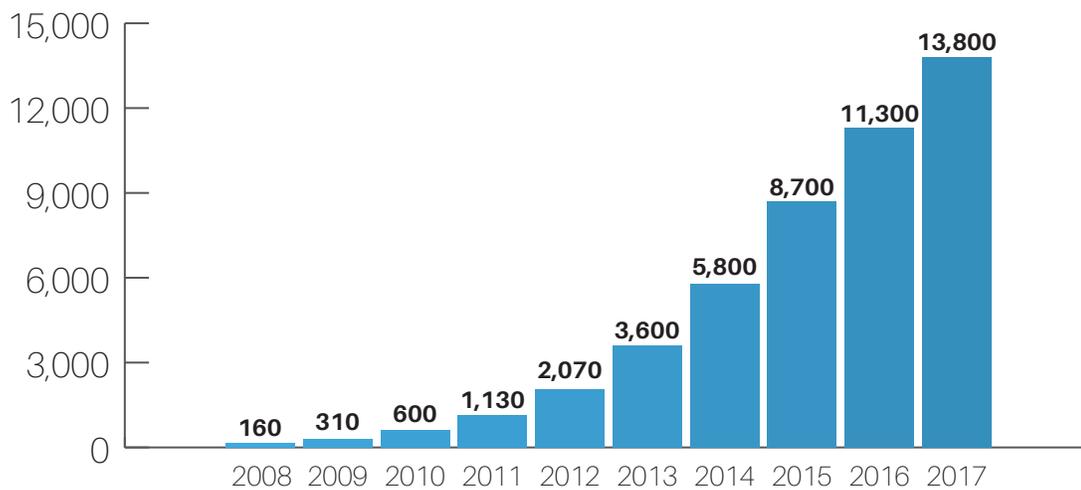
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In the past decade, a relatively new and promising phenomenon has emerged within entrepreneurship-- coworking spaces, or membership-based workspaces in which diverse groups of entrepreneurs and other nontraditional workers work together in a shared, communal space (Spreitzer et al., 2015:28). These individuals are often not able to afford their own office space, and thus coworking spaces offer a cost-effective solution. In addition to the space itself, coworking provides a built-in community of other entrepreneurs, all working separately on their own ventures, but working together in the same location. Overall, coworking provides unique benefits that are only possible due to the concentration of entrepreneurs in one physical space.

Though coworking holds considerable promise, the concept is still relatively new. Mostly unheard of ten years ago, the global number of coworking spaces has grown dramatically in recent years. For example, the annual Global Coworking Survey (Deskmag, 2018) estimates that only about 160 coworking spaces existed in 2008, whereas in 2017 there were more than 13,800 (see Figure 1). As entrepreneurs (especially millennials) have been flocking to these spaces in droves, investors have taken notice. For example, from 2017-2018 SoftBank invested more than \$7 billion in WeWork, the world's leading coworking provider, making it the fourth most valuable startup in the U.S. Many of the world's largest landlords are also beginning to invest heavily in coworking spaces, considering them to be one of the "few bright spots in the office market during the economic recovery," making them "one of the few sources of demand" (The Wall Street Journal, Jan. 23, 2018). As coworking has become more popular, countless entrepreneurial websites, blogs, magazines and other news sources have addressed recent coworking trends and what they might mean for entrepreneurship and the future of work. Overall, the rise of coworking is regarded as one of the most prevalent trends in recent entrepreneurial activity (Kreamer, 2012).

Due to its prevalence, popularity and potential for disruptive change, coworking is increasingly relevant to theory, practice and policy in entrepreneurship, yet its implications are largely unstudied. Although some research has addressed the implications of accelerators and incubators (Cohen, Bingham, and Hallen, 2018; Hallen, Cohen, and Bingham, 2018), coworking spaces are different in fundamental ways, and thus require separate attention. Additional research is needed to inform practice, which is increasingly embracing coworking. Numerous entrepreneurial news sources have addressed coworking, attempting to advise entrepreneurs as to whether coworking is right for them, and if so, which type of space is best. However, these recommendations are often limited to anecdotal evidence, meaning more data and research are needed to advise entrepreneurs.

**Figure 1: Global Number of Coworking Spaces by Year**




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Furthermore, understanding the effects of coworking is necessary, as they raise important policy implications. Because the coworking industry as we know it is relatively new, it has not yet gone through a full economic cycle. Once a recession or other shock occurs, the coworking industry will likely experience consolidation (Klepper, 1996). Many coworking spaces are currently funded either fully or partially by local governments, universities and corporations, and these stakeholders will be forced to decide whether these spaces are worthy of continued funding.

Overall, more data and analysis is needed to inform owners, policy makers and entrepreneurs regarding the effects of coworking. This paper is meant to increase understanding about the nature of coworking. In other words, it attempts to address the question: Does coworking work? In addition, it explores *why* coworking works, and *who* might benefit the most.

## LITERATURE REVIEW

The nature of work has changed significantly in recent years. Though there are conflicting estimates on the extent of the change, most data sources agree that there has been a large shift from *traditional* work (i.e., standard full-time employment) to *nontraditional* work (i.e., work that is alternative, market mediated, vulnerable, contract, freelance, e-lance, contingent, disposable or temporary [Ashford et al., 2007]). The most authoritative source recently has been Katz and Krueger (2016), who conducted a large national survey and found that independent workers represent more than 15 percent of the U.S. labor market, and that they account for somewhere between 80 and 100 percent of the net employment growth since 2005.<sup>1</sup> This monumental shift is the result of many factors, including new technologies (e.g., social media, online job boards, sharing economy websites or apps), changing demographics (e.g., millennials who are much more likely to prefer nontraditional work) and a dissipating stigma around nontraditional work (see Table 1 for more details). As the nature of work has evolved at a rapid pace, however, one question remains top of mind: Where will these people work?

Recently, a new phenomenon – coworking spaces – has emerged as a direct response to this question. Coworking spaces are membership-based workspaces in which diverse groups of entrepreneurs and other nontraditional workers work together in a shared, communal space. Individuals pay a monthly rent in exchange for the right to work in the space, as well as for membership in a social and professional community. Each individual works separately on their own company or project, but works together with others in the same physical location. As such, coworking spaces generally market themselves as a place where people “work alone, together.”

In the United States, Brad Neuberg is generally credited with introducing the formal concept of coworking in 2005 when he organized Spiral Muse in San Francisco (Deskmag, 2013). I interviewed Brad in 2018, and asked him about the founding story. He explained how as a software developer, he craved “the community and structure of a job, but the freedom and independence of working for myself.” As an experiment, he rented a small room and furnished it with a few simple desks and chairs. He then placed an ad on Craigslist and handed out flyers at coffee shops, encouraging people to show up and work on their own projects in the same space as him. As the space and the concept grew more popular, Brad

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<sup>1</sup>Other studies have been performed that also imply a huge surge in independent workers. For example, the Freelancing in America survey (2017) found that 57.3 million people did some type of independent work in 2017, and that the independent workforce grew at a rate three times faster than the U.S. workforce overall since 2014. Another report conducted by the McKinsey Global Institute (MGI) found that independent workers make up 20 to 30 percent of the working-age population in the U.S. and the EU-15, representing up to 162 million individuals (MGI, 2016). In another study, the U.S. General Social Survey estimated that the number of individuals employed in nonstandard work was as high as 40.4 percent in 2010 (Government Accountability Office, 2015).

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**Table 1: What is Driving the Changing Nature of Work?**

Driver	Explanation
Technology	Though finding nonstandard work has historically been difficult, recent technological advances have made it much easier. This includes social media, online ads or job boards, sharing economy websites or apps (Uber, Airbnb, etc.), or online freelance marketplaces or platforms (Upwork, Freelancer, 99designs, etc.). The Oxford Internet Institute found that from 2016 to 2017 there was a 26% increase in the number of projects that corporations were sourcing from these platforms, with popular categories being software development, creative and design and writing (Corporaal and Lehdonvirta, 2017).
Demographics	Compared to prior generations, millennials prefer more autonomy, career flexibility, casual and fun work environments, flexible hours, and “results-only” work policies in which they are free to choose how, when and where to go about their work as long as they meet certain criteria (Alsop, 2008). All of these factors are driving more millennials to nonstandard work – in fact, the Freelancing in America (2017) survey found that 47 percent of 18-34 year-olds do some form of nonstandard work at least part-time, compared to only 27 percent of people over 45.
Nonwage benefits	Many people opt for standard employment for nonwage benefits, with health insurance being the most notable. However, in recent decades, the number of employers providing these benefits has been declining steadily (Farber and Levy, 2000; Pierce, 2001). Recently, the Affordable Care Act (ACA) was passed in the United States, making it even more costly for employers to offer benefits to standard workers, as well as making it easier for nonstandard workers to obtain access to health insurance. This creates incentives for firms to use more contractor work and outsourcing (Bidwell et al., 2013).
Stigma	In the past, a negative stigma surrounded nonstandard workers, viewing them as marginalized people in peripheral jobs (Ashford et al., 2007). In recent years, however, this stigma has begun to dissipate as more “supertemps” (e.g., top managers and professionals such as lawyers, CFOs and consultants) enter nontraditional work (Miller and Miller, 2012). This has helped add legitimacy and sometimes even prestige to nonstandard work. This same sentiment was also captured in the Freelancing in America (2017) survey, in which 70 percent of respondents agreed that perceptions of nonstandard careers are becoming more positive.

teamed up with two other individuals to start a coworking conference and Wiki (both still operational today), with the purpose of encouraging others to start their own spaces and share best practices. This sparked a coworking movement, with thousands of new spaces forming over the next several years.

As the coworking movement gained traction, variations on the concept began to emerge. For example, some spaces began offering private offices, in addition to the traditional open space with communal desks, tables, chairs etc. Spaces also began to experiment by offering various amenities, such as access to conference rooms, WiFi, printing, gyms, childcare, and snacks and beverages. Some spaces also chose to focus on a specific group (e.g., only freelancers), or industry (e.g., media or software). Many spaces also started offering events, ranging from professional networking opportunities to more social interaction (e.g., game nights, watching sports, etc.) to trainings on topics relevant to their

tenants, such as how to find health insurance or deal with taxes, how to acquire customers or how to cope with unpredictable income. In addition, many coworking providers found it difficult to be profitable or to break even with the rental revenue from tenants. As such, many sought out additional funding through sponsorships by local governments, universities or corporations. These dimensions and variations of coworking are summarized in Table 2.

Despite the explosive growth in the number of coworking spaces, very little academic research has been done to understand the trend. To date, Gretchen Spreitzer and colleagues (Spreitzer et al., 2015a; Spreitzer et al., 2015b; Garrett, Spreitzer, and Bacevice, 2017) are the only ones to have addressed the phenomenon in the management literature.

**Table 2: Design Choices for Coworking Spaces**

Design dimension	Explanation
Private offices vs. open space	Coworking spaces vary as to the type of space they offer. Most coworking spaces have large, open areas with desks, tables, chairs and couches, where seating is “first come, first served.” However, some coworking spaces (approximately 25 percent, according to Deskmag, 2018) also have private offices available for rent.
Rent/leases	Coworking spaces charge a monthly rent to tenants. The amount of rent depends on the size of the space being rented, with private offices being more expensive than open coworking areas. Most leases are month-to-month, allowing tenants the flexibility to cancel at any time.
Amenities	Coworking spaces generally offer a variety of amenities, which could include office furnishings (desks, tables, chairs, couches, etc.), access to conference rooms, WiFi, printing, exercise equipment and free food and beverages. WeWork, for example, is known for its free-flowing alcohol available to all tenants.
Aesthetics/ambiance	Although some coworking spaces are designed to look and feel like traditional offices, the vast majority attempt to create a different type of atmosphere and ambiance. The spaces are designed to encourage interaction, creativity and innovation.
Members	Some coworking spaces will allow anyone to work at their space as long as they are able to pay the rent, resulting in a mix of startup companies, small businesses, remote workers, freelancers and independent contractors. Other coworking spaces choose to focus, perhaps on a particular group (e.g., startups or freelancers) or on a particular industry (e.g., media, software, fintech, etc.).
Sponsors/partners	Deskmag (2018) estimated that only about 40 percent of all coworking spaces were profitable in 2017. Many coworking spaces do not collect enough rent to cover their expenses, and thus seek out funding from sponsorships by local governments, universities and corporations. In addition, many coworking spaces partner with other members of the entrepreneurial ecosystem (accelerators, incubators, etc.) to coordinate events and initiatives.
Events/trainings	Many coworking spaces offer many events, ranging from professional networking opportunities to more social interaction (game nights, watching sports, etc.). Many spaces also offer optional trainings or workshops on topics that are of interest to their tenants, such as how to fundraise, how to acquire customers, how to find health insurance or deal with taxes, etc.

However, two of these studies are published in practitioner journals, and focus on gauging the job satisfaction of freelancers (Spreitzer et al., 2015a) and advising large corporations if coworking is right for them (Spreitzer et al., 2015b). Although these studies validate the phenomenon and provide valuable advice, they are not based on data and instead rely mostly on anecdotes and conjectures. A third study by the same authors (Garrett et al., 2017) explores the formation process of a small coworking space in the Midwestern United States. Once again, however, the research is based on limited evidence (19 interviews) and the authors readily acknowledge the limited scope of their study and express hope that future studies will explore “the growing trend of coworking” (Garret et al., 2017:839).

A handful of studies in other fields have explored coworking (Spinuzzi, 2012; Bouncken and Reuschl, 2018; Parrino, 2015). Similarly, however, these studies are typically limited to anecdotes and conjectures, and call for more empirical research on the coworking experience. Though these studies once again validate coworking as an increasingly important phenomenon, overall what is lacking is an in-depth empirical study of the implications of coworking for entrepreneurship.

Although some relevant studies have addressed the implications of accelerators and incubators (Cohen, Bingham, and Hallen, 2018; Hallen, Cohen, and Bingham, 2018), coworking spaces are different in fundamental ways (see Table 3) and thus require separate attention. The main difference is that accelerators and incubators attract different types of participants. Accelerators and incubators have formal application processes in which startup companies are selected based on their potential for growth (with accelerators typically having a more stringent application process than incubators). As such, accelerators and incubators tend to admit higher-quality startups that have ambitions to raise venture capital funding and go public. While these types of new ventures have been of great interest to entrepreneurship scholars, they represent only a tiny fraction of the total number of new ventures in a given year (Aldrich and Ruef, 2018). Coworking spaces, on the other hand, have no such selection process – anyone who can pay the rent is allowed in. As a result, coworking spaces are generally full of more “everyday” entrepreneurs and have a much more diverse set of participants, including startups (of variable quality), small businesses, freelancers, independent workers and remote workers from larger corporations.

Another major difference between coworking spaces and accelerators/incubators is the *community* aspect. Although some work suggests that founders in accelerators and incubators benefit from their relationships with the other founders in their cohort (Cohen et al., 2018), this is typically not a primary motivation for applying to one of these programs. Rather, entrepreneurs typically apply for the formal mentorship opportunities provided by the program, and any help they receive from their peers is an added bonus. With coworking spaces, however, a primary motivation for joining is to be involved in a community of peers.

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**Table 3: Comparing Accelerators, Incubators, and Coworking Spaces**

Dimension	Accelerators	Incubators	Coworking spaces
Participants	High-potential startups	Startups	Startups, small businesses, freelancers, independent workers, remote workers
Amount of structure	High	Medium	Low
Application process?	Yes	Yes	No
Limited time?	Yes (program lasts 3-6 months)	Yes (typically stay 6-12 months)	No (tenants stay as long as they can pay rent)
Payment required	Takes portion of equity	Fee for service (sometimes equity)	Monthly rent
Purpose	Rapid growth	Nurturing development	Space, community
Amount of resources provided	High (seed capital, intensive mentoring/training, service providers, co-working space)	Medium (mentoring, service providers, co-working space)	Low (space, amenities, and occasional events)

This is the key aspect of coworking. If space was all that a founder needed, he or she could simply work from home or from a coffee shop, library or other public space. None of these spaces, however, provide the sense of community that exists in a coworking space. This is the reason many founders choose to pay the monthly coworking fee, rather than just working in a free space.

The concept of community is discussed in some sense in the literature on entrepreneurial ecosystems. Here, however, the focus is on the regional community (i.e., cities, metropolitan areas, etc.) with an emphasis on how certain areas can attract, nurture and retain more entrepreneurs than others (Spigel and Harrison, 2017; Spigel, 2017; Feld, 2012). These studies offer a macro-perspective of entrepreneurial communities and offer many recommendations to policy makers and local governments to improve the entrepreneurial ecosystem in their respective locations. What is missing, however, is a more mezzo-level understanding of how these communities interact and band together to help one another succeed.

In this paper, I address these gaps. Specifically, I explore whether coworking “works,” or in other words, whether it adds value for entrepreneurs. I also explore *why* coworking works, and *who* might benefit the most. In the sections that follow, I describe the methods and data used to explore these questions of interest.

## METHODS / DATA

Given the nascent nature of the phenomenon, I performed a mixed methods analysis of the founders working in a large coworking space in North Carolina. To do so, I collected data from a variety of sources:

**Survey:** First, for each of the past two years I administered an annual survey to all 800+ individuals working in the space. The survey focused on coworking – specifically, why the individuals had chosen to work at the space, what aspects of the space were most important to them, what percentage of their customers, employees and investors were found through connections with the space, how actively involved they are in the coworking community, the number of hours they spend at the space per week, etc. I also collected basic demographic information on the individuals and teams working in the space (age, race, gender, experience, titles, etc.) as well as basic performance information on their companies (age, stage of development, revenue, funding, employees, etc.). See Appendix A for a summary of the survey questions.

For the first survey (in 2017), there was a total of 909 individuals working in the space, and I received responses from 465 individuals, for a response rate of 51 percent. The number of individuals working in the space decreased in 2018 to 802, and I received responses from 309 of those individuals for a response rate of 39 percent. In terms of companies, there were 247 companies working in the space in 2017, and I received company-level information on 160 of them, for a response rate of 65 percent. In 2018 there were 224 companies in the space, and I received company-level information on 129 of them for a response rate of 58 percent. Table 4 summarizes this information, and Tables 12 and 13 provide descriptive statistics for the companies and individuals, respectively.

**Table 4: Survey Response Rates**

	Survey year	
	2017	2018
Individual response rate	465 / 909 = 51%	309 / 802 = 39%
Company response rate	160 / 247 = 65%	129 / 224 = 58%

**Interviews.** Second, in addition to the surveys, I performed more than 60 semi-structured interviews with individual founders working at the space. These interviews generally lasted 30-60 minutes, with an average of 45 minutes. I followed an interview guide (see Appendix B), which I modified throughout data collection to address emerging themes. In these interviews, I first asked the entrepreneurs to describe their venture and give a brief history. I then asked why they had initially chosen to work at the space, where they had worked before coming to the coworking space, what would make them leave the community, what they viewed as the primary advantages of working there, and also what they viewed

**Table 5: Descriptive Statistics - Companies**

Variable		1	2	3	4	5	6	7	8	9	10	11	12	13	14	Mean	S.D.	Q1	Mdn	Q3
<i>People_In_Space</i>	1	1.00														3.65	4.03	1.00	2.00	5.00
<i>Company_Age</i>	2	-0.01	1.00													3.67	3.51	1.25	2.59	4.59
<i>Employees</i>	3	0.54	0.24	1.00												2.72	4.04	0.00	1.00	4.00
<i>Jobs_created</i>	4	0.49	0.09	0.82	1.00											1.00	1.62	0.00	0.00	2.00
<i>Funding</i>	5	0.14	0.06	0.37	0.28	1.00										0.24	0.43	0.00	0.00	0.00
<i>Revenue</i>	6	0.20	0.13	0.20	0.11	0.09	1.00									0.79	0.00	1.00	1.00	1.00
<i>Cash_Flow</i>	7	0.08	0.34	0.03	-0.08	-0.22	0.64	1.00								0.52	0.50	0.00	1.00	1.00
<i>Intro_Customers</i>	8	-0.10	0.05	-0.14	-0.06	-0.16	0.40	0.27	1.00							1.52	0.74	1.00	1.00	2.00
<i>Intro_Investors</i>	9	0.09	-0.16	-0.01	0.10	0.05	0.10	-0.20	0.39	1.00						1.27	0.76	1.00	1.00	1.00
<i>Intro_Employees</i>	10	0.28	0.01	0.34	0.36	-0.02	0.13	-0.19	0.19	0.46	1.00					1.35	0.74	1.00	1.00	1.00
<i>Number_Founders</i>	11	0.20	-0.06	0.27	0.20	0.25	-0.05	-0.08	-0.03	0.09	0.10	1.00				1.70	0.97	1.00	2.00	2.00
<i>Searching_Cofounder</i>	12	-0.27	-0.28	-0.29	-0.24	-0.15	-0.25	-0.24	-0.17	-0.19	-0.20	0.03	1.00			1.43	0.72	1.00	1.00	2.00
<i>Growth_Plans</i>	13	0.15	-0.31	0.13	0.07	-0.09	-0.15	-0.23	-0.10	0.13	0.16	0.12	0.21	1.00		0.56	0.50	0.00	1.00	1.00
<i>For_Profit</i>	14	-0.10	0.03	0.04	-0.07	0.12	0.49	0.32	0.20	-0.05	-0.16	-0.36	-0.25	-0.06	1.00	0.93	0.26	1.00	1.00	1.00

Note: See Appendix C for variable definitions

**Table 6: Descriptive Statistics - Individuals**

Variable		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	Mean	S.D.	Q1	Mdn	Q3
<i>Solo</i>	1	1.00																					0.22	0.42	0.00	0.00	0.00
<i>Founder</i>	2	0.42	1.00																				0.33	0.47	0.00	0.00	1.00
<i>White</i>	3	-0.09	-0.07	1.00																			0.65	0.48	0.00	1.00	1.00
<i>Female</i>	4	-0.18	-0.27	-0.06	1.00																		0.33	0.47	0.00	0.00	1.00
<i>Age</i>	5	0.16	0.29	0.12	-0.26	1.00																	35.20	8.26	29.00	34.00	41.00
<i>Full_time</i>	6	-0.11	-0.04	0.06	-0.05	-0.08	1.00																0.81	0.39	1.00	1.00	1.00
<i>Hours_per_week</i>	7	0.00	0.21	0.02	-0.08	0.09	0.67	1.00															44.15	14.73	40.00	45.00	50.00
<i>Percent_at_AU</i>	8	-0.15	-0.18	0.00	0.01	-0.24	0.03	-0.13	1.00														0.69	0.33	0.50	0.75	0.90
<i>Community</i>	9	0.07	0.10	-0.19	-0.04	0.01	0.00	0.10	0.12	1.00													5.02	1.08	4.33	5.00	6.00
<i>Engagement</i>	10	0.12	0.25	-0.14	-0.02	0.09	-0.03	0.07	0.10	0.58	1.00												4.09	1.36	3.33	4.00	5.00
<i>Gap</i>	11	0.02	-0.23	0.02	0.01	0.02	0.01	-0.03	-0.09	0.04	-0.17	1.00											0.29	0.62	-4.00	0.00	5.00
<i>Mot_Social</i>	12	0.06	0.07	-0.22	0.09	-0.07	-0.06	0.04	-0.01	0.22	0.25	-0.19	1.00										6.11	1.02	5.50	6.50	7.00
<i>Mot_Money</i>	13	0.10	0.19	-0.13	-0.05	0.04	0.12	0.22	-0.09	0.13	0.14	-0.19	0.04	1.00									5.65	1.12	5.00	6.00	6.50
<i>Mot_Control</i>	14	0.04	0.11	-0.08	0.13	-0.10	-0.07	-0.11	-0.07	0.16	0.13	-0.16	0.22	0.30	1.00								5.87	1.16	5.00	6.00	7.00
<i>Imp_Space</i>	15	0.08	0.07	-0.02	0.03	-0.12	-0.07	-0.06	0.13	0.20	0.15	-0.24	0.07	0.10	0.14	1.00							6.12	1.02	5.50	6.00	7.00
<i>Imp_Connections</i>	16	-0.05	0.21	-0.24	0.10	-0.02	0.07	0.23	-0.09	0.24	0.27	-0.36	0.29	0.27	0.15	0.00	1.00						4.71	1.40	4.00	5.00	5.67
<i>Imp_Solutions</i>	17	0.06	0.15	-0.34	0.08	-0.05	-0.11	0.06	0.07	0.46	0.45	-0.35	0.34	0.23	0.24	0.12	0.59	1.00					5.17	1.14	4.40	5.20	6.00
<i>Imp_Community</i>	18	0.09	0.09	-0.16	0.07	-0.05	-0.06	0.04	0.07	0.38	0.36	-0.44	0.32	0.21	0.30	0.18	0.36	0.53	1.00				5.88	1.06	5.00	6.00	7.00
<i>Imp_Friendship</i>	19	0.16	0.01	-0.19	0.15	-0.07	-0.09	0.00	0.05	0.32	0.39	-0.27	0.23	0.13	0.27	0.14	0.40	0.54	0.66	1.00			5.11	1.26	4.50	5.00	6.00
<i>SC</i>	20	-0.08	0.15	0.09	0.01	-0.09	0.06	0.07	0.04	0.17	0.06	-0.19	0.26	0.25	0.25	0.08	0.21	0.13	0.18	0.06	1.00		4.12	0.69	3.83	4.00	4.67
<i>TC</i>	21	-0.09	0.11	-0.03	0.15	-0.17	0.05	0.04	-0.05	0.22	0.20	-0.15	0.23	0.16	0.29	0.15	0.22	0.20	0.20	0.19	0.60	1	4.03	0.76	3.33	4.00	5

Note: See Appendix C for variable definitions.

as the downsides of working in a coworking space as opposed to elsewhere.

**Archival documents.** Third, I relied on archival documents obtained from various sources. Mainly, I analyzed the conversations that occurred in more than 1,000 emails on the coworking space’s listserv. These conversations primarily included entrepreneurs asking for advice, seeking connections or setting up events and get-togethers. Analyzing these emails allowed me to better understand how the community was interacting. In addition, I relied on documents obtained from the space’s website, local and national news articles written about the space and internal reports from the coworking space’s management.

**Other.** Fourth, I spent more than 100 hours working on site and attending events at the coworking space. Spending time in the space myself gave me a better idea of what it is like for these entrepreneurs to work there, and to a certain degree, it allowed me to experience what they experience.

As is common in inductive research, a crucial aspect of my data collection and analysis was iteration. The process involved consistent iteration between theory, data and extant research. This iteration allowed me to delve deeper into emerging themes within my interviews and re-examine whether these themes fit with the new data I was collecting.

## PRELIMINARY FINDINGS

Preliminary findings suggest that coworking spaces offer many benefits to entrepreneurs. These benefits come from the coworking space itself, but also from the community within the space. In the two sections that follow, I first describe the benefits provided by the space, and I then describe the benefits provided by the community.

### BENEFITS OF THE COWORKING SPACE

**Efficiency:** Founders generally pay more per square foot at a coworking space than they would in a traditional office space. However, this is misleading because founders are buying more than space – they are also buying convenience. In a coworking space, founders spend less time worrying about utilities, internet, etc., and more time focused on building their company. For example, one founder said *“I don’t have to worry about anything. It’s just a monthly rent and everything is taken care of...I don’t have to worry about maintenance or worrying about when the Wi-Fi goes out...”* There is so much else to worry about when starting a new venture, and coworking helps take care of some of the little things so the founder doesn’t have to. In addition to the convenience factor, coworking spaces also give founders access to conference rooms, shared workspaces, free amenities, and other resources that otherwise they would not be able to afford by themselves. As one founder put it, *“It provides really nice access to things like...cool conference rooms, cool furniture, plants, coffee, etc....Startups don’t have a lot of money for these things. It’s shared, but it makes it all accessible.”*

**Flexibility:** Traditional office spaces typically require tenants to sign multi-year leases, but entrepreneurs are hesitant to do this because they do not know how quickly they will grow and need to move, or whether they will even be in business in a few months. As a result, conventional office space is often not an option. Coworking, however, provides a solution to this dilemma by offering month-to-month leases and flexible arrangements. As one founder put it, *“Real estate is so frequently a constraint for entrepreneurs....Coworking just about takes that off the table, because the commitment’s so minimal...”* Part of this flexibility is the modularity of the space. In other words, founders can start out by renting one or two

**Table 7: The Benefits of the Coworking Space**

Category	Explanation	Representative quotations
Efficiency	Tenants generally pay more per square foot at a coworking space than they would in a traditional office space, but they are essentially buying convenience. They spend less time worrying about utilities, internet, etc., and more time focused on their company. In addition, the price per square foot is often misleading because all tenants have access to conference rooms, shared workspaces, free amenities and other resources that entrepreneurs are often not able to afford by themselves.	<ul style="list-style-type: none"> <li>• “It was really nice to come in and just not have to worry about a lot of that practical stuff. And just be able to come in and really focus on trying to grow our business and reach towards our purpose in the company.”</li> <li>• “I don’t have to worry about anything. It’s just a monthly rent and everything is taken care of....I don’t have to worry about maintenance or worrying about when the Wi-Fi goes out.”</li> <li>• “I wasted so much time at my first two companies...designing these super-cool offices. I shudder to think how much money I wasted on that, and more importantly, time. So inefficient...”</li> <li>• “The price per square foot is higher, but the difference is convenience. I can walk in and start working without having to worry about utilities, internet, cleaning, etc...it’s worth it.”</li> <li>• “It’s so much more efficient. You pay more per square foot, but that’s misleading because we have all the conference rooms and everything...”</li> <li>• “It provides really nice access to things, like the facilities and stuff that we wouldn’t have if we just had to go rent our own office. Cool conference rooms, cool furniture, plants, coffee, etc....Startups don’t have a lot of money for these things. It’s shared, but it makes it all accessible.”</li> </ul>
Flexibility	Traditional office spaces often require tenants to sign multi-year leases, but entrepreneurs are hesitant to do this because they do not know how quickly they will grow and need to move, or whether they will even be in business in a few months. Coworking provides a solution by offering month-to-month leases and flexible arrangements.	<ul style="list-style-type: none"> <li>• “In traditional office spaces, the lease you have to sign is typically like a three year lease at least, usually five or ten years. Here, you come in, it’s month to month, you know? If you need more space you just call whoever, and next thing you know you’ve got two rooms instead of one.”</li> <li>• “It’s so modular and flexible, right? If you need more space, you add a new office. If you need to shrink, you get rid of one of your offices.”</li> <li>• “When we first moved in we were like, oh, month to month lease. If we can’t get clients, we’ll drop it.”</li> <li>• “Real estate is so frequently a constraint for entrepreneurs...Coworking just about takes that off the table, because the commitment’s so minimal....And it’s helpful in both directions, not just if you grow faster than you expected, but also you can shrink and go into a smaller space without having to find a sub-tenant or get into all kinds of complexities.”</li> </ul>
Legitimacy	Coworking spaces help new ventures appear bigger or more legitimate than they really are. For example, when companies host potential clients, investors or hires, they are able to hold these meetings in a conference room in a professional setting, rather than a home office or a coffee shop.	<ul style="list-style-type: none"> <li>• “I don’t know where we’d be if we didn’t work here....Honestly, it would have really constrained our growth potential because we couldn’t have taken our client meetings at a home office or in a garage or at a coffee shop.”</li> <li>• “The space was huge for recruiting. So when we were bringing people in and selling them on this vision like ‘our company is gonna be huge someday. You wanna be part of it and this is really a cool place to work.’ That was huge.”</li> <li>• “Especially when you’re trying to recruit people—that was our move. Bring people back to the space, take them for a walk around, and they’d be like, ‘Wow, this is such a cool place. This is where things are happening.’ It really helped sell the opportunity for us.”</li> <li>• “We’re always having folks come—like partners—come visit us, and it’s just so nice to have, be like, ‘Oh, yeah, I booked this conference room.’”</li> <li>• “There’s growth-stage companies here who’ve really made it, and you’re kind of lumped in with some of that success and it adds some validation, and it’s not like I’m working on a project in my garage. And I think that’s really important mentally, as much as you wanna say you don’t care what other people think. It does matter sometimes.”</li> </ul>

desks, and then add more desks or private offices as they grow. Conversely, if a company needs to shrink its headcount, it can simply take away an office or desk. As one founder said, *“It’s so modular and flexible....If you need more space, you add a new office. If you need to shrink, you get rid of one of your offices.”* Thus, although real estate is frequently a constraint,

the modularity and flexibility of coworking spaces helps mitigate these issues.

**Legitimacy:** The third benefit of the coworking space is that it can give entrepreneurs an extra degree of legitimacy. When founders work from home or out of a garage, one challenge is that they have no place to host meetings with potential customers. Oftentimes they are forced to take these meetings at a coffee shop or restaurant, but this is often a mistake, since the founder has no control over the environment, and the professional perception of the business is often decreased. Coworking provides a solution, as it allows founders to hold these meetings in a conference room in a professional setting. This can make a world of difference. For example, one founder said, *"I don't know where we'd be if we didn't work here....Honestly, it would have really constrained our growth potential because we couldn't have taken our client meetings at a home office or in a garage or at a coffee shop."* In fact, a few of the founders I spoke with paid the monthly coworking fee for the sole purpose of using the conference rooms for client meetings.

Overall, coworking spaces help overcome several issues related to real estate, which is frequently a constraint for entrepreneurs. The benefits include efficiency (by saving entrepreneurs time and money), flexibility (by allowing new ventures to grow or shrink on an as-needed basis), and legitimacy (by providing a professional setting where entrepreneurs can take clients, investors or hires). These benefits, along with representative quotations from my interviews, are summarized in Table 7.

## BENEFITS OF THE COWORKING COMMUNITY

Despite the many benefits of the space described above, early findings suggest that the primary reason founders choose to work in a coworking space is not for the space itself, but rather for the community within the space. In fact, I find that many entrepreneurs pay the monthly coworking fee and then rarely ever actually work in the space; rather, their motivation is to be part of the community, and thus they pay the fee to have access to events, networking opportunities, the organization's listserv or community news. The benefits that the community provides include (1) connections, (2) solutions, (3) energy/motivation, and (4) social support. These benefits are summarized in Table 8, and I provide more detail in the sub-sections below.

**Connections:** Extant research suggests that entrepreneurs use both strong and weak ties to mobilize resources (Aldrich and Zimmer, 1986). Many of these studies also suggest that entrepreneurs tend not to search beyond their pre-existing networks (i.e., family, friends, former co-workers, etc.), meaning entrepreneurs are often constrained by their personal background (Clough et al., 2018; Ruef et al., 2003). However, when entrepreneurs join a coworking space, they automatically join a community of weak ties. Coworking spaces offer unprecedented opportunities for networking just by putting entrepreneurs in physical

**Table 8: The Benefits of the Coworking Community**

Category	Explanation	Representative quotations
Connections	Coworking spaces offer unprecedented opportunities for networking just by allowing entrepreneurs to be in physical proximity to other startups, and through events and other formal activities offered. These interactions often lead to referrals for new clients, employees, investors, service providers, etc.	<ul style="list-style-type: none"> <li>• “With fundraising, we’ve gotten to know people who know people, and then we can reach out to them.”</li> <li>• “I think just the physical proximity to other people who are doing what you’re doing....Nothing will ever compare to those spontaneous connections you make in the kitchen, or walking in the hall....It’s just been great networking, just by physical proximity.”</li> <li>• “You build a lot of connections, just people that you talk to when you’re going to get coffee, things like that....A lot of those connections come to pay off over time, where somebody knows an investor you want to meet with. They introduce you, or they talk to a potential customer about your product...”</li> <li>• “It’s helped us, as a company, get a lot of connections. We have been able to network quite a bit through AU and get opportunities we probably would never have gotten if it wasn’t for AU. It’s a huge resource.”</li> </ul>
Solutions	Entrepreneurs, especially first-time entrepreneurs, often do not have the experience or knowledge to navigate the complexities of starting a new venture. As such, many entrepreneurs rely on help from other members of the community to solve problems and answer questions.	<ul style="list-style-type: none"> <li>• “If you don’t know how to do this or you don’t know how to do that, there’s somebody around here who has an idea and people are super generous with their time. It’s truly a community.”</li> <li>• “It’s great, because if I have a development problem, I can go ask other developers like, ‘Hey, can you look at this?’”</li> <li>• “The community is big...I feel that you can reach out to anybody here, if you need to know something, learn something, and that’s huge when you’re a startup.”</li> <li>• “The mailing list that they have here is a gold mine. If you have a problem, people have a solution for you or if they don’t, they know someone, so it’s a great tool.”</li> <li>• “People here have very similar struggles, even if it’s outside my industry, like managing teams, or fundraising, or dealing with regulatory [problems], this and that. Fellow entrepreneurs can share tips and tricks.”</li> </ul>
Energy/Motivation	Being surrounded by other entrepreneurs is often energizing and motivating. The passion and intensity with which most entrepreneurs go about their work is usually contagious. Thus, many of the entrepreneurs considered one main advantage to be the environment, or the “vibe” that existed within the space.	<ul style="list-style-type: none"> <li>• “Getting to come to a place like this, where there is a buzz about it, is something that I think helps motivate our people. I think that’s really important.”</li> <li>• “You kind of see the same people all the time and see them progress. It pushes you too...We get energized by what’s going on and the other community members.”</li> <li>• “It’s inspiring. It’s nice to see so many people also so passionate about what they’re doing. That’s the common thread. It doesn’t matter what it is they’re doing, they’re just passionate about it. And that feels good.”</li> <li>• “There is a contagious energy to being around other people. Just being around other people, working where they are, makes you work harder and gives you energy”</li> <li>• “I like the community....Definitely as a sole founder, if I am working alone somewhere, it’s better to work around a lot of other companies and kind of feed off their energy...”</li> <li>• “That feeling like I’m a part of this movement, and this larger community is just tremendous.”</li> </ul>
Social support	Entrepreneurial work can sometimes be isolating and lonely. The friendships developed between entrepreneurs at coworking spaces can alleviate some of these downsides. These friendships are important, as they provide social support when times get tough, or simply make the entrepreneurs’ work more enjoyable.	<ul style="list-style-type: none"> <li>• “For me, it’s really the social support....having other people to vent to if you have a project that’s really frustrating or a client that’s giving you trouble, or I’m just mad at my cofounder for some reason.”</li> <li>• “When I’ve been able to sit down and have conversations with other entrepreneurs...you could say it’s a little bit like a therapy session, talking about all the ups and downs...”</li> <li>• “Community is important. It’s like some of us went out for beers the other night and it’s just really nice to be around other people going through this.”</li> <li>• “When I moved to this area, I wanted to put together a community of people to support me because it’s hard to go it alone. Just psychologically. You kind of need to feel like you’re doing a real thing, not you’re a crazy person working on your own thing.”</li> <li>• “I feel like I’m around other people doing something similar to what I’m doing, and it makes me feel better about myself. It’s like the very psychological feeling that there is a shared experience happening around me, and that’s really important. It gets me out of my house.”</li> </ul>

proximity to other startups, and through events and other formal activities offered. These interactions often lead to referrals for new clients, employees, investors, service providers, etc. For example, one founder said, *"You build a lot of connections, just people that you talk to when you're going to get coffee, things like that....A lot of those connections come to pay off over time, where somebody knows an investor you want to meet with. They introduce you, or they talk to a potential customer about your product..."* Many founders cited the ability to make connections as a key benefit of the coworking community. As one said, *"I honestly feel that we probably would not be anywhere near as successful if it weren't for this place.... We've had a lot of clients come from other people here through some sort of network effect."*

**Solutions:** Entrepreneurs, especially first-time entrepreneurs, often do not have the experience or knowledge to navigate the complexities of starting a new venture. As such, many entrepreneurs rely on help from other members of the community to solve problems and answer questions. For example, one founder said, *"The community is big for entrepreneurs and I feel that you can reach out to anybody here if you need to know something, learn something, and that's huge when you're a startup."* The community listserv was especially useful for this purpose, with founders constantly asking questions (e.g., *"Anyone have suggestions on writing a press release?"* or *"What do you use for payroll?"*), and other founders responding with suggestions and solutions. As entrepreneurs developed relationships with other people in the community, they began to have a better understanding of who had what knowledge or skillsets, and were able to take advantage accordingly. As one founder said, *"For us to be able to go up a floor to solve a problem or down a floor to ask a question is invaluable."* Overall, the coworking community can resolve many of the everyday practical challenges that entrepreneurs face when starting a new venture.

**Energy/motivation:** Many of the entrepreneurs I interviewed mentioned the "buzz" or the "vibe" of the space as being an intangible yet important attraction to working in the space. Being surrounded by other entrepreneurs is often energizing and motivating. For example, one founder said, *"You kind of see the same people all the time and see them progress. It pushes you too.... We get energized by what's going on and the other community members."* The passion and intensity with which most entrepreneurs go about their work is usually contagious. As one founder shared, *"It's inspiring. It's nice to see so many people also so passionate about what they're doing. That's the common thread. It doesn't matter what it is they're doing, they're just passionate about it. And that feels good."* These feelings of energy and inspiration are generally a welcome change from working from home, where it is easy to feel isolated and disconnected from the rest of the world. This energy pushes entrepreneurs to work harder and gives them a sense of purpose.

**Social support:** The entrepreneurial process can take a psychological toll on founders, as founding a new venture is an enormous task that requires countless hours of hard work, stress, emotional ups and downs, isolation, ambiguity and, at times, utter hopelessness. However, the friendships developed between entrepreneurs in a coworking community can help alleviate some of these stresses. For example, one founder said, *"When I've been able to sit down and have conversations with other entrepreneurs...you could say it's a little bit like a therapy session, talking about all the ups and downs."* Another shared, *"For me, it's really the social support...having other people to vent to if you have a project that's really frustrating or a client that's giving you trouble, or I'm just mad at my cofounder for some reason."* In addition, the community can help validate what the entrepreneur is doing. Many entrepreneurs have family and friends who do not understand why someone would work in a startup rather than having a high-paying and steady corporate job. This can make entrepreneurs doubt themselves. However, working alongside other like-minded entrepreneurs helps them feel validated, reminding them that they are doing something important and impactful. As one founder shared, *"It's been helpful just psychologically to not feel like I'm off on my own doing some crazy thing, but that there are other people going through this....All my family and friends have stable jobs and are on a track. Those people are supportive, but they also might think you're a little bit crazy. It's nice to be around the people who get it and they don't think you're crazy."*

Overall, most of my interviewees described the community as invaluable. As one interviewee said, *"There are so many advantages, honestly. I'm hesitating because I don't really know where to start. I think if you have an idea or you have a business in and around this area, in my opinion, this is the best place to start."* These advantages include connections (to potential customers, hires, investors, etc.), solutions (ranging from important issues around product development to more mundane issues like setting up payroll), energy/motivation (emanating from the passion and purpose with which the community pursues their projects), and social support (providing friendship and encouragement when times get tough). These benefits are only possible due to the concentration of entrepreneurs in one space.

Intriguingly, my preliminary findings seem to suggest that entrepreneurs value the community *more* than the actual space itself. For example, one founder acknowledged the benefits of the space but shared, *"I think the big advantage is...this kind of community."* Similarly, another briefly mentioned the benefits of the space, but then said, *"The biggest value of [coworking] has been the friends you make along the way, [that] would be the way to frame it. I've just been blown away by how giving the community is."* A coworking community provides many benefits that have historically not been available to entrepreneurs, and they embraced those benefits wholeheartedly. Founders expressed feelings such as, *"The benefits are innumerable. They've helped us immensely. We wouldn't be where we are*

right now without them," or "You can make the most of your business here." One founder put it more eloquently:

*"There's this idea that you are the average of the five people you spend the most time with. I think sometimes as a startup, it's almost similar, you're the average of the five startups you surround yourself with the most. And so I think the opportunity to be a part of a growing successful community...is that opportunity to surround yourself with other companies that are going after a lot of the same things. And so I can't imagine doing it another way."*

Having established these benefits, however, the natural follow-up question is whether some entrepreneurs benefit more than others. In the following section, I discuss early findings in response to this question.

## WHO BENEFITS THE MOST?

Table 9 presents a simple OLS regression of who feels the most sense of community in the coworking space. I first examine whether *individuals* (i.e., solopreneurs, freelancers, etc.) or startup *teams* benefit more from coworking spaces. The little research that does exist on coworking (Spreitzer et al., 2015a; 2015b; Garret et al., 2017) suggests that it is most beneficial for individuals. The logic is that individuals in teams already have some sense of community from their other team members, and thus would not need to rely on the coworking community as much. Individuals, on the other hand, have no team members to rely on and thus need the coworking community more. Some of the individuals I interviewed expressed this same notion, saying, "I like the community. Definitely as a sole founder, if I am working alone somewhere, it's better to work around a lot of other companies and kind of feed off their energy." In fact, Garrett et al. (2017) studied one coworking space that resisted teams altogether and would only allow individuals to work in their space. Their fear was that sub-groups would form and that the teams would only associate with their fellow team members and not with others in the community, and they wanted to avoid that as much as possible.

However, the survey data suggest that *teams* actually benefit more from the community than *individuals* (see Table 9). My interviews suggest some insight into why this may be the case. For example, I interviewed one founding team that consisted of two brothers starting a software company. The first brother was more reserved and had a difficult time meeting others in the community by himself. The second brother, however, was very outgoing and loved meeting new people. The first brother described the second brother as being "halfway the mayor... he knows a ton of people." Thus, the second brother built many relationships with other people in the coworking space and then introduced these people to his brother. I interviewed another team with a similar dynamic. The team

**Table 9: OLS Regression for Who Feels the Most Sense of Community**

VARIABLES	Community (1)
<i>Solo</i>	-0.2809* (0.065)
<i>Founder</i>	0.3138** (0.018)
<i>White</i>	-0.3346*** (0.003)
<i>Female</i>	-0.1016 (0.366)
<i>Age</i>	-0.0119* (0.090)
<i>Full_Time</i>	-0.1318 (0.360)
<i>Percent_at_AU</i>	0.2071 (0.294)
<i>Move</i>	0.0603 (0.660)
<i>HQ</i>	0.3150 (0.249)
<i>Company_Age</i>	0.0402** (0.018)
<i>Funding</i>	-0.2276* (0.050)
<i>2018_year</i>	-0.1946* (0.069)
<i>Constant</i>	5.3546*** (0.000)
Observations	428
Adjusted R-squared	0.073

Note: See Appendix C for variable definitions.

consisted of three founders, two of whom were not always great at meeting new people. However, they described their third founder as having “*connections out the wazoo...He knows everybody.*” Once again, this founder would meet new people in the space on a regular basis, and then introduce them to his two other founders. As a result, he helped his two cofounders become more involved in and committed to the community, whereas if they had been working in the space individually they might not have interacted much with others at all. Thus, teams are likely to benefit more in coworking spaces because team members’ strong ties (Granovetter, 1977) with each other help them connect to one another’s weak ties.

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Preliminary findings suggest that the primary reason that people choose to work in a coworking space is not for the space itself, but rather for the community within the space.

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In addition to this distinction between individuals and teams, Table 9 reveals other groups that benefit more from the space. For example, I surveyed both founders and employees in the coworking space, and the regression appears to show that founders benefit more from the community than employees. In terms of demographics, the people who appear to benefit the most from the community include younger people, non-white individuals and those who work full-time on their venture (as opposed to part-time).

## POTENTIAL CONTRIBUTIONS

Coworking spaces represent a novel type of workspace for entrepreneurs. Given its rapid rise, the implications of coworking have been largely unstudied. This paper offers some exploratory insights into whether coworking “works,” and when it works best. Preliminary findings suggest that the primary reason that people choose to work in a coworking space is not for the space itself, but rather for the community within the space. In fact, I find that many entrepreneurs pay the monthly coworking fee and then rarely ever actually work in the space; rather, their motivation is to be part of the community, and thus they pay the fee to have access to events, networking opportunities, the organization’s listserv or community news. The community helps founders solve problems, give feedback and new ideas, or just simply provide friends and social support when times get tough. Overall, the data suggest that coworking spaces are providing unprecedented ways for entrepreneurs to form communities with each other and thus interact with, learn from and mimic their peers.

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## APPENDIX A: SURVEY QUESTIONS

1. Please select which role best describes you:
  - a. Founder/Co-founder
  - b. Site Leader (for co's not headquartered in AU)
  - c. Employee
  
2. Are you currently searching (or expecting to search in the future) for another co-founder? (Yes/No/Maybe)
  
3. Please select the following that best describes your company's growth plans:
  - a. Don't intend to grow any larger
  - b. Intend to grow somewhat larger, but not much
  - c. Intend to grow much larger
  - d. Other \_\_\_\_\_
  
4. Please select the following that best describes your company (For-profit/Not-for-profit)
  
5. In the history of your company, have you ever raised or used capital from the following sources? Check all that apply: Bank Loans, Personal Investment, Friends and family, Angel Investors, Venture Capital, Crowdfunding, Accelerator, Grants, Other
  
6. Of all your investors/other capital providers, how many did the AU community help you find?
  - a. None
  - b. A small percentage of my investors/capital providers
  - c. A moderate percentage of my investors/capital providers
  - d. A significant percentage of my investors/capital providers
  - e. All of my investors/capital providers
  
7. In the last year, how much capital did your business raise? \_\_\_\_\_
  
8. As of September 30, 2018, please indicate the *total* number of employees in the following categories: (Full-time, Part-time, Contractors)
  
9. In the past year, how many *net* positions did your company *create* in the following categories? (Full-time, Part-time, Contractors)
  
10. Out of all your employees, how many has the AU community helped you find/hire?
  - a. None
  - b. A small percentage of my employees

- c. A moderate percentage of my employees
  - d. A significant percentage of my employees
  - e. All of my employees
11. Has your company ever earned revenue? (Yes/No)
12. Approximate the annual revenue of your company:
- a. Under \$10,000
  - b. \$10,000 to \$50,000
  - c. \$50,000 to \$100,000
  - d. \$100,000 to \$500,000
  - e. \$500,000 to \$1 Million
  - f. \$1 Million to \$10 Million
  - g. \$10 Million to \$50 Million
  - h. \$50 Million+
  - i. Don't know
  - j. Prefer not to answer
13. Out of all your customers, how many has the AU community helped you find?
- a. None
  - b. A small percentage of my customers
  - c. A moderate percentage of my customers
  - d. A significant percentage of my customers
  - e. All of my customers
14. As of September 30, 2018, is your company cash flow positive? (Yes/No)
15. How long have you been working with your company? \_\_\_\_\_
16. Using a 7-point Likert scale, I asked respondents to rate the degree to which they agreed that AU performs well on these dimensions: opportunities to gain publicity, opportunities to learn, opportunities for mentorship, opportunities for professional networking, opportunities for social networking, connections to potential customers, connections to potential investors, connections to potential employees, social support/friendship, new ideas, feedback on my ideas, improvements to my company's product/service, solutions to specific problems, referrals to others who can assist, somewhere to work besides home, dedicated space to work, monthly cost, the aesthetics of the space, the amenities of the space, an innovative environment, a sense of professionalism, a sense of energy, a sense of collegiality, a sense of community.
17. Using a 7-point Likert scale, I also asked respondents to rate how important

the items in question 16 were to them.

18. Using a 7-point Likert scale, I asked respondents to rate the degree to which they agree with the following statements:
  - a. I actively try to meet other people at AU
  - b. I actively seek out advice from others at AU
  - c. Other people at AU seek me out for advice
  
19. Using a 7-point Likert scale, I asked respondents to rate the degree to which they agree with the following statements:
  - a. I feel connected to the AU community
  - b. I feel accepted by others in the AU community
  - c. People at AU are good at influencing each other
  
20. Using a 7-point Likert scale, I asked respondents to rate the degree to which they agree with the following statements:
  - a. Being a part of the AU community energizes me
  - b. Being at AU gives my company more legitimacy
  - c. Working at AU is more cost effective than other alternatives
  - d. Overall, I would recommend working at AU to a friend
  - e. The Triangle entrepreneurial community (at large) has positively impacted my business' current and/or future success.
  
21. Using a 7-point Likert scale, I asked respondents to indicate the extent to which they agreed with the following statements as motivations for why they are working on their particular company:
  - a. To develop a highly profitable company
  - b. To make new connections in the entrepreneurial community
  - c. To work with people I like
  - d. To make the world a better place
  - e. To work on something I'm passionate about
  - f. To gain new skills
  - g. To work in an innovative environment
  - h. To gain entrepreneurial experience
  - i. To have fun
  - j. To have greater flexibility for my personal life
  - k. To make money
  - l. To help others
  - m. To control my own time
  - n. To develop a cool/important product
  - o. To avoid working in a big company
  - p. To provide financial security for me and/or my family

22. Using a 5-point Likert scale, I asked respondents to rate how much they agreed with the following:
  - a. My team and I agree on the strategic goals of the company
  - b. My team and I agree on the short-term business objectives that should be considered the most important
  - c. My team and I agree on the best ways to ensure the company's survival
  
23. Using a 5-point Likert scale, I asked respondents to rate how much they agreed with the following:
  - a. Team members have a close relationship with each other
  - b. Team members like to spend time together outside of work
  - c. Team members consider themselves personal friends
  
24. Using a 5-point Likert scale, I asked respondents to rate how much they agreed with the following:
  - a. I feel connected to my company
  - b. I feel accepted by others in my company
  - c. People at my company are good at influencing each other
  
25. Are you currently working full-time with your AU company? (Yes/No)
  
26. On average, how many hours per week do you spend working on your AU company? \_\_\_\_\_
  
27. How many of those hours are spent working at an AU location? \_\_\_\_\_
  
28. Using a 5-point Likert scale, I asked respondents to rate how often they were at AU in the morning, afternoon, and evening
  
29. Before coming to AU, where did you work on your company? (select all that apply)
  - a. Home
  - b. Other rented office space
  - c. Other coworking space
  - d. Public place (coffee shop, library, university, etc.)
  - e. Other \_\_\_\_\_
  
30. What is your job title? \_\_\_\_\_
  
31. Please self-describe your gender (Male/Female)
  
32. Please self-identify your race/ethnicity (select all that apply)

33. In what year were you born? (again, this will remain confidential) \_\_\_\_\_
34. Total number of years you have worked in/with startup companies: \_\_\_\_\_
35. Is this the first company you have founded? (Yes/No)
36. When was your AU company founded? (If no official founding date, when did you begin actively working on the business?)
37. How many people founded your company?
38. Did you move to the Triangle to start/join your business or team? (Yes/No)

## APPENDIX B: INTERVIEW GUIDE

Date: \_\_\_\_\_ Respondent: \_\_\_\_\_  
Researcher 1: \_\_\_\_\_ Title: \_\_\_\_\_  
Researcher 2: \_\_\_\_\_ Company: \_\_\_\_\_

### INTRODUCTION (2 MINUTES)

- A. Provide background of interviewer.
- B. Discuss information privacy: All information will remain confidential. Information gained from respondents at one interview will not be shared with respondents at another. Further, in the write-up, all corporate and individual names will be changed to mask identities.
- C. Ask permission to begin recording the interview. Recording interviews helps us capture all relevant points that we might miss. People, places, and figures are anonymized so identities are safe. Only researchers see data.
- D. Outline the flow of the interview. The interview consists of these sections:
  - a. First, I will ask you general background questions about your company.
  - b. Second, I will ask you about your founding history.
  - c. Finally, I will ask you questions about what it is like working at this coworking space.

## SECTION 1: BACKGROUND QUESTIONS (10 MINUTES)

*TRANSITION: First, I would like to ask a few questions about the company.*

1. Can you give me a quick overview of your company?

Prompts:

- Products/services provided:
- Current stage of development:
- Strategy or business model (customer pain point, differentiated solution, profit formula, technology and operations strategy, market plan)
- Traction (do you have customers, etc.?)
- Growth plans (where do you expect the company to be in 1 year? 5 years?)

## SECTION 2: COMPANY HISTORY (20 MINUTES)

2. *TRANSITION: Thank you for providing that information. Now, I would like to ask several questions so I can better understand the history of your team. On the business bestseller list, there are books written about the important businesses (e.g., Google, Apple, Amazon, etc.). Pretend you are telling such a story about your company. Please focus *chronologically* on how your team was formed and how your company has evolved. I may interrupt you to clarify.*

## SECTION 3: COWORKING QUESTIONS (20-30 MINUTES)

*TRANSITION: Thank you. I want to transition now to a final set of questions. Specifically, I'm interested in knowing more about your experience working at this coworking space.*

3. Why did you choose to work in this coworking space? What were the most important considerations? [Prompt: financial concerns, making connections, productivity of employees, etc.]
4. What were your alternatives to working here, and why did you not choose those?
5. Hypothetically, if this space were to no longer exist, where would you

work?

6. What (if any) are the advantages of working out of the space?

Prompts:

1. Connections (customers, investors, employees, mentors, collaborators)
2. New ideas
3. Feedback on ideas
4. Social support/friendship
5. Opportunities to gain publicity
6. Energy

7. What (if any) are the disadvantages of working out of the space?

Prompts:

1. Are you afraid about other companies stealing ideas, customers, employees, etc.?
2. What (if any) types of distractions are at the space? [Prompt: Do you spend too much time socializing with others, going to events, etc.?
3. If you could, would you change anything at the space? If so, what?

8. How different vs. similar are you to the other companies in the space, in terms of industry, stage of development, etc.?

- a. Do you wish that there were more or fewer companies like you in the space?

9. Have you collaborated with any other companies in the space? If so, how?

10. Has working here changed the culture of your company? If so, how?

11. What are people's reactions when you tell them you work here? Investors? Employees? Clients/customers? Overall, does working here help or hurt your image?

12. What would it take for your or your company to leave the space?

13. Overall, how would your company be different if you worked somewhere other than here?

## CONCLUSION

14. Did we miss anything? What other advice would you give to future entrepreneurs?

**IMPORTANT: Ask them if it is ok to do follow-up interviews over the next few months.**

## APPENDIX C: VARIABLE DEFINITIONS

Age – The individual's age (in years) at the time of the survey.

Cash Flow – Binary variable taking the value of 1 if the company is cash-flow positive, and 0 otherwise.

Community – Measures the extent to which the individual feels a sense of community in the coworking space. This measure is calculated by taking the average rating from a three-item scale (see question 19 in Appendix A).

Company Age – The company's age (in years) at the time of the survey

Employees – Total number of full-time employees reported by the company at the time of the survey.

Engagement – Measures the extent to which the individual is engaged in the coworking community. This measure is calculated by taking the average rating from a three-item scale (see question 18 in Appendix A).

Female – Binary variable taking the value of 1 if the individual is female, and 0 otherwise.

For Profit – Binary variable taking the value of 1 if the company reported they were a for-profit (as opposed to non-profit) organization, and 0 otherwise.

Founder – Binary variable taking the value of 1 if the individual is a founder.

Full Time – Binary variable taking the value of 1 if the individual reported they were working on their venture full-time at the time of the survey, and 0 otherwise.

Funding – Binary variable taking the value of 1 if the company has received outside funding from VCs or angels, and 0 otherwise

Gap – Measures the extent to which the coworking space is not filling the individual's needs. I asked respondents to rate how the coworking space performed on a variety of dimensions (see question 16 in Appendix A), as well as how important those dimensions were to them (see question 17 in Appendix A). I took the rating for each item in question 16

and subtracted the rating for the same item in question 17. For example, if someone gave the coworking space a rating of 6 for how it performed on “monthly cost” (question 16), and then rated “monthly cost” as a 7 for how important it was to them (question 17), the gap would be -1. To calculate this particular measure, I summed up the gap for all items in question 16/17.

*Growth Plans* – Binary variable taking the value of 1 if the company reported that they were planning to grow much larger (0 if they reported that they planned to not grow much larger or stay the same size).

*Hours Per Week* – The number of hours that the individual works on their venture in a typical week, as reported by the individual at the time of the survey.

*HQ* – Binary variable taking the value of 1 if the company is headquartered at the coworking space, and 0 otherwise.

*Imp\_Community* – Measures the extent to which a sense of community is important to the respondent. I asked respondents to rate how important different aspects of the community were to them (see question 17 in Appendix A). This measure was calculated as the average rating for these two items: “A sense of collegiality; A sense of community.”

*Imp\_Connections* – Measures the extent to which a making connections is important to the respondent. I asked respondents to rate how important different aspects of the community were to them (see question 17 in Appendix A). This measure was calculated as the average rating for these two items: “Connections to potential customers; Connections to potential investors.”

*Imp\_Friendship* – Measures the extent to which a making friends in the coworking space is important to the respondent. I asked respondents to rate how important different aspects of the community were to them (see question 17 in Appendix A). This measure was calculated as the average rating for these two items: “Opportunities for social networking; Social support/friendship.”

*Imp\_Solutions* – Measures the extent to which generating solutions is important to the respondent. I asked respondents to rate how important different aspects of the community were to them (see question 17 in Appendix A). This measure was calculated as the average rating for these five items: “New ideas; Feedback on my ideas; Improvements to my company’s product/service; Solutions to specific problems; Referrals to others who can assist.”

Imp\_Space – Measures the extent to which the space itself is important to the respondent. I asked respondents to rate how important different aspects of the community were to them (see question 17 in Appendix A). This measure was calculated as the average rating for these two items: “Somewhere to work besides home; Dedicated space to work.”

Intro\_Customers – Measures the extent to which the coworking community has helped the company find customers, with a higher rating indicating that the space has helped them find more customers (see question 13 in Appendix A).

Intro\_Employees – Measures the extent to which the coworking community has helped the company find employees, with a higher rating indicating that the space has helped them find more employees (see question 10 in Appendix A).

Intro\_Investors – Measures the extent to which the coworking community has helped the company find investors, with a higher rating indicating that the space has helped them find more investors (see question 6 in Appendix A).

Jobs\_Created – The number of full-time positions created by the company in the past year, as reported by the company at the time of the survey.

Mot\_Control – Measures the extent to the entrepreneur is motivated by control. I asked respondents to rate how much they were motivated by a variety of factors (see question 21 in Appendix A). This particular measure was calculated as the average rating for these two items: “To have greater flexibility in my personal life; To control my own time.”

Mot\_Money – Measures the extent to the entrepreneur is motivated by control. I asked respondents to rate how much they were motivated by a variety of factors (see question 21 in Appendix A). This particular measure was calculated as the average rating for these two items: “To develop a highly profitable company; To make money.”

Mot\_Social – Measures the extent to the entrepreneur is motivated by control. I asked respondents to rate how much they were motivated by a variety of factors (see question 21 in Appendix A). This particular measure was calculated as the average rating for these two items: “To make the world a better place; To work on something I’m passionate about.”

Move – Binary variable taking the value of 1 if the entrepreneur moved to the area from another city to start their business, and 0 otherwise.

Number\_Founders – The number of founders that originally founded the business.

People\_In\_Space - The number of people in that company who work in the coworking space.

Percent\_at\_AU - Of the total number of hours

Revenue - Binary variable taking the value of 1 if the company has already started earning revenue, and 0 otherwise.

SC - SC stands for Strategic Consensus, and is measured consistent with prior research (Miller et al., 1998; Vissa and Chacar, 2009) using a three-item scale (see question 22 in Appendix A). SC was calculated by taking the average rating for these three items.

Searching\_Cofounder - Binary variable taking the value of 1 if the company reported it was still looking for an additional cofounder at the time of the survey, and 0 otherwise.

Solo - Binary variable taking the value of 1 if the individual is the only person from his/her company who works at the coworking space, and 0 otherwise.

TC - TC stands for Team Cohesion, is measured consistent with prior research (Miller et al., 1998; Vissa and Chacar, 2009) using a three-item scale (see question 23 in Appendix A). TC was calculated by taking the average rating for these three items.

White - Binary variable taking the value of 1 if the individual reports their race as White/Caucasian, and 0 otherwise.

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