20. Country Report of the United States ¹

20.2 Current Status of Women Entrepreneurs of the United States

Characteristics of Women Entrepreneurs

In the post-2008 US economy, entrepreneurs are regarded as one of the most important contributors to new wealth and new jobs (Cohoon, Wadhwa and Mitchell, 2010). Entrepreneurs are also inventors of new products and services, and revolutionize society and the economy. However, despite their prominence in the US, not much has historically been known about their motivations, or where they come from, or their reasons for success, and even less has been known about female entrepreneurs in particular (Cohoon, Wadhwa and Mitchell, 2010).

Although the statistics around women entrepreneurs in the US are on the sparse side, it is estimated that in 1976, approximately 700 thousand women-owned businesses in the US generated \$41.5 million dollars in revenue that year (Brush et al., 2003). Additionally, it was discovered that there were 1.5 million women entrepreneurs in the US in 1972, 2.1 million by 1979, 3.5 million by 1984, and 9.1 million by 1999, employing a total of 27.5 million workers and generating revenues of nearly \$3.6 trillion. By 2003, women were recognized as a major force in the US economy (Mitchell, 2011). By 2014, it was found that women-owned businesses had increased to about one-third of all businesses in the United States (Robb, Coleman and Stangler, 2014).

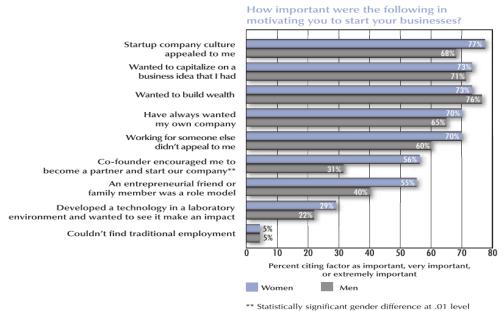
In terms of characteristics, successful female entrepreneurs have been found to be similar to male entrepreneurs in terms of: (1) level of education, (2) level of early interest in starting a business, and (3) desire to build wealth or capitalize on a business idea (Cohoon, Wadhwa and Mitchell, 2010). The main differences between the genders includes women being more averse to being entrepreneurs without prior business experience, rating their "human capital" (professional and business networks) more highly than men, and being more challenged to protect their intellectual capital. In contrast, men tend to focus on fiscal insecurities and lack of available mentors. Some of the data available is shown in the below figure.

1

_

¹ This report was written by Stephen Ham, Researcher & Editor, and Teri Ham, Researcher, the United States.

Figure 1. Gender Differences in Motivation to Start a Business



Source: Adapted from (Cohoon, Wadhwa and Mitchell, 2010)

In a 2014 survey of female entrepreneurs throughout the country, it was found that they were very well-educated, with more than 56% having graduate degrees and approximately 40% having bachelor degrees (Robb, Coleman and Stangler, 2014). Business was the most popular field of study at 27%, while Computer Science, Engineering, and IT came in at 18%. In terms of age it was found that nearly 20% of the female entrepreneurs were under 25 when they started their first company, ~25% were between the ages of 25 and 29, ~33% were in their 30s, and the remaining ~21% were aged 40 or older. The distribution of this data is shown below (Robb, Coleman and Stangler, 2014).

Figure 2. Distribution of Founder Characteristics

Distribution of Firms by Founder Characteristics						
Education Level		Age When You Founded Your First Company				
Associate Degree or Less	5.23	<20	4.6			
Bachelorís Degree	38.95	20-24	15.1			
Master's Degree	47.68	25-29	25.2			
Doctoral Degree	8.14	30-39	33.4			
		40-49	16.8			
In What Field was Your Highest Degree?		50+	4.6			
Business	27.46					
Liberal Arts	19.94	Source: Survey of founding CEOs, Presidents, CTOs, or lead				
Computer Science/IT/Engineering	18.21	technologists of tech startups founded between 2002 and 2012				
Social Sciences	9.83					
Design	4.91					
Natural Sciences	4.62					
Law	3.47					
Education	2.89					
Behavioral Sciences	2.6					
Other	2.31					
Medicine	1.73					
Mathematics	0.87					

Source: Adapted from (Robb, Coleman and Stangler, 2014)

In the same survey, it was found that these female entrepreneurs had varying factors contributing to their success in starting and building companies. Eleven of these factors are tabulated in the figure below, showing that the highest factor contributing to success was prior industry experience.

Figure 3. Success Factors

our niversity	work	from previous successes	*	Company's management team	7.50		Location	Professional business networks
20.7%	45.7%	37.4%	44.1%	30.1%	21.2%	8.7%	12.8%	39.9%
21.1%	23.3%	29.1%	25.7%	24.1%	20.5%	13.2%	18.8%	24.3%
26.3%	19.2%	21.7%	17.5%	19.6%	22.4%	19.9%	23.3%	18.5%
16.1%	5.4%	5.8%	5.7%	6.6%	14.1%	15.8%	15.7%	6.7%
14.1%	4.2%	1.6%	1.6%	6.0%	9.3%	12.9%	19.5%	6.7%
1.6%	2.2%	4.5%	5.4%	13.6%	12.5%	29.6%	9.9%	3.8%
100%	100%	100%	100%	100%	100%	100%	100%	100%
68.1%	88 2%	88 2%	87.3%	73.7%	64.1%	41.8%	55.0%	82.7%
r	20.7% 21.1% 26.3% 16.1% 14.1%	20.7% 45.7% 21.1% 23.3% 26.3% 19.2% 16.1% 5.4% 14.1% 4.2% 1.6% 2.2% 100%	niversity work previous successes 20.7% 45.7% 37.4% 21.1% 23.3% 29.1% 26.3% 19.2% 21.7% 16.1% 5.4% 5.8% 14.1% 4.2% 1.6% 1.6% 2.2% 4.5% 100% 100% 100%	niversity work previous successes failures 20.7% 45.7% 37.4% 44.1% 21.1% 23.3% 29.1% 25.7% 26.3% 19.2% 21.7% 17.5% 16.1% 5.4% 5.8% 5.7% 14.1% 4.2% 1.6% 1.6% 1.6% 2.2% 4.5% 5.4% 100% 100% 100% 100%	niversity work previous previous management	niversity work previous previous management capital	niversity work previous previous management team capital investors	niversity work previous previous team capital company capital investors Location

Source: Adapted from (Robb, Coleman and Stangler, 2014)

These success factors will be further explored in section 2.3 below, as this point may be of particular interest to policymakers.

Women Entrepreneurs and ICT

This section will explore the topic of ICT-related entrepreneurial activity for women in the US and the current statistics available, along with the challenges that they face.

In terms of baseline statistics, below are some key and applicable global rankings for women and entrepreneurship include:

- GEDI Ranking for United States in 2018: 1 (GEI: 83.6)
- GEDI FEI Ranking for United States in 2015: 1 (score: 82.9)
- GEM Ranking for United States of *Total Early-state Entrepreneurial Activity* (TEA) in 2017 (defined as "Percentage of 18-64 Population who are either a Nascent Entrepreneur or Owner-Manager of a New Business"): 13.64
- GEM Ranking for United States of *Female/Male TEA* in 2017 (defined as "Percentage of Female 18-64 Population who are either a Nascent Entrepreneur or Owner-Manager of a New Business, divided by the Equivalent Percentage for their Male Counterparts"): 0.64

Despite the increasing number of women entrepreneurs in the United States, comparatively very few have founded or co-founded companies in the ICT sector. Some of the few examples in this sector include Sandra Lerner (co-founder of Cisco in 1984), Meg Whitman (CEO of eBay in 1998),

and Caterina Fake (co-founder of Flickr) (Mitchell, 2011). For the most part, the computing and technology field has remained dominated by men in both corporations and academia, with women earning about 17% of the degrees in computer science and 12% in electrical engineering. In recent years, this has caused greater recognition and awareness that more women should be going into STEM (Science, Technology, Engineering, and Math) fields, in order to encourage more highgrowth startups. However, as a result of more women pursuing higher education, the following consequence has occurred: "Women have risen to the top in technology-oriented corporate and university hierarchies, much more than in entrepreneurship" (Mitchell, 2011, p. 10).

One of the logical conclusions of increasing numbers of women in corporate or academic environments is that the knowledge or experience of "what it takes" to launch tech startups is different from the knowledge or experience to advance in corporations or academic environments (Mitchell, 2011). Additionally, women in academic science tend to have fewer contacts in private industry than men, which is vital for aspiring entrepreneurs in getting advice and partners with the know-how to help build a company. On this point, it was found in 2011 that 6.5 percent of such women were part of science advisory boards of high-tech companies, compared to more than 93 percent for men (Mitchell, 2011), putting women at a severe disadvantage. It was further found in 2014 that there were three main challenges for women-owned tech startups, specifically: (1) the time and effort involved in starting a business, (2) lack of financial capital, and (3) lack of available mentors or advisors (Robb, Coleman and Stangler, 2014). Thus, the survey recommended greater access to mentors as an important strategy, as well as greater access to outside funding, as studies have indicated that women entrepreneurs tend to raise less capital to finance their firms compared to men (Robb, Coleman and Stangler, 2014).

These findings, as well as those from the previous sections, will be used to set the context for the case studies, and will be additionally leveraged in the forthcoming sections on success factors and obstacles.