Gender differences in entrepreneurship and intrapreneurship: An empirical analysis

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Abstract

This study examines the gender gap in start-up activities to determine whether it is family status or employment status that is responsible for the observed gender gap. We consider *independent entrepreneurship* and *intrapreneurship* as two different start-up modes: while intrapreneurship is conducted within an established organization, independent entrepreneurship is solely an independent activity. This study focuses on this fundamental distinction to identify the parameters of our empirical model. Using nationally representative U.S. data, we find that the effects of being a part-time worker on the likelihood of becoming an independent entrepreneur differ across genders. The obtained results suggest similar findings for intrapreneurship, but in opposite directions. Furthermore, our decomposition results suggest that for both entrepreneurship and intrapreneurship, the gender differences in the employment-related variables are more significant than those in the family-related variables in affecting the observed gender gap negatively (for entrepreneurship) or positively (for intrapreneurship).

Keywords: Gender Gap; Entrepreneurship; Intrapreneurship.

JEL Classifications: J15; J16; L26; M13.

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1 Introduction

Entrepreneurship is often promoted as an opportunity for women to improve their working lives, which might not be easily achieved in the labor market. For instance, the Small Business Administration (SBA) in the U.S. has an Office of Women's Business Ownership to promote women entrepreneurs.[1] There are several reasons for this. First, women may encounter the proverbial glass ceiling in the workplace (e.g. Cotter et al. 2001; Elliott and Smith 2004). In addition, it is also known that women experience wage gaps relative to men (e.g. Blau and Kahn 2006; Fotin 2008). At the same time, *intrapreneurship,* which is essentially "entrepreneurship within an existing organization" (Antoncic 2007, p.310), also provides women with opportunities to engage in a start-up activity.[2] It is increasingly recognized as being equally important as traditional entrepreneurship since it is crucial to the established firm's growth and profitability.[3]

However, in the data we use for this study (see Section 3 below for details), women are underrepresented in both modes of start-up activity. They represent 36% of nascent entrepreneurs and 30% of nascent intrapreneurs—far less than 50%—and these gender differences are statistically significant when compared to the group of uninvolved employees (see Table 2 below). What are the factors responsible for this gender gap in start-up activities?

[1] See https://www.sba.gov/offices/headquarters/wbo (accessed July 2016).

[2] Parker (2009, p.31) also states that "[d]ependent spinoffs are ventures formed in collaboration with an incumbent firm (sometimes termed 'intrapreneurship'), whereas independent spin-offs are pursued entirely separately from an incumbent ('entrepreneurship')." Intrapreneurship is sometimes called "corporate entrepreneurship." In this study, we use "intrapreneurship" and "intrapreneurs" throughout because we do not view intrapreneurship as specific to corporations.

[3] See, e.g., Miller (1983), Pinchot (1985), Rule and Irwin (1988), Hisrich (1990), Covin and Slevin (1991), Lumpkin and Dess (1996), Morris and Sexton (1996), Antoncic and Hisrich (2001), Antoncic and Hisrich (2003), Antoncic (2007), Hellmann (2007), and Baruah and Ward (2015).

While gender differences in independent entrepreneurship have been studies extensively (see the next section), there are far fewer insights when the concept of entrepreneurship is broadened to include intrapreneurship as well. In this paper, we examine how gender leads to differences in the determinants of intrapreneurship as well as those of independent entrepreneurship. Throughout this paper, "entrepreneurship" and "intrapreneurship" are considered as two mutually exclusive alternatives, and we use "entrepreneurship" and "independent entrepreneurship" interchangeably.

Our main findings are summarized as follows. First, we find that women are *less* likely to choose entrepreneurship presumably because of their aversion to risk, the existence of credit constraints or discrimination. Furthermore, marriage, children, and family size have *additional positive* effects on women's entrepreneurship. However, part-time work has additional *negative* effects. We also find that women are *less* likely to become intrapreneurs. The presence of children has additional *negative* effects on intrapreneurship for women, suggesting that intrapreneurship may deprive women of time flexibility. We also find that part-time work is not so disadvantageous for women to become an intrapreneur. Next, we find that the counterfactual rate of independent entrepreneurship by women, who acquire the same (in the distributional sense) observed characteristics as men, is lower than the actual rate of men's independent entrepreneurship. Similarly, the counterfactual rate of intrapreneurship by women, who have the same characteristics as men, is also lower than the actual rate of men's intrapreneurship. These two results suggest that women may be in a disadvantageous position when becoming an independent entrepreneur or an intrapreneur. Lastly, our decomposition results suggest that for both entrepreneurship and intrapreneurship, the gender differences in the employment-related variables

are more significant than those in the family-related variables in affecting the observed gender gap negatively (for entrepreneurship) or positively (for intrapreneurship).

This paper uses Parker's (2011) definition of (nascent) intrapreneurs: intrapreneurs are those considering starting a business *for their employer*. In our conceptual framework presented below, an individual first chooses whether to work independently. If he or she does, he or she is called an *independent entrepreneur*. Independent entrepreneurship here is a broad concept: it includes both self-employment and business ownership. If the individual does not choose to be an independent entrepreneur, he or she may become an *intrapreneur*.[4] To formalize this conceptual framework, we employ an empirical model, in which the structure of these two selections is considered, and estimate it by using an individual-level survey that is nationally representative of the United States (Panel Study of Entrepreneurial Dynamics, II, or PSED II). Our empirical model of "double selection" is essentially a bivariate probit with the structure of sample selection as explained above. It is superior to a nested or multinomial logit model because the unobserved variable in the selection of entrepreneurship and intrapreneurship is found to be negatively correlated and statistically significant.[5] We can deal with

[4]In this study, we do not describe the details of this organizational decision process. In the conceptual framework proposed in Subsection 4.1 below, we assume that an individual chooses one of the three alternatives that give him/her the best utility. If an individual who wants to be an intrapreneur cannot become one because of limited capacities, he/she does not always choose the best alternative. We do not model such frictions mainly because of data limitations. In some cases, an employee may be "ordered" to be an intrapreneur within a company against his/her will. However, De Clercq et al. (2011) argue that being selected as an intrapreneur is usually financially rewarding. Thus, we would not lose much validity even if we assume that an individual chooses the alternative that gives him/her the highest level of utility.

[5]See Bethlehem et al. (2011) for an argument of why the bivariate probit model with sample selection ("double selection") is better than other models such as, the multinomial logit, nested logit, and multilevel models.

such an asymmetrical relationship in the triangularity of entrepreneurship, intrapreneurship, and other (i.e., not being involved in a start-up); this cannot be accommodated in a nested or multinomial logit model.

In this study, we stress the fundamental difference between entrepreneurship as an *outside*-organization activity and intrapreneurship as a *within*-organization activity. In conceptual frameworks of existing studies, such as those by Parker (2011), Tietz and Parker (2012), and Martiarena (2013), an individual first chooses whether to engage in a start-up activity and then *conditional on* the choice of start-up activity, he or she becomes either an entrepreneur or an intrapreneur (Parker 2011; Tietz and Parker 2012), or is indifferent to the two alternatives (Martiarrena 2013). Thus, in these frameworks, individuals do not fundamentally distinguish between entrepreneurship and intrapreneurship: in the former case, a distinction is made based on whether an individual has a start-up plan in mind; in the latter, no special distinction is made among the three alternatives.

However, a decision on whether to work independently, and thus whether to be able to access capital and take risks, would be as important as whether to engage in a start-up activity. Therefore, in this paper, we view entrepreneurship and intrapreneurship as economically two different start-up modes. In particular, we note that many empirical studies find that credit matters significantly to the individual's decision to become involved in independent entrepreneurship.[6] Thus, an important economic distinction between entrepreneurship and intrapreneurship lies in the difference in access

[6]See, e.g., Evans and Leighton (1989a, b), Evans and Jovanovic (1989), Holtz-Eakin et al. (1994a, b), Hamilton (2000), Parker (2000), Kawaguchi (2003), Hurst and Lusardi (2004), Kan and Tsai (2006), Buera (2009), Mondragón-Vélez (2009), Malchow-Møller et al. (2010), Fairlie and Krashinsky (2012), and McCann and Folta (2012). Rybczynski (2009) examines an issue similar to the one central to this study and finds that a gender gap in self-employment earnings can mostly be ascribed to liquidity constraints.

to capital and risk-taking. In independent entrepreneurship, entrepreneurs need to raise capital by themselves, and are fully responsible for failures, whereas in intrapreneurship, almost all the financial burden is on established organizations.[7] As Knight (1921, p.299) claims, "the entrepreneur ... takes over all the uncertainty of the business along with control over it." Not only does this economic difference motivate our empirical model, it also plays an important role in identifying its parameters (see Subsection 4.1 below).

In contrast, a distinction is made between start-up activities (including both independent entrepreneurship and intrapreneurship) and doing something else (including unemployment) in Parker's (2011) conceptual framework. Parker (2011) argues that this decision is affected by family status. This is because start-up activities are presumably more intensive, and thus an individual would care about his or her family status when choosing whether to work for a start-up. However, once he or she decides to involve in a start-up activity, family status no longer matters to the choice of independent entrepreneurship or intrapreneurship. Parker (2011) uses this feature to identify his empirical model. Unfortunately, because of this identification strategy, one cannot use Parker's (2011) framework to study how family status is related to the two start-up modes independently. In contrast, our conceptual framework not only reflects the importance of the economic distinction between entrepreneurship and intrapreneurship, but also has a methodological advantage in empirically examining the gender gap in start-up activities because family status should presumably not be ignored to study this issue.

[7]However, this is not to say that intrapreneurs are not incentivized; if they fail, it becomes difficult for them to be promoted or rewarded financially.

However, our conceptual framework is not a panacea. To estimate our empirical model, individuals in the second stage, who are either intrapreneurs or employees, must have the same covariates. As explained in Subsection 3.1 below, PSED II consists of two parts: the initial screening process and the follow-up. The follow-up part of PSED II has detailed information, such as Parker's (2011) "employer size," on entrepreneurs and intrapreneurs. The disadvantage of employing our conceptual framework is that we are not able to use the follow-up part of PSED II to include a richer set of covariates than the initial screening process has.[8] Thus, we focus on the decisions by those who are currently employed, and thus, the non-employed is excluded from our sample, whereas in Parker's (2011) framework it is possible to include non-employed individuals in the initial stage. However, we recognize the importance of controlling for the size of the organization that the individual works for. To do so, we match the March 2005 version of the Current Population Survey (CPS) with PSED II because it has information on firm size for each individual who is currently employed. In short, Parker's (2011) conceptual framework and ours complement each other, and the latter reflects our interest in the gender gap in the two modes of start-up activity.

The rest of the paper is organized as follows. Section 2 presents our hypotheses by discussing existing studies that are most closely related to our study. After describing the data used for this study in Section 3, we present the empirical analysis in Section 4. We not only provide parameter estimates of the alternative specifications but also compute the actual and counter-

[8]However, it is possible to use the follow-up part for the purpose of identifying who *actually* started a business after statement in the initial screening process. Our main results do not change significantly even if we use the follow-up part. The details are available upon request.

factual probabilities of becoming an entrepreneur or intrapreneur, and show the decomposition results for gender differences. Section 5 concludes the paper.

2 Related literature and hypothesis building

We aim to contribute to the understanding of gender differences in start-up activities by broadening the concept of start-up to include intrapreneurship as well. As such, this paper lies at the intersection of the two strands of the literature: (i) gender differences in (independent) entrepreneurship and (ii) how (independent) entrepreneurship and intrapreneurship differ.[9,10]

To the best of our knowledge, Kacperczyk (2015) is the only study lying at this intersection to examine the gender gap in entrepreneurship in a broader context that includes corporate entrepreneurship as an entrepreneurial activity as well. Using detailed data from 1980 to 2005 of fund managers in the mutual funds industry, Kacperczyk (2015) finds that women are more likely to pursue intrapreneurship than start-up entrepreneurship because they can make use of maternity benefits, such as maternity leave, within the firm, while being rewarded financially at the same time. This balance may not be easily attained when women pursue start-up entrepreneurship. However, Kacperczyk (2015) does not support the presumption that

[9]In a different vein, Moriano et al. (2014) examine how managerial leadership styles affect intrapreneurial behavior and find that transformative leadership—in which, e.g., a mission is shared, mentoring is provided, and innovative thinking is encouraged—is more effective to intrapreneurship than transactional leadership—in which, e.g., employees are extrinsically incentivized, and job scopes are predetermined. See Honig (2001), Monsen et al. (2010), and Zhang and Bartol (2010) for other psychological studies of intrapreneurship.

[10]For other studies that compare different groups of start-up participants, see Sardy and Alon (2007) on franchise and nascent entrepreneurs, Renko (2013) on social and conventional entrepreneurs, Kim et al. (2015) on leisure-based and conventional entrepreneurs, and Parker (2014) on serial and portfolio entrepreneurs.

gender differences in risk-taking behavior cause the observed gender gap in entrepreneurial activities. In contrast, this paper, by using nationally representative data and additional information to control for firm size, suggests that women would find it more difficult to become intrapreneurs than independent entrepreneurs, implying that women, on average, may be facing more solid "ceilings" within established organizations than in the marketplace. In addition, women who work in the financial industry may be relatively homogenous in terms of attitudes toward risk, as evidenced by Johnson and Powell (1994), who find that gender differences with respect to risk attitudes are quite small in the managerial subsample, whereas in the non-managerial subsample, women show more risk aversion than men.

To consider how gender differences matter to entrepreneurship and intrapreneurship, recall first that entrepreneurship presumably entails risk or uncertainty, as explained in the Introduction.[11] This idea is seen in existing empirical studies showing that individuals with lower risk aversion are more likely to become entrepreneurs (e.g. Ekelund et al. 2005; Caliendo et al. 2009; Ahn 2010; Caliendo et al. 2015). In relation to our interest in both entrepreneurship and intrapreneurship, Douglas and Fitzsimmon (2013) and Martiarena (2013) find that intrapreneurs are more risk-averse than entrepreneurs. As for the relationship between risk aversion and gender, existing studies in experimental economics have repeatedly found strong evidence that, controlling for other demographic characteristics such as age, educational attainment, occupation, and cultural background, women are on average more risk averse than men both in the laboratory (usually, in

[11] In this paper, we do not distinguish between risk aversion and uncertainty aversion, as opposed to Knight's (1921) emphasis on this distinction. Skeptical views toward Knight's (1921) distinction can be found in, e.g., Schultz (1980), LeRoy and Singell (1987), Demsetz (1988), and Runde (1998).

the context of lottery choices) and in the field (usually, in the context of investment decisions).[12]

At the same time, however, entrepreneurship can give women greater autonomy, and this especially benefits them, depending on their family structure (e.g. Lombard 2001; Edwards and Field-Hendrey 2002). The studies by Macpherson (1988) and Carr (1996) are among the first to put forth the view that women with children favor self-employment owing to the flexibility with respect to time management that it offers. Hundley (2000) also finds that in the self-employment sector, the gender gap in earnings is more sensitive to family structure. In particular, self-employed women with children spend significantly less work time than those without children. On the other hand, Wellington (2006) finds that married women with more family workload are more likely to choose self-employment. This tendency is stronger for more educated women. Furthermore, using data from several European countries, Noseleit (2014) finds that the presence of children raises the women's probability of becoming self-employed, and establishes the causal relationship for this; self-employment per se does not raise fertility. Patrick et al. (2016), using detailed data on demographics from U.S. metropolitan areas from 1994 to 2008, also find that household workload owing to the presence of children is positively associated with the rate of self-employment for married women. In contrast, Taniguchi (2002) does not find a clear effect of children on women's self-employment. Similarly, using U.K. data, Saridakis et al. (2014) find that household variables are less significant than economic environments for both men and women in explain-

[12]Croson and Gneezy (2009) point out the following three reasons for these gender differences: (i) emotions (according to psychological studies, women react to uncertain situations more emotionally and fear adverse outcomes more than men do), (ii) overconfidence (men are more overconfident than women), and (iii) perception of risk as challenges or threats.

ing self-employment choices. This finding holds in both the short-run and long-run trends.

Thus, there would be several countervailing factors working as determinants of independent entrepreneurship by women. Indeed, Fossen (2012) finds that only a tiny portion of women's lower rate of entrepreneurial entry is explained by their higher risk aversion, suggesting various types of discrimination toward women entrepreneurs may be the reason. We therefore establish the following hypothesis on the relationship between gender and independent entrepreneurship.

Hypothesis 1a Women are *more* likely to become entrepreneurs than men are if they highly value the greater autonomy and flexibility that entrepreneurship offers. They are *less* likely to become entrepreneurs if they strongly avoid the greater risk that entrepreneurship entails or if they face more severe challenges that make it difficult for them to become entrepreneurs, such as credit constraints or discrimination.

In contrast, less complex factors would be involved in the lower rate of women's intrapreneurship. It is, more or less, a result of an internal process of organization, and we expect that women are *less* likely to become intrapreneurs. This is because, first, it may still entail greater uncertainty than wage work does. More importantly, intrapreneurship might require individuals to devote much time to it. This effect might be stronger for women with children than for men with children. In relation to this point, Becker (1985) argues that married women invest less in their human capital than married men do even when they work for the same number of hours, because women are mainly responsible for childcare and other household activities. Furthermore, women may be treated unequally in the workplace,

as discussed in the first paragraph of the Introduction. It may also be that men are in a more advantageous position for intrapreneurship. Indeed, employers and co-workers may discriminate against women employees (e.g. Becker 1957). Employers may also have prejudices against female workers that they are less capable or less reliable on average than male workers (e.g. Phelps 1972). For all these reasons, we have the following hypothesis on the relationship between gender and intrapreneurship.

Hypothesis 1b Women are *less* likely to become intrapreneurs than men are.

Based on the argument above, we also presume that entrepreneurship and intrapreneurship may mean different things for married individuals with children, establishing the following hypotheses.

Hypothesis 2a Women with children are *more* likely to choose entrepreneurship than their male counterparts.

Hypothesis 2b In contrast, women with children are *less* likely to be an intrapreneur than their male counterparts.

Finally, we also examine whether part-time work has different meanings across genders.

Hypothesis 3a Female part-time workers are *more* likely to choose entrepreneurship than their male counterparts.

Hypothesis 3b In contrast, female full-time workers are *less* likely to be an intrapreneur than their male counterparts.

To conclude this section, one can think of the two selection problems as interrelated. In the empirical model presented below, we consider this possibility by allowing correlation between unobserved factors in the choice of entrepreneurship and in the choice of intrapreneurship. These unobserved factors would conceivably be related to "entrepreneurial skills/talents" (Lucas 1978) in general.

3 Data

3.1 Sample construction

The data for this study is constructed from the Panel Study of Entrepreneurial Dynamics II (PSED II), provided by the Survey Research Center at the University of Michigan.[13] PSED II intends to be nationally representative as a longitudinal dataset that comprises individuals in the process of business formation (i.e., nascent entrepreneurs), and is an improved version of PSED I. From September 2005 to February 2006, an initial screening was conducted to identify a cohort, and in total, 31,845 individuals were selected as a nationally representative sample of the U.S. population. Their age is recorded as a categorical variable, ranging from "18 to 20" and "75 and up". Then, follow-up interviews were conducted for these nascent entrepreneurs once a year until 2010. Thus, in total, there were six waves: 2005, 2006, 2007, 2008, 2009, and 2010.

For our empirical analysis, we use data from the initial screening process in PSED II." Originally, it had 31,845 individuals, including those who are currently business owners (that is, those who answer "yes" to the ques-

[13]PSED II is freely downloadable at http://www.psed.isr.umich.edu/. For general references for PSED II, see Reynolds and Curtin (2009), Davidsson and Gordon (2012), and Gartner and Shaver (2012).

tion, "Are you, alone or with others, currently the owner of a business you help manage, including self-employment or selling any goods or services to others?" (QFF1c)). They represent 14.4% of the total or 4,573 individuals. Because our conceptual framework (presented in the next section) targets those who are currently working for an established organization, we exclude current business owners, other races than Blacks, Hispanics, and Whites, retirees, and the non-employed. That leaves us with 13,724 individuals. To help us define *nascent entrepreneurs* and *nascent intrapreneurs*, we use the following two questions:

1. "Are you, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?" (QFF1a)

2. "Are you, alone or with others, currently trying to start a new business or a new venture for your employer, an effort that is part of your normal work?" (QFF1b)

If a respondent answers "yes" to QFF1a and "no" to QFF1b, then he is deemed a nascent entrepreneur (see Table 1). Nascent intrapreneurs are those who answer "yes" to QFF1b. If a respondent answers "no" to both questions, he is neither a nascent entrepreneur nor an intrapreneur. Thus, we have three categories: (i) a *nascent entrepreneur* (631 individuals), (ii) a *nascent intrapreneur* (622 individuals), and (iii) not involved in a start-up (12,471 individuals).

[Table 1]

Furthermore, among these nascent entrepreneurs, only those who answer positively to the following two questions are deemed real *nascent en-*

trepreneurs: (i) "Over the past 12 months, have you done anything to help start a new business, such as looking for equipment or a location, organizing a start-up team, working on a business plan, beginning to save money, or any other activity that would help launch a business?" (QFF2) *and* (ii) "Will you personally own all, part, or none of this new business?" (QFF3). The number of *nascent entrepreneurs* is 380. The rest (251 individuals) are categorized as *not being involved in a start-up*.

Next, among those initially categorized as potential intrapreneurs, only those who answer positively to QFF2 above are deemed real *nascent intrapreneurs*. They do not necessarily have to own a part of the new business. The number of such individuals is 370 and the rest (252 individuals) are categorized as *not being not involved in a start-up*. Unfortunately, in the screening process to determine nascent business starters (entrepreneurs in PSEDII language), information on work experience is not collected. Thus, age is interpreted as a rough measure of work experience. As for household income, we transform categorical values into continuous values, ranging from \$10,000 to \$125,000. We then take the logarithm of these values.[14]

PSED II also misses the size of the firm for which an individual works. This is important because the meaning of intrapreneurship would vary across firm sizes. Thus, we use the method of propensity score matching to merge the data with the March 2005 version of the Current Population Survey (CPS) to add these two variables to our constructed sample.[15] We also add another important piece of information, which is whether the respondent is U.S. born. This is because, race, which would presumably be an important

[14]More specifically, these values take \$10,000, \$20,000, \$27,500, \$32,500, \$37,500, \$45,000, \$55,000, \$67,500, \$87,500 and \$125,000.

[15]This method of 'data fusion' is justifiably strengthened by the fact that PSED II uses the 2005 March CPS to compute the weight variable, "WT_SCRN" (see page 2 of http://www.psed.isr.umich.edu/psed/download_node/157).

factor in the context of entrepreneurship and intrapreneurship, would matter differently if we do or do not control for whether English is the individual's first language. As a result of this merger, the sample size for estimation is 11,113, with 322 independent entrepreneurs, 311 intrapreneurs, and 10,480 individuals who are involved in neither activity.

3.2 Summary statistics

Table 2 shows the summary statistics of all 11,113 individuals in the entire sample for each (exclusive) occupational mode. All variables are dummy variables (taking 0 or 1) except "household size" and "income" (as well as "unemployment rate", "homestead exemption", "median home price," and three tax rates; we will explain these variables when we discuss identification of our model in the next section). As explained above, age is used as a categorical variable in the original screening part of PSED II, and its categorization is arranged in the same manner as Parker (2011).

[Table 2]

Notably, when compared with the uninvolved individuals, the ratios of women are significantly smaller for both the entrepreneurship and intrapreneurship groups. As for family variables, the number of household members is the highest for the entrepreneurship and intrapreneurship groups. The ratio of child presence (under age 11) is also higher in the entrepreneurship and intrapreneurship groups. The ratio of married individuals is the highest and the family size is the lowest in the no-involvement group. The mean income is the highest among nascent intrapreneurs ($67,030), followed by non business starters ($65,810) and the nascent entrepreneurs ($65,330). This may be consistent with Hamilton's (2000) finding that suggests the

importance of nonpecuniary benefits from independent entrepreneurship. Furthermore, this seems to support our hypotheses (1a) and (1b); individuals may be required to devote much time to intrapreneurship. As a result, married women with children may not favor intrapreneurship, while male counterparts do not. Regarding work status, the ratio of full-time workers is higher for the intrapreneurship group. Interestingly, in each group, 30%–35% work for organizations of less than 25 workers, and another 35–40% work for organizations of 1,000 workers or more. Note also that 40–50% work for organizations of 100 workers or less in each group.

Next, the ratios of black individuals are higher in the entrepreneurship and intrapreneurship groups than in the no-involvement group. This is also true for Hispanic individuals. In the no-involvement group, 36% are aged 18 to 34, whereas 43% of the nascent entrepreneurs and 49% of the nascent intrapreneurs are 18 to 34 years old. On the other hand, 14% of those not engaged in start-up activities are aged 55 or older, whereas the percentages are 7% for the entrepreneurs and 7% for the intrapreneurs. These numbers imply that the groups of business starters consist of younger individuals. Regarding education, the ratio of individuals with some college education is particularly high for entrepreneurship. Both in the uninvolved and the intrapreneurship groups, college graduates (including those with postgraduate degrees) account for about 40%. This percentage is slightly lower for entrepreneurs.

To look at our estimation sample from a viewpoint of gender, Table 3 presents the means of variables for each gender.[16] The average household income of male interviewees ($68,000) is higher than that of female inter-

[16]The reason for statistical significances in the age groups would be ascribed to the fact that on average women live longer than men do.

viewees ($63,700). While the ratios of male entrepreneurship is higher than that of female (4.1% and 2.3% respectively), the ratio of male intrapreneurship (4.5%) is higher than that of female intrapreneurship (1.9%). The ratio of women working part-time (22%) is much higher than that of men (12%). It is also observed that women tend to work for a middle-sized firm. Finally, the ratio of women with a college degree or more among all women (43%) is higher than the corresponding ratio for men (37%).

[Table 3]

4 Empirical analysis

In this section, we first explain our bivariate probit model with sample selection. Then, we show the estimates of the model with different specifications. Finally, we show decomposition results to argue how much gender differences matter to the choices of entrepreneurship and intrapreneurship, with focus on one's family and employment status.

4.1 Estimates of the bivariate probit model with sample selection

We now propose and estimate a sample selection model based on the following conceptual framework. First, an individual chooses whether to work independently. If he chooses this option, he is called an *entrepreneur*.[17] If he does not become an entrepreneur, then he chooses whether to become an *intrapreneur*. The individual chooses one of the three alternatives that gives him the best utility (see Footnote 4 above).

[17] In line with our conceptual framework described here, our empirical analysis does not make a distinction between the self-employed and business owners, and treats them as entrepreneurs. In addition, the qualification "nascent" is dropped for simpler expressions.

More formally, let $d_i \in \{0,1\}$, where $d_i = 1$ indicates individual i choosing to opt out from working independently, and $d_i = 0$ indicates i becoming an *entrepreneur*, and let $l_i \in \{0,1\}$ denote whether individual i, *conditional on* $d_i = 1$, becomes an *intrapreneur* ($l_i = 1$) or not ($l_i = 0$). If individual i chooses $d_i = 0$, then his utility is written as

$$u_i = \alpha_0 + \alpha_1 female_i + \mathbf{x}_i'\boldsymbol{\alpha} + \epsilon_{1i}, \tag{1}$$

where $female_i$ is a dummy variable that indicates individual i's gender, and $\mathbf{x}_i$ and ϵ_{1i} include other control variables and all unobservable factors, respectively. Similarly, individual i's utility as an intrapreneur is written as

$$v_i = \beta_0 + \beta_1 female_i + \mathbf{z}_i'\boldsymbol{\beta} + \epsilon_{2i}, \tag{2}$$

where $\mathbf{z}_i$ indicates control variables, and ϵ_{2i} collects all unobserved factors, while he obtains (normalized) zero utility from $l_i = 0$. Thus, individual i, *conditional on* $d_i = 1$, becomes an intrapreneur (i.e., $l_i = 1$) if and only if $v_i \geq 0$. Knowing this order structure, individual i first chooses entrepreneurship (i.e., $d_i = 0$) if and only if $u_i \geq v_i$.

For identification of the parameters, it must be that $\mathbf{x}_i \neq \mathbf{z}_i$ (i.e., the exclusion restriction). In this study, we assume that $\mathbf{z}_i \subset \mathbf{x}_i$ and that $(\mathbf{x}_i - \mathbf{z}_i)$ contains variables that are considered related to individual i's *personal wealth*. In particular, "bankruptcy exemption in 2005" and "median home value in 2005" are included in $(\mathbf{x}_i - \mathbf{z}_i)$. These two variables vary across states, and are assumed to provide exogenous variations. The existing studies stress that capital constraints would prevent potential entrepreneurs from start-up activities.[18] However, capital constraints would be much less rele-

[18] See the references in Footnote 6 above, as well as, e.g., Fan and White (2003), Berkowitz and White (2004), Paik (2013), Rohlin and Ross (2016), and Cerqueiro and Penas (2016) for bankruptcy exemption and entrepreneurship, and Blanchflower and Oswald (1998), Taylor (2001), Adelino et al. (2015), and Schmalz et al. (2016) for housing and entrepreneurship.

vant when an individual does not work independently. This is the economic justification for excluding these two variables from $\mathbf{z}_i$. Additionally, we also include the 2005 annually averaged state-specific unemployment rate, as well as taxes for individual income, corporate income, and sales. See Appendix 1 for more details on these variables.[19]

We further assume that $(\epsilon_{1i}, \epsilon_{2i})$ is distributed identically and independently across individuals, and is independent of $(female_i, \mathbf{x}_i)$ and $(female_i, \mathbf{z}_i)$.[20] The distribution is bivariate normal with mean $(0, 0)$, and we allow for correlation between ϵ_{1i} and ϵ_{2i}, with the correlation coefficient denoted by ρ. The parameters of Eqs (1) and (2) are jointly estimated by the maximum likelihood method.

4.1.1 Selection of entrepreneurship (Eq. (1))

The estimation results of Eq. (1) are presented in Table 4. These are average (for discrete variables) and marginal (for continuous variables) effects (Table 15 in Appendix 2 shows the parameter estimates). We consider five specifications. In Specification 1, no interactions of gender with other variables are considered. In Specification 2, we consider interactions of gender with family-related variables (marriage, children, and size). Specification 3 has interactions of gender with employment-related variables (work status and firm size), and Specification 4 considers both types of interactions. Finally, interactions with education are considered in Specification 5. Note that, by construction, positive signs of coefficients mean negative effects on entrepreneurship, and vice versa.

[19]This additional state-level information was merged with the original PSED II at the Institute of Social Research, University of Michigan, as per our request. See http://www.psed.isr.umich.edu/psed/home for a procedure (accessed July 2016).

[20]We do not use household income as an explanatory variable in fear of its possible correlation with ϵ_{1i} or ϵ_{2i}.

[Tables 4 and 5]

First, Specification 1 shows that the effect of being a woman is positive with 1% statistical significance, meaning that women are, *ceteris paribus*, *less* likely to become entrepreneurs. This result supports the idea in Hypothesis 1a that women are eager to avoid entrepreneurial risk or face more severe credit constraints or discrimination. In other words, the benefits from autonomy and flexibility do not outweigh these costs and inefficiency losses. This part is statistically significant for all of the other four specifications. In contrast with our prior expectation, family size and the presence of children have no such statistically significant effects, although, as expected, they have *positive* effects entrepreneurship in all of the specifications.[21] Marriage, in contrast, has *negative* effects, and in Specifications 2 and 4, the effect is statistically significant. Regarding employment-related variables, the size of the firm that the individual currently works for has no statistically significant effects. In Specifications 1, 2, and 5, where no interactions of gender with firm size are considered, it is observed that being in a large firm has a *stronger positive* effect on entrepreneurship than being in a small firm. Being a part-time employee also has a *positive* effect, and except in Specification 2, the effect is statistically significant. Generally, this suggests that part-time employees are *more* likely to pursue entrepreneurship than are full-time employees.[22]

Now, turning our attention to interactions of gender with family and employment variables, we find that the presence of children has additional *positive* effects for women (Specifications 2 and 4), although the effect is

[21] We also considered information on the presence of pre-school children. However, it did not yield significant results.

[22] This issue would be futher pursued if a measure of voluntary part-time work is available. We thank Kate Rybczynski for pointing this out.

not statistically significant. Thus, Hypothesis 2a is weakly supported, and this result is in accordance with Noseleit's (2014) study, which finds that having a child raises women's probability of becoming self-employed.[23] Marriage and family size also have additional *positive* effects for women. This is consistent with the findings of Patrick et al. (2016) that married and unmarried women have heterogenous preferences for self-employment. It may be the case that married women have access to greater wealth because of their husbands' income/wealth. Regarding employment-related variables, being a part-time employee has a *negative* effect on entrepreneurship for women (Specifications 3 and 4), offsetting the positive effect of part-time work alone. Thus, Hypothesis 3a is *not* supported. This suggests that the meaning of part-time work may differ across genders: men may work part-time to prepare for entrepreneurship, whereas this may not be the case for women. It is also observed that women who work for a large firm have an additional *positive* effect on the choice of entrepreneurship, although the effect is not statistically significant.

Interestingly, Specification 5 in Table 4 shows that for women, education works *positively* for entrepreneurship (and the effects are all statistically significant), whereas the opposite is true for men. This result is consistent with, among others, Macpherson (1988), Evans and Leighton (1989a, b), Devine (1994), Bates (1995), and Carr (1996). This finding might indicate that women may be at a disadvantage in their workplace, and therefore, that education may help them try independent entrepreneurship.

Regarding other control variables, first, black individuals are *more* likely

[23] Rybczynski (2015), using Canadian data, arrives at a similar conclustion, namely, that the number of children negatively affects the continuation of women's self-employment. See also Okamuro and Ikeuchi (2012) for a study of the relationship between women's self-employment and work-life balance.

to pursue entrepreneurship, whereas individuals who were born outside the U.S. are less likely to do so. Next, middle-aged individuals are more likely to become entrepreneurs. The relationship between age and entrepreneurship is known as an inverse U-shape (e.g. Lévesque and Minniti 2006; Kautonen et al. 2014). Here, too, we find an inverse U-shaped relationship, as seen in Table 4: starting from "age 18 to 24" (the baseline is "age 55 or higher"), the highest absolute value of the coefficient is achieved at "age 35 to 44," and a lower value is observed for "age 45 to 54" in each specification. The effect of internet use works *positively* for entrepreneurship in all the specifications, with 1% statistical significance. This finding is consistent with Fairlie (2006), who argues that computer use is positively related to entrepreneurship not only for those who work in the IT industry but also for others in general. The effects of homestead exemption and median home value are *negative*, with 10% statistical significance. However, unemployment rate and tax rates have no significant effects.

Table 6 shows the estimated average/marginal effects in Eq. (1) from subsamples of married and unmarried individuals (Table 17 in Appendix 2 presents the parameter estimates). In each specification, the estimated negative effect of being a woman in entrepreneurship is *weaker* for married individuals than for unmarried individuals. Thus, marriage encourages more women to choose entrepreneurship. Interestingly, for unmarried women, working for a small or large firm has a *positive* effect on independent entrepreneurship, whereas the opposite is true for married women (see the results from Specification 3). Moreover, in all of the specifications, the effect of being an unmarried part-time employee is no longer statistical significant. Unmarried part-time employees are as likely to become an entrepreneur as full-time employees are. Now, Table 8 divides the sample

into full-time and part-time workers (Table 19 in Appendix 2 presents the parameter estimates). Except for Specification 5, the estimated negative effect of being a woman on entrepreneurship is *weaker* for full-time employees than for part-time employees. Somewhat unexpectedly, for part-time workers, the interaction of being as a woman and the presence of children has a *negative* effect on entrepreneurship, while it is positive for full-time workers. This is presumably because part-time female workers with children are not so attracted to entrepreneurship because they already have time flexibility, while full-time female workers are inclined toward entrepreneurship if they have a child.

[Tables 6, 7, 8, and 9]

4.1.2 Selection of intrapreneurship (Eq. (2))

Next, the estimates for average (for discrete variables) and marginal (for continuous variables) effects of Eq. (2) are presented in Table 5 (Table 16 in Appendix 2 shows the parameter estimates). Here, positive signs of coefficients mean positive effects on intrapreneurship, and vice versa.

In Specification 1, the negative effect of being a woman is 1% statistically significant, implying that women are, *ceteris paribus*, *less* likely to become intrapreneurs, and to remain as employees than men are. This finding supports Hypothesis 1b. It suggests that women may be not only risk averse but also in a disadvantageous position in the workplace. In contrast with the case of entrepreneurship above, however, statistical significance is not seen in Specifications 3 and 4. As expected, the interaction of children and gender (being a woman) has a *negative* effect (Specifications 2 and 4), although no statistical significance is found. Thus, Hypothesis 2b is weakly

supported. Marriage, as in the choice of entrepreneurship, also has a *negative* effect. However, the interaction of gender and marriage shows mixed results: in Specification 2, it has a negative effect, whereas Specification 4 indicates a positive sign. Neither of these is statistically significant, though. The interaction of gender and family size also produces mixed results.

Regarding employment-related variables, part-time work has a *negative* effect on intrapreneurship, and this effect is statistically significant in Specifications 1, 2 and 5, where it is not interacted with gender. Specifications 3 and 4 show that being a woman has a reverse effect, which supports Hypothesis 3b: the negative effect of part-time work on intrapreneurship is stronger for men, while for women, part-time work does not have as much of an adverse effect as it does for men. Again, this may suggest that the meaning of part-time work in organizations, and thus its effect on one's propensity to be an intrapreneur, differs across genders. The effects of firm size may also be different across genders: both in Specifications 3 and 4, among those who work for a small firm women are more likely to be an intrapreneur, whereas among those who work for a large firm men are more likely to be an intrapreneur.

Next, if we look at other control variables, black individuals are also *more* likely to be an intrapreneur. The average effects of education level have *negative* effects on intrapreneurship, although being a woman has reverse effects. However, they are relatively smaller than the effects on entrepreneurship, and none has statistical significance. This result is consistent with Parker's (2011) finding that the role of (general) human capital is more prominent in nascent entrepreneurship than in nascent intrapreneurship. Regarding age effects, young employees are *more* likely to become intrapreneurs than older employees, as opposed to the case of entrepreneur-

ship. Individuals who use the internet are also *more* likely to become intrapreneurs. This may imply that computer skills would be useful for both entrepreneurship and intrapreneurship.

Table 7 shows the estimated average/marginal effects in Eq. (2) from subsamples of married and unmarried individuals (Table 18 in Appendix 2 presents the parameter estimates). In each specification, the estimated negative effect of being a woman on intrapreneurship is *stronger* for married individuals than for unmarried individuals. Thus, in contrast to entrepreneurship, more women are discouraged from trying intrapreneurship if they are married. In addition, for unmarried women, working for a small or large firm has a *negative* effect on intrapreneurship, whereas the opposite is true for married women (compare the results from Specification 3). This is also in contrast to entrepreneurship. Interestingly, in all of the specifications, the effects of being a married or unmarried part-time employee lose statistical significance. This suggests that part-time employees are, regardless of marital status, are as likely to pursue intrapreneurship as full-time employees.

Table 9 shows the estimated effects from subsamples of full-time and part-time workers (Table 20 in Appendix 2 presents the parameter estimates). In each specification, the estimated negative effect of being a woman on intrapreneurship is *stronger* for full-time employees than for part-time employees. Again, this is opposite to the results from the estimates of Eq. (1). Note also that the signs for the interactions of gender with marriage, children, and family size have opposite signs between the full-time and part-time subsamples. For example, as in the case of entrepreneurship, for part-time workers, the interaction of being as a woman and the presence of children has a *negative* effect on intrapreneurship. That is, if a part-time worker

is a woman with children, she is not inclined toward either entrepreneurship or intrapreneurship. Such a woman may be satisfied with time flexibility so that entrepreneurship is less attractive, and she may not want to lose the flexibility by becoming an intrapreneur, either.

Finally, notice that Table 16 in Appendix 2 shows that Specification 1 yields a smaller value of Akaike's Information Criterion (AIC). Thus, Specification 1 is preferred.[24] Thus, the counterfactual probabilities computed in Table 10 in the next subsection are based on Specification 1. In this specification, the estimated correlation coefficients between the unobservables (ϵ_{1i} in Eq. (1) and ϵ_{2i} in Eq. (2)) are greater than 0.9 and statistically significant. Recall that in our bivariate probit model with sample selection, a *low* value of ϵ_{1i} favors entrepreneurship, and a high value of ϵ_{2i} favors intrapreneurship. That is, our positive estimates for ρ suggest that what Lucas (1978) calls (unobserved) "entrepreneurial skills/talents," are *negatively* related to (unobserved) "intrapreneurial skills/talents." If one ignores this correlation (i.e., estimating each of the equations independently, or treating the three alternatives equally as in a multinominal logit model), the parameter estimates would be biased, and the predicted rates of entrepreneurship and intrapreneurship under counterfactual scenarios would be imprecise. As in Parker (2011), this justifies our empirical model of double selection.

In summary, we find that women are *less* likely to choose entrepreneurship presumably because of their aversion to risk, the existence of credit con-

[24]To consider the possibility that intrapreneurship may mean different things across firm sizes, we estimate the two equations with a subsample of those who work for a firm with fewer than 100 workers, and with a subsample of the others. We also conduct the same exercise by dividing the sample into those who work for a firm with fewer than 25 workers (this is the minimum number for the firm-size categorization) and others. We find that overall, the parameter estimates (available upon request) are similar across the subsamples.

straints or discrimination. Furthermore, marriage, children, and family size have additional effects that work *positively* for women. Thus, Hypotheses 1a and 2a are supported. We find, however, that part-time work has additional *negative* effects on entrepreneurship for women, rejecting Hypothesis 3a. As for intrapreneurship, we find that women are also *less* likely to become intrapreneurs (Hypothesis 1b). In addition, the presence of children has additional *negative* effects on intrapreneurship for women, supporting Hypothesis 2b. This may suggest that intrapreneurship does not provide women with more time flexibility. Interestingly, for women, the negative effect of being a part-time worker on intrapreneurship is *weaker*, suggesting that part-time work is not so disadvantageous for women to become an intrapreneur, and that part-time work would be a greater stigma for men.

4.2 Decomposition of the gender gap

To explore further the relationships between gender and start-up activities, we compute women's actual and predicted probabilities of becoming independent entrepreneurs and intrapreneurs when they become the average man (i.e., in each simulation, each woman's covariates are drawn from the estimated distribution of the covariates for men). We also show the results from the non-linear version of the Blinder–Oaxaca decomposition (see, e.g., Blinder 1973; Oaxaca 1973; Oaxaca and Ramson 1994; Fairlie 1999, 2003, 2005; Yun 2004; Fortin et al. 2011). It decomposes the gender differences in the average rate of becoming an independent entrepreneur or intrapreneur

into the characteristics' effect and the coefficients' effect as given below:

$$\begin{aligned}\overline{\Pr}_m - \overline{\Pr}_f \quad = \quad & \underbrace{\overline{\Pr}(\hat{\beta}^*, X_m) - \overline{\Pr}(\hat{\beta}^*, X_f)}_{\text{characteristics' effect ("explained")}} \\ & + \underbrace{\overline{\Pr}(\hat{\beta_m}, X^*) - \overline{\Pr}(\hat{\beta}_f, X^*)}_{\text{coefficients' effect ("unexplained")}} ,\end{aligned}$$

where $\overline{\Pr}_m$ and $\overline{\Pr}_f$ denote the average predicted probabilities of becoming an independent entrepreneur or intrapreneur for men and women, respectively (thus, $\overline{\Pr}_m - \overline{\Pr}_f$ expresses the observed gender gap in independent entrepreneurship or intrapreneurship), $\hat{\beta}^* = \Omega\hat{\beta_m} + (I - \Omega)\hat{\beta}_f$, with Ω being a weighting matrix, $\hat{\beta_m}$ and $\hat{\beta}_f$ being the parameter estimates in the male sample, and female sample, respectively, and finally, $X^* = (I - \Omega)X_m + \Omega X_f$, with X_m and X_f representing the observed characteristics of men and women, respectively.[25]

4.2.1 Entrepreneurship

First, Panel A of Table 10 displays the actual probabilities of choosing entrepreneurship by gender in the diagonal cells and the counterfactual probabilities in the non-diagonal cells. As shown in the table, if the distribution of men's characteristics is identical to that of women's, then the predicted chance of becoming an entrepreneur is 3.8%, whereas the actual chance is 3.6%, although this difference is not statistically significant. On the other hand, if the distribution of women's characteristics is identical to that of men's, they are *less* likely to choose entrepreneurship by 0.2% points (this is also not statistically significant). These two counterfactual scenarios suggest that female characteristics *do* favor entrepreneurship.

[25] Our implementation is based on Sinning et al. (2008). Following Oaxaca and Ransom (1994), we do not include the gender dummy when we obtain the estimates. This issue has not been settled in the literature. For example, Elder et al. (2010) recommend the inclusion of the group variable, whereas Lee (2015) opposes it.

However, column "Male" shows that even if the distribution of women's characteristics $\mathbf{x}_i$ is identical to that of men's (except $female_i$), women are *less* likely to become entrepreneurs than men, and this difference (1.6%) is 1% statistically significant. Column "Female" also shows a similar result if the distribution of men's characteristics becomes identical to that of women's. These two results show that women are *less* likely to choose entrepreneurship precisely because they are women, suggesting that women may be in a disadvantageous position when becoming entrepreneurs. In this sense, policies for promoting entrepreneurship with an emphasis on women would be justified, as the U.S. SBA currently emphasizes (recall the first paragraph of the Introduction). For example, if the mismatch of nascent entrepreneurs and start-up assistance programs is serious, as found by Yusuf (2010), policies would be better improved focusing on women's entrepreneurship.

[Table 10]

Now, Panel A of Table 11 shows the results from decomposition of the gender differences in entrepreneurship. Following Oaxaca and Ramson (1994), we show the decomposition result from the weighted coefficients ($\hat{\beta}^*$ above) in column "Weighted coefficients." It is well known that the decomposition result is sensitive to whether male or female coefficients are used. Although we prefer to argue the result based on the weighted coefficients, we also show the results from the use of the two coefficients respectively (in columns "Male coefficients" and "Female coefficients"). It is observed that the gender differences in the observed characteristics *reduces* the observed gender gap by 10.8%. Among these contributions, the effects of the gender differences in the employment-related variables on the gender gap are

larger (in absolute terms) than those in the family-related variables (-3.5% vs. 1.0%). Thus, while we find that family size also matters to women's entrepreneurship as in Hundley (2000), employment status would be more important in explaining the gender gap in entrepreneurship.[26]

4.2.2 Intrapreneurship

Now, we look at intrapreneurship. Panel B of Table 10 depicts the gender differences in the actual and the counterfactual probabilities of becoming an intrapreneur. Importantly, if a woman has the same characteristics as a man, her likelihood of becoming an intrapreneur would be 1.7%, slightly higher than the actual rate of 1.6%, although this difference is not statistically significant. On the other hand, the opposite is true for men (see row "Male"). These two counterfactual scenarios suggest that, in contrast to entrepreneurship, female characteristics do *not* favor intrapreneurship. More importantly, columns "Male" and "Female" both suggest that women may also be in a disadvantageous position when becoming intrapreneurs. The male–female difference is 2.2% points if the distribution of female characteristics $\mathbf{x}_i$ is identical to that of male characteristics (except $female_i$), and this difference is 1% statistically significant. Comparison within column "Female" gives a similar result.[27]

Lastly, Panel B of Table 11 shows the results from decomposition of the

[26]For other aspects of gender differences in entrepreneurship, Leoni and Falk (2010) focus on areas of university graduates' majors, and Bönte and Piegeler (2013) consider gender differences in preferences toward competitive situations.

[27]Notice that it is possible to compute the actual and counterfactual (when all women acquire the same characteristics as men) rates of the non-involved for men and for women as in Table 12. Unfortunately, however, it is not possible to predict how the three rates for men would change because we do not model interactions among individuals.

[Table 12]

gender differences in intrapreneurship. Now, in contrast to the case of entrepreneurship, the gender differences in the employment-related variables (*positively*) contribute to the gender gap in intrapreneurship, and these effects are larger than those in the family-related variables (4.5% vs. 0.1%). Although the gender differences in employment status is more significant than those in family status in explaining the observed gender gap in both entrepreneurship and intrapreneurship, their signs vary across the two start-up modes.

5 Concluding remarks

By broadening the concept of start-up activity, this study examines how gender matters in entrepreneurship and intrapreneurship. We find that marriage, children, and family size have additional *positive* effects on women's entrepreneurship, whereas part-time work has additional *negative* effects. For women's intrapreneurship, children has additional *negative* effects, whereas part-time work is not disadvantageous for women in becoming intrapreneurs. Our counterfactual experiments suggest that the rate of entrepreneurial activities by women, who acquire the same characteristics as men (in the distributional sense), is lower than that of men's entrepreneurial activities. Similarly, the rate of intrapreneurial activities of women with the same characteristics as men will be lower than the rate of men's intrapreneurial activities. These two findings suggest that women may be disadvantaged for becoming entrepreneurs and intrapreneurs. In addition, our decomposition results suggest that both entrepreneurship and intrapreneurship, the gender differences in the employment-related variables are more significant than those in the family-related variables in affecting the observed gender gap

negatively (for entrepreneurship) or positively (for intrapreneurship).

Our empirical results would imply that if the government aims to reduce the gender gap in start-up activities, it should recognize that workplace conditions, rather than family-related policies, would be important. However, caution must be taken when deriving policy implications from our results because we do not discuss the performances of these start-up activities.[28] In particular, it is difficult to measure the performance of intrapreneurial activities: the process and performance of an intrapreneurial activity has to be recorded, and a sufficient number of such observations has to be made available to researchers. Nonetheless, it would be interesting to study how gender matters to the duration of intrapreneurship when measuring the performance of start-up activities. However, our empirical model applied in this paper is inherently static, and has obvious limitations. Important issues, including this, await future research to deepen our understanding of start-up activities in a broader sense.

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[28] For example, Fairlie and Robb (2009) find that the lower performances of women-owned businesses are explained by both less human and financial capital that are specific to starting a business. See also Robb and Watson (2012) on gender differences in the performance of new ventures, Fairlie (1999) and Ahn (2011) on racial differences in the duration of entrepreneurship, and Oe and Mitsuhashi (2013) on the effects of founders' experiences on the profitability of start-ups.

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Appendix 1. Variables of the financial environment

Since the PSED II was conducted from September 2005 to February 2006, we set 2005 as the base year. To measure state-varying bankruptcy exemptions, we use homestead exemptions in 2005, and this information is based on Table 1 of Corradin et al. (2016). To capture the local housing market, we use the median value of owner-occupied housing units in 2005, and this variable comes directly from the 2005 American Community Survey (Variable B25077; owner-occupied housing units). The state-specific unemployment rate is the annual average in 2005 (available at the Webpage of the U.S. Bureau of Labor Statistics[29]). Finally, we consider three tax rates: individual income, corporate income, and sales taxes in 2005. The information is taken from the Tax Foundation's Webpage (http://taxfoundation.org/tax-topics/state-taxes; accessed July 2016). Following Rohlin and Ross (2016),

[29]The URL is http://www.bls.gov/news.release/archives/srgune_03012006.pdf (accessd July 2016).

we use the highest marginal rate for individual income and corporate income taxes.

Table 13 presents the state-level data for the financial environment. All these variables have sufficient variations. Table 14 shows that the correlations among these variables are weak, except for the one between individual income tax and corporate income tax. There are seven states that do not set an exemption level. In Table 13, such a state is deemed "unlimited," and in our empirical analysis we impute $500,000, the maximum amount from the rest of the states, for these states' exemption level. The federal level of exemption in 2005 was $36,900, and for states that had a lower amount but allowed their residents to opt out for the federal level, the amount is set at $36,900. However, 17 states continued to have a lower amount than $36,900. In particular, there are two states (Delaware and Maryland) that did not permit any homestead exemption.[30]

[Tables 13 and 14]

Appendix 2. Parameter estimates

In the main text, we present the estimates of the average ('marginal' for continuous variables) effects for each equation under each of the six specifications. Below, we show the original parameter estimates.

[Tables 15 to 20]

[30]However, in 2006, Delaware set $50,000 for its homestead exemption.

References

Adelino, M., Schoar, A., & Severino, F. (2015). House prices, collateral, and self-employment. *Journal of Financial Economics*, 117(2), 288-306.

Ahn, T. (2010). Attitudes toward risk and self-employment of young workers. *Labour Economics*, *17*(2), 434-442.

Ahn, T. (2011). Racial differences in self-employment exits. *Small Business Economics*, *36*(2), 169-186.

Antoncic, B. (2007). Intrapreneurship: A comparative structural equation modeling study. *Industrial Management & Data Systems*, *107*(3), 309-325.

Antoncic, B., & Hisrich, R. D. (2001). Intrapreneurship: Construct refinement and cross-cultural validation. *Journal of Business Venturing*, *16*(5), 495-527.

Antoncic, B., & Hisrich, R. D. (2003). Clarifying the intrapreneurship concept. *Journal of Small Business and Enterprise Development*, *10*(1), 7-24.

Baruah, B., & Ward, A. (2015). Metamorphosis of intrapreneurship as an effective organizational strategy. *International Entrepreneurship and Management Journal*, *11*(4), 811-822.

Bates, T. (1995). Self-employment entry across industry groups. *Journal of Business Venturing*, *10*(2), 143-156.

Becker, G. S. (1957). *The economics of discrimination*, Chicago: University of Chicago Press.

Becker, G. S. (1985). Human capital, effort, and the sexual division of labor. *Journal of Labor Economics*, *3*(1), 33-58.

Berkowitz, J., & White, M. J. (2004). Bankruptcy and small firms' access to credit. *RAND Journal of Economics*, *35*(1), 69-84.

Bethlehem, J., Cobben, F., & Schouten, B. (2011). *Handbook of nonresponse in household surveys*, New York: John Wiley & Sons.

Blau, F. D., & Kahn, L. M. (2006). The U.S. gender pay gap in the 1990s: Slowing convergence. *Industrial and Labor Relations Review*, *60*(1), 45-66.

Blinder, A. S. (1973). Wage discrimination: Reduced form and structural estimates. *Journal of Human Resources*, *8*(4), 436-455.

Bönte, W., & Piegeler, M. (2013). Gender gap in latent and nascent entrepreneurship: Driven by competitiveness. *Small Business Economics*, *41*(4), 961-987.

Buera, F. J. (2009). A dynamic model of entrepreneurship with borrowing constraints: Theory and evidence. *Annals of Finance*, *5*(3-4), 443–464.

Caliendo, M., Fossen, F. M., & Kritikos, A. S. (2009). Risk attitudes of nascent entrepreneurs: New evidence from an experimentally validated survey. *Small Business Economics*, *32*(2), 153-167.

Caliendo, M., Fossen, F. M., Kritikos, A. S., & Wetter, M. (2015). The gender gap in entrepreneurship: Not just a matter of personality. *CESifo Ecoomic Studies*, *61*(1), 202-238.

Carr, D. (1996). Two paths to self-employment? Women's and men's self-employment in the United States, 1980. *Work and Occupations*, *23*(1), 26-53.

Cerqueiro, G., & Penas, M. F. (2016). How does personal bankruptcy law affect start-ups? Unpublished manuscript.

Corradin, S., Gropp, R., Huizinga, H., & Laeven, L. (2016). The effect of personal bankruptcy exemptions on investment in home equity. *Journal of Financial Intermediation*, *25*(1), 77-98.

Cotter, D. A., Hermsen, J. M., Ovadia, S., & Vanneman, R. (2001). The glass ceiling effect. *Social Forces*, *80*(2), 655-681.

Covin, J. G., & Slevin, D. P. (1991). A conceptual model of entrepreneurship as firm behevior. *Entrepreneurship Theory and Practice*, *16*(1), 7-25.

Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature, 47*(2), 448-474.

Davidsson, P., & Gordon, S. R. (2012). Panel studies of new venture creation: A methods-focused review and suggestions for future research. *Small Business Economics*, *39*(4), 853-876.

De Clercq, D., Castañer, X., & Belausteguigoitia, I. (2011). Entrepreneurial initiative selling within organizations: Towards a more comprehensive motivational framework. *Journal of Management Studies*, *48*(6), 1269-1290.

Demsetz, H. (1988). Profit as a functional return: Reconsidering Knight's views. In H. Demsetz, *Ownership, Control, and the Firm* (pp. 236-247). Oxford: Basil Blackwell.

Devine, T. J. (1994). Characteristics of self-employed women in the United States. *Monthly Labor Review*, *117*(3), 20-34.

Douglas. E. J., & Fitzsimmons, J. R. (2013). Intrapreneurial intentions versus entrepreneurial intentions: Distinct constructs with different antecedents. *Small Business Economics*, *41*(1), 115-132.

Edwards, L. N., & Field-Hendrey, E. (2002). Home-based work and women's labor force decisions. *Journal of Labor Economics*, *20*(1), 170-200.

Ekelund, J., Johansson, E., Järvelin, M.-R., & Lichtermann, D. (2005). Self-employment and risk aversion—Evidence from psychological test data. *Labour Economics*, *12*(5), 649-659.

Elder, T. E., Goddeeris, J. H., & Haider, S. J. (2010). Unexplained gaps and Oaxaca-Blinder decompositions. *Labour Economics*, *17*(1), 284-290.

Elliott, J. R., & Smith, R. A. (2004). Race, gender, and workplace power. *American Sociological Review*, *69*(3), 365-386.

Evans, D. S., & Jovanovic, B. (1989). An estimated model of entrepreneurial choice under liquidity constraints. *Journal of Political Economy*, *97*(4), 808-827.

Evans, D. S., & Leighton, L. S. (1989a). The determinants of changes in U.S. self-employment, 1968-1987. *Small Business Economics*, *1*(2), 111-119.

Evans, D. S., & Leighton, L. S. (1989b). Some empirical aspects of entrepreneurship. *American Economic Review*, *79*(3), 519–535.

Fairlie, R. W. (1999). The absence of the African-American owned business: An analysis of the dynamics of self-employment. *Journal of Labor Economics*, *17*(1), 80-108.

Fairlie, R. W. (2003). An extension of the Blinder-Oaxaca decomposition technique to logit and probit models. Economic Growth Center, Yale University Discussion Paper No. 873.

Fairlie, R. W. (2005). An extension of the Blinder–Oaxaca decomposition technique to logit and probit models. *Journal of Economic and Social Measurement*, *30*(4), 305-316.

Fairlie, R. W. (2006). The personal computer and entrepreneurship. *Managemant Science*, *52*(2), 187-203.

Fairlie, R. W., & Krashinsky, H. A. (2012). Liquidity constraints, household wealth, and entrepreneurship revisited. *Review of Income and Wealth*, *58*(2), 279-306.

Fairlie, R. W., & Robb, A. M. (2009). Gender differences in business performance: Evidence from the characteristics of business owners survey. *Small Business Economics*, *33*(4), 375-395.

Fan, W., & White, M. J. (2003). Personal bankruptcy and the level of entrepreneurial activity. *Journal of Law and Economics*, *97*(4), 808-827.

Fortin, N. M. (2008). The gender wage gap among young adults in the United States: The importance of money versus people. *Journal of Human Resources*, *43*(4), 884-918.

Fortin, N., Lemiuex, T., & Firpo, S. (2011). Decomposition methods in economics. In O. Ashenfelter & D. Card (Eds.), *Handbook of labor economics*, Volume 4A (pp. 1-102). Amsterdam: North-Holland.

Fossen. F. M. (2012). Gender differences in entrepreneurial choice and risk aversion – a decomposition based on a microeconometric model. *Applied Economics*, *44*(14), 1795-1812.

Gartner, W. B., & Shaver, K. G. (2012). Nascent entrepreneurship panel studies: Progress and challenges. *Small Business Economics*, *39*(3), 659-665.

Hamilton, B. H. (2000). Does entrepreneurship pay? An empirical analysis of the returns ot self-employment. *Journal of Political Economy*, *108*(3), 604–631.

Hellmann, T. (2007). When do employees become entrepreneurs? *Management Science*, *53*(6), 919-933

Hisrich, R. D. (1990). Entrepreneurship/Intrapreneurship. *American Psychologist*, *45*(2), 209-222.

Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994a). Entrepreneurial decisions and liquidity constraints. *RAND Journal of Economics*, *25*(2), 334–347.

Holtz-Eakin, D., Joulfaian, D., & Rosen, H. S. (1994b). Sticking it out: Entrepreneurial survival and liquidity constraints. *Journal of Political Economy*, *102*(1), 53–75.

Honig, B. (2001). Learning strategies and resources of entrepreneurs and intrapreneurs. *Entrepreneurship Theory and Practice*, *26*(1), 21-35.

Hundley, G. (2000). Male/female earnings differences in self-employment: The effects of marriage, children, and the household division of labor. *Industrial and Labor Relations Review*, *54*(1), 95-114.

Hurst, E., & Lusardi, A. (2004). Liquidity constraints, household wealth, and entrepreneurship. *Journal of Political Economy*, *112*(2), 319–347.

Johnson, J. E. V., & Powell, P. L. (1994). Decision making, risk and gender: Are managers different? *British Journal of Management*, *5*(2), 123-138.

Kacperczyk, A. (2015). Female entrepreneurship and alternative opportunities inside an established firm. Unpublished manuscript.

Kan, K., & Tsai, W.-D. (2006). Entrepreneurship and risk aversion. *Small Business Economics*, *26*(5), 465-474.

Kautonen, T., Down, S., Minniti, M. (2014). Ageing and entrepreneurial activities. *Small Business Economics*, *42*(3), 579-594.

Kawaguchi, D. (2003). Human capital accumulation of salaried and self-employed workers. *Labour Economics*, *10*(1), 55–71.

Kim, P. H., Longest, K. C., & Lippmann, S. (2015). The tortoise versus the hare: Progress and business viability differences between conventional and leisure-based founders. *Journal of Business Venturing*, *30*(2), 185-204.

Knight, F. H. (1921). *Risk, Uncertainty and Profit*. Houghton Mifflin Company.

Lee, M.-J. (2015). Reference parameters in Blinder-Oaxaca decomposition: Pooled-sample versus intercept-shift approaches. *Journal of Economic Inequality*, *13*(1), 69-82.

Leoni, T., & Falk, M. (2010). Gender and field of study as determinants of self-employment. *Small Business Economics*, *34*(2), 167-185.

LeRoy, S. F., & Singell, L. D., Jr. (1987). Knight on risk and uncertainty. *Journal of Political Economy*, *95*(2), 394-406.

Lévesque, M., & Minniti, M. (2006). The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, *21*(2), 177-194.

Lombard, K. V. (2001). Female self-employment and demand for flexible, nonstandard work schedules. *Economic Inqury*, *39*(2), 214-237.

Lucas, R. E., Jr. (1978). On the size distribution of business firms. *Bell Journal of Economics*, *9*(2), 508–523.

Lumpkin, G. T., & Dess, G. G. (1996). "Clarifying the Entrepreneurial Orientation Construct and Linking It to Performance." *The Academy of Management Review*, **21**(1), 135-172.

Macpherson, D. A. (1988). Self-employment and married women. *Economics Letters*, *28*(3), 281–284.

Malchow-Møller, N., Markusen, J. R., & Skaksen, J. R. (2010). Labor market institutions, learning and self-employment. *Small Business Economics*, *35*(1), 36–52.

Martiarena, A. (2013). What's so entrepreneurial about intrapreneurs? *Small Business Ecoomics*, *40*(1), 27-39.

McCann, B. T., & Folta, T. B. (2012). Entrepreneurial entry thresholds. *Journal of Economic Behavior & Organization*, *84*(3), 782–800.

Miller, D. (1983). The correlates of entrepreneurship in three types of firms. *Management Science*, *29*(7), 770-791.

Mondragón-Vélez, Camilo. (2009). The probability of transition to entrepreneurship revisited: wealth, education and age. *Annals of Finance*, *5*(3-4), 421-441.

Monsen, E., Patzelt, H., & Saxton, T. (2010). Beyond simple utility: Incentive design and trade-offs for corporate employee-entrepreneurs. *Entrepreneurship Theory and Practice*, *34*(1), 105-130.

Moriano, J. A., Molero, F., Topa, G., & Lévy Mangin, J.-P. (2014). The influence of transformational leadership and organizational identification on intrapreneurship. *International Entrepreneurship and Management Journal*, *10*(1), 103-119.

Morris, M. H., & Sexton, D. L. (1996). The concept of entrepreneurial intensity: Implications for company performance. *Journal of Business Research*, *36*(1), 5-13.

Noseleit, F. (2014). Female self-employment and children. *Small Business Economics*, *43*(3), 549-569.

Oaxaca, R. (1973). Male-female wage differentials in urban labor markets. *International Economic Review*, *14*(3), 693-709.

Oaxaca, R., & Ransom, M. (1994). On discrimination and the decomposition of wage differentials. *Journal of Econometrics*, *61*(1), 5-21.

Oe, A., & Mitsuhashi, H. (2013). Founders' experiences for startups' fast break-even. *Journal of Business Research*, *66*(11), 2193-2201.

Okamuro, H., & Ikeuchi, K. (2012). Work-life balance and gender differences in self-employment income during the start-up stage in Japan. Unpublished manuscript.

Paik, Y. (2013). The Bankruptcy Reform Act of 2005 and entrepreneurial activity. *Journal of Economics & Management Strategy*, *22*(2), 259-280.

Parker, S. C. (2000). Saving to overcome borrowing constraints: Implications for small business entry and exit. *Small Business Economics*, *15*(3), 223-232.

Parker, S. C. (2009). *The Economics of Entrepreneurship*. Cambridge University Press.

Parker, S. C. (2011). Intrapreneurship or entrepreneurship? *Journal of Business Venturing*, *26*(1), 19-34.

Parker, S. C. (2014). Who become serial and portfolio entrepreneurs? *Small Business Economics*, *43*(4), 887-898.

Patrick, C., Stephens, H., & Weinstein, A. (2016). Where are all the self-employed women? Push and pull factors influencing female labor market decisions. *Small Business Economics*, 46(3), 365-390.

Phelps, E. S. (1972). The statistical theory of racism and sexism. *American Economic Review*, *62*(4), 659-661.

Pinchot, G., III. (1985). *Intrapreneuring: Why you don't have to leave the corporation to become an entrepreneur*. Harper & Row.

Renko, M. (2013). Early challenges of nascent social entrepreneurs. *Entrepreneurship Theory and Practice*, *37*(5), 1045-1069.

Reynolds, P. D., & Curtin, R. T. (2009). *Business creation in the United States: Initial explorations with the PSED II data set*, Springer.

Robb, A. M., & Watson, J. (2012). Gender differences in firm performance: Evidence from new ventures in the United States. *Journal of Business Venturing*, *27*(5), 544–558.

Rohlin, S. M., & Ross, A. (2016). Does bankruptcy law affect business turnover? Evidence from new and existing business. *Economic Inquiry*, *54*(1), 361-374.

Rule, E. G., & Irwin, D. W. (1988). Fostering intrapreneurship: The new competitive edge. *Journal of Business Strategy*, *9*(3), 44-47.

Runde, J. (1998). Clarifying Frank Knight's Discussion of the Meaning of Risk and Uncertainty." *Cambridge Journal of Economics*, *22*(5), 539-546.

Rybczynski, K. (2009). Are liquidity constraints holding women back? An analysis of gender in self-employment earnings. *Journal of Economic Asymmetries*, *6*(1), 141–165.

Rybczynski, K. (2015). What drives self-employment survival for women and men? Evidence from Canada. *Journal of Labor Research*, *36*(1), 27-43.

Sardy, M., & Alon, I. (2007). Exploring the differences between franchisee entrepreneurs and nascent entrepreneurs. *International Entrepreneurship and Management Journal*, **3**(4), 403-418.

Saridakis, G., Marlow, S., & Storey, D. J. (2014). Do different factors explain male and female self-employment rates? *Journal of Business Venturing*, *29*(3), 345–362.

Schmalz, M. C., Sraer, D. A., & Thesmar, D. (2016). Housing collateral and entrepreneurship. *Journal of Finance*, Forthcoming.

Schultz, T. W. (1980). Investment in entrepreneurial ability. *Scandinavian Journal of Economics*, *82*(4), 437-448.

Sinning, M., Hahn, M., & Bauer, T. K. (2008). The Blinder-Oaxaca decomposition for nonlinear regression models. *Stata Journal*, *8*(4), 480-492.

Taniguchi, H. 2002. Determinants of women's entry into self-employment. *Social Science Quartely*, *83*(3), 875-893.

Taylor, M. P. (2001). Self-employment and windfall gains in Britain: Evidence from panel data. *Economica*, *68*(272), 539-565.

Tietz, M. A., & Parker, S. C. (2012). How do intrapreneurs and entrepreneurs differ in their motivation to start a new venture? *Frontiers of Entrepreneurship Research*, *32*(4), Article 4. http://digitalknowledge.babson.edu/fer/vol32/iss4/4

Wellington, A. J. (2006). Self-employment: the new solution for balancing family and career? *Labour Economics*, *13*(3), 357-386.

Yun, M.-S. (2004). Decomposing differences in the first moment. *Economics Letters*, *82*(2), 275-280.

Yusuf, J.-E. (2010). Meeting entrepreneurs' support needs: Are assistance programs effective? *Journal of Small Business and Enterprise Development*, *17*(2), 294-307.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *The Academy of Management Journal*, *53*(1), 107-128.

Table 1: Categorization of start-up participants

Answer to		QFF1b	
		Yes	No
QFF1a	Yes	Nascent Intrapreneurs	Nascent Entrepreneurs
	No	Nascent Intrapreneurs	Uninvolved

Table 2: Summary statistics: across modes

	Uninvolved	*Entrepreneurship*	*Intrapreneurship*
	Mean	Mean	Mean
Female	0.512	0.356***	0.296***
Family			
Married	0.602	0.561	0.531**
Children under age 11	0.344	0.435***	0.409**
Size	2.993	3.311***	3.192**
Income	65814.710	65329.133	67026.976
Employment			
Work status			
Full-time	0.829	0.828	0.858
Part-time	0.171	0.172	0.142
Firm size			
Firm size 99 or less	0.435	0.485*	0.431
Firm size 100 to 999	0.187	0.145**	0.165
Firm size 1000 or more	0.378	0.370	0.404
Race			
White	0.743	0.638***	0.637***
Black	0.122	0.206***	0.175**
Hispanic	0.135	0.156	0.188**
Foreign born	0.119	0.098	0.153
Age			
18 to 24	0.121	0.148	0.194***
25 to 34	0.241	0.282	0.295**
35 to 44	0.263	0.280	0.249
45 to 54	0.238	0.223	0.194*
55 to 64	0.107	0.057***	0.060***
65 and more	0.030	0.010***	0.007***
Education			
HS dropout	0.055	0.076	0.096**
HS graduate	0.272	0.204***	0.264
Some college	0.270	0.360***	0.253
Bachelor	0.257	0.251	0.229
Postgraduate	0.146	0.109**	0.158
Internet	0.834	0.921***	0.873**
Non-metro area	0.233	0.194*	0.213
Unemployment rate	5.084	5.013	5.089
Homestead exemption	128.615	162.073***	146.465
Median home value	201.995	203.190	205.754
Maximum personal income tax rate	5.552	5.124**	5.323
Maximum corporate income tax rate	6.673	6.372*	6.648
Sales tax rate	5.324	5.289	5.425
N	10,480	322	311

Sample weights are used to calculate the means. The unit is $1,000 for Homestead exemption and Median home value. The three tax rates are in percentage terms.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ when compared with Unnvolved.

Table 3: Summary statistics: across genders

	Male	*Female*
	Mean	Mean
Uninvolved	0.914	0.958***
Entrepreneurship	0.041	0.023***
Intrapreneurship	0.045	0.019***
Family		
Married	0.614	0.584***
Children under age 11	0.355	0.343
Size	3.057	2.961***
Income	67962.404	63714.442***
Employment		
Work status		
Full-time	0.881	0.779***
Part-time	0.119	0.221***
Firm size		
Firm size 99 or less	0.444	0.430
Firm size 100 to 999	0.173	0.197***
Firm size 1000 or more	0.383	0.373
Race		
White	0.741	0.732
Black	0.103	0.149***
Hispanic	0.156	0.119***
Foreign born	0.118	0.121
Age		
18 to 24	0.135	0.113***
25 to 34	0.231	0.256***
35 to 44	0.279	0.247***
45 to 54	0.225	0.247***
55 to 64	0.104	0.104
65 and more	0.024	0.033***
Education		
HS dropout	0.068	0.046***
HS graduate	0.287	0.253***
Some college	0.272	0.272
Bachelor	0.239	0.273***
Postgraduate	0.134	0.156***
Internet	0.821	0.855***
Non-metro area	0.237	0.226
Unemployment rate	5.083	5.081
Homestead exemption	129.334	131.164
Median home value	200.296	204.007*
Maximum personal income tax rate	5.486	5.575
Maximum corporate income tax rate	6.662	6.663
Sales tax rate	5.363	5.288***
N	5,874	5,239

Sample weights are used to calculate the means. The unit is $1,000 for Homestead exemption and Median home value. The three tax rates are in percentage terms.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$ when compared with Male.

Table 4: Entrepreneurship (Eq. (1))

	Specification 1		*Specification 2*		*Specification 3*		*Specification 4*		*Specification 5*	
Dependent variable:										
1 = Staying in										
0 = Going out (Entrepreneurship)										
Female	0.016***	(0.003)	0.024***	(0.008)	0.015*	(0.008)	0.023**	(0.011)	0.048***	(0.016)
Family										
Married	0.006	(0.004)	0.011**	(0.005)	0.005	(0.004)	0.010**	(0.005)	0.006	(0.004)
Children under age 11	−0.004	(0.004)	−0.004	(0.005)	−0.004	(0.004)	−0.004	(0.005)	−0.004	(0.004)
Size	−0.002	(0.001)	−0.002	(0.002)	−0.002	(0.001)	−0.002	(0.002)	−0.002	(0.001)
Married × Female			−0.012*	(0.007)			−0.011	(0.007)		
Children under age 11 × Female ($\times 10^{-1}$)			−0.010	(0.083)			−0.005	(0.083)		
Size × Female ($\times 10^{-1}$)			−0.001	(0.028)			−0.004	(0.028)		
Employment										
Work status: Ref = full-time										
Part-time	−0.008*	(0.005)	−0.007	(0.005)	−0.015**	(0.007)	−0.013*	(0.007)	−0.008*	(0.005)
Part-time × Female					0.012	(0.009)	0.011	(0.009)		
Firm size: Ref = Firm size 100 to 999										
Firm size 99 or less	−0.003	(0.005)	−0.003	(0.004)	−0.004	(0.006)	−0.004	(0.006)	−0.004	(0.005)
Firm size 1000 or more ($\times 10^{-1}$)	−0.009	(0.046)	−0.012	(0.046)	0.007	(0.060)	0.003	(0.060)	−0.007	(0.046)
Firm size 99 or less × Female					0.001	(0.009)	0.001	(0.009)		
Firm size 1000 or more × Female					−0.004	(0.009)	−0.004	(0.009)		
Race: Ref = white										
Black	−0.025***	(0.005)	−0.026***	(0.005)	−0.025***	(0.005)	−0.025***	(0.005)	−0.025***	(0.005)
Hispanic	−0.004	(0.006)	−0.004	(0.006)	−0.004	(0.006)	−0.004	(0.006)	−0.004	(0.006)
Foreign born	0.014**	(0.006)	0.015**	(0.006)	0.014**	(0.006)	0.014**	(0.006)	0.014**	(0.006)
Age: Ref = 55 and more										
18 to 24	−0.002	(0.007)	−0.001	(0.008)	−0.001	(0.007)	−0.000	(0.008)	−0.002	(0.007)
25 to 34	−0.013**	(0.006)	−0.013**	(0.006)	−0.014**	(0.006)	−0.013**	(0.006)	−0.013**	(0.006)
35 to 44	−0.014**	(0.006)	−0.014**	(0.006)	−0.015**	(0.006)	−0.014**	(0.006)	−0.014**	(0.006)
45 to 54	−0.012**	(0.005)	−0.011**	(0.005)	−0.012**	(0.005)	−0.011**	(0.005)	−0.012**	(0.005)
Education: Ref = HS dropout										
HS graduate	0.023***	(0.007)	0.024***	(0.007)	0.023***	(0.007)	0.023***	(0.007)	0.034***	(0.008)
Some college	0.009	(0.007)	0.009	(0.007)	0.008	(0.007)	0.008	(0.007)	0.014*	(0.008)
Bachelor	0.018**	(0.007)	0.018**	(0.007)	0.018**	(0.007)	0.018**	(0.007)	0.026***	(0.009)
Postgraduate	0.018**	(0.008)	0.018**	(0.008)	0.018**	(0.008)	0.018**	(0.008)	0.026***	(0.009)
HS graduate × Female									−0.040**	(0.017)
Some colleage × Female									−0.029*	(0.017)
Bachelor × Female									−0.034**	(0.017)
Postgraduate × Female									−0.034*	(0.018)
Internet	−0.023***	(0.005)	−0.023***	(0.005)	−0.023***	(0.005)	−0.023***	(0.005)	−0.023***	(0.005)
Non-metro area	−0.001	(0.004)	−0.001	(0.004)	−0.001	(0.004)	−0.001	(0.004)	−0.001	(0.004)
Unemployment rate ($\times 10^{-2}$)	−0.006	(0.210)	−0.002	(0.209)	−0.005	(0.210)	−0.002	(0.209)	−0.012	(0.211)
Homestead exemption ($\times 10^{-2}$)	−0.002*	(0.001)	−0.002*	(0.001)	−0.002*	(0.001)	−0.002*	(0.001)	−0.002*	(0.001)
Median home value ($\times 10^{-}2$)	−0.003*	(0.002)	−0.003*	(0.002)	−0.003*	(0.002)	−0.003*	(0.002)	−0.003*	(0.002)
Maximum personal income tax rate	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)
Maximum corporate income tax rate ($\times 10^{-1}$)	0.003	(0.007)	0.004	(0.007)	0.003	(0.007)	0.004	(0.007)	0.003	(0.007)
Sales tax rate	0.002	(0.001)	0.002	(0.001)	0.002	(0.001)	0.002	(0.001)	0.002	(0.001)
N	11,113		11,113		11,113		11,113		11,113	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Intrapreneurship (Eq. (2))

	Specification 1		*Specification 2*		*Specification 3*		*Specification 4*		*Specification 5*	
Dependent variable:										
1 = Intrapreneurship										
0 = Else										
Female	−0.023***	(0.003)	−0.021***	(0.008)	−0.034	(0.024)	−0.033	(0.028)	−0.030**	(0.014)
Family										
Married	−0.006	(0.004)	−0.006	(0.005)	−0.009	(0.008)	−0.010	(0.011)	−0.006	(0.004)
Children under age 11	0.004	(0.004)	0.005	(0.005)	0.005	(0.007)	0.007	(0.008)	0.004	(0.004)
Size ($\times 10^{-1}$)	0.005	(0.013)	0.004	(0.016)	0.012	(0.024)	0.012	(0.012)	0.006	(0.013)
Married × Female			−0.001	(0.007)			0.003	(0.012)		
Children under age 11 × Female			−0.005	(0.008)			−0.005	(0.010)		
Size × Female ($\times 10^{-2}$)			0.040	(0.273)			−0.002	(0.335)		
Employment										
Work status: Ref = full-time										
Part-time	−0.009*	(0.005)	−0.009*	(0.005)	−0.012	(0.014)	−0.013	(0.012)	−0.009*	(0.005)
Part-time × Female					0.009	(0.015)	0.009	(0.013)		
Firm size: Ref = Firm size 100 to 999										
Firm size 99 or less	0.003	(0.004)	0.003	(0.004)	0.004	(0.008)	0.004	(0.008)	0.003	(0.004)
Firm size 1000 or more ($\times 10^{-2}$)	0.017	(0.449)	0.010	(0.449)	−0.013	(0.689)	−0.001	(0.681)	0.028	(0.448)
Firm size 99 or less × Female					0.001	(0.011)	0.001	(0.011)		
Firm size 1000 or more × Female					0.001	(0.012)	0.001	(0.012)		
Race: Ref = white										
Black	0.014***	(0.005)	0.014***	(0.005)	0.025	(0.029)	0.025	(0.025)	0.014***	(0.005)
Hispanic	0.009*	(0.005)	0.009*	(0.005)	0.013	(0.011)	0.013	(0.010)	0.009*	(0.005)
Foreign born	0.005	(0.005)	0.005	(0.005)	0.002	(0.012)	0.003	(0.011)	0.005	(0.005)
Age: Ref = 55 and more										
18 to 24	0.024***	(0.007)	0.024***	(0.007)	0.030**	(0.012)	0.029***	(0.011)	0.024***	(0.007)
25 to 34	0.016***	(0.006)	0.016***	(0.006)	0.023	(0.019)	0.022	(0.016)	0.016***	(0.006)
35 to 44	0.009	(0.006)	0.009	(0.006)	0.014	(0.017)	0.014	(0.015)	0.008	(0.006)
45 to 54	0.009*	(0.005)	0.009*	(0.005)	0.014	(0.015)	0.013	(0.013)	0.009*	(0.005)
Education: Ref = HS dropout										
HS graduate	−0.008	(0.007)	−0.008	(0.007)	−0.017	(0.025)	−0.016	(0.022)	−0.009	(0.008)
Some college	−0.007	(0.007)	−0.007	(0.007)	−0.011	(0.013)	−0.010	(0.012)	−0.008	(0.008)
Bachelor	−0.008	(0.007)	−0.008	(0.007)	−0.014	(0.021)	−0.014	(0.018)	−0.011	(0.008)
Postgraduate	0.001	(0.008)	0.001	(0.007)	−0.004	(0.019)	−0.004	(0.016)	−0.002	(0.009)
HS graduate × Female									0.003	(0.016)
Some colleage × Female									0.005	(0.016)
Bachelor × Female									0.013	(0.016)
Postgraduate × Female									0.010	(0.016)
Internet	0.010**	(0.005)	0.010**	(0.005)	0.018	(0.024)	0.018	(0.021)	0.010**	(0.005)
N	11,113		11,113		11,113		11,113		11,113	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Entrepreneurship (Eq. (1)) — subsamples: married and unmarried

	Married						**Unmarried**					
	Specification 1		*Specification 3*		*Specification 5*		*Specification 1*		*Specification 3*		*Specification 5*	
Dependent variable:												
1 = Staying in												
0 = Going out (Entrepreneurship)												
Female	0.012***	(0.004)	0.008	(0.010)	0.049**	(0.025)	0.023***	(0.006)	0.025**	(0.013)	0.048**	(0.021)
Family												
Children under age 11	−0.007	(0.005)	−0.007	(0.005)	−0.006	(0.005)	−0.002	(0.008)	−0.003	(0.008)	−0.003	(0.008)
Size	−0.002	(0.002)	−0.002	(0.002)	−0.002	(0.002)	−0.002	(0.002)	−0.002	(0.002)	−0.002	(0.002)
Employment												
Work status: Ref = full-time												
Part-time	−0.009	(0.006)	−0.021**	(0.010)	−0.009	(0.006)	−0.007	(0.007)	−0.011	(0.009)	−0.008	(0.007)
Part-time × Female			0.018	(0.012)					0.010	(0.013)		
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.004	(0.006)	−0.005	(0.008)	−0.004	(0.006)	−0.002	(0.007)	−0.002	(0.009)	−0.002	(0.007)
Firm size 1000 or more	−0.004	(0.006)	−0.004	(0.008)	−0.003	(0.006)	0.002	(0.007)	0.006	(0.009)	0.003	(0.007)
Firm size 99 or less × Female ($\times 10^{-1}$)			0.032	(0.116)					−0.004	(0.143)		
Firm size 1000 or more × Female ($\times 10^{-1}$)			0.001	(0.118)					−0.094	(0.150)		
Race: Ref = white												
Black	−0.035***	(0.007)	−0.035***	(0.007)	−0.035***	(0.007)	−0.015*	(0.008)	−0.015*	(0.008)	−0.015*	(0.008)
Hispanic	−0.004	(0.008)	−0.004	(0.008)	−0.004	(0.008)	−0.004	(0.009)	−0.003	(0.009)	−0.003	(0.009)
Foreign born	0.015*	(0.008)	0.015*	(0.008)	0.015*	(0.008)	0.013	(0.009)	0.013	(0.009)	0.013	(0.009)
Age: Ref = 55 and more												
18 to 24 ($\times 10^{-1}$)	0.050	(0.124)	0.046	(0.125)	0.045	(0.124)	−0.008	(0.104)	−0.006	(0.104)	−0.002	(0.104)
25 to 34	−0.015*	(0.008)	−0.015*	(0.008)	−0.015*	(0.008)	−0.009	(0.009)	−0.009	(0.009)	−0.009	(0.009)
35 to 44	−0.014*	(0.007)	−0.014*	(0.007)	−0.014*	(0.007)	−0.014	(0.009)	−0.014	(0.009)	−0.014	(0.009)
45 to 54	−0.014**	(0.007)	−0.015**	(0.007)	−0.014**	(0.007)	−0.005	(0.009)	−0.006	(0.009)	−0.005	(0.009)
Education: Ref = HS dropout												
HS graduate	0.019*	(0.010)	0.018*	(0.010)	0.031***	(0.012)	0.028***	(0.010)	0.029***	(0.010)	0.035***	(0.012)
Some college	0.005	(0.010)	0.004	(0.010)	0.011	(0.011)	0.013	(0.010)	0.013	(0.010)	0.017	(0.012)
Bachelor	0.023**	(0.010)	0.022**	(0.010)	0.031***	(0.012)	0.007	(0.011)	0.007	(0.011)	0.012	(0.013)
Postgraduate	0.014	(0.010)	0.014	(0.010)	0.018	(0.012)	0.022*	(0.013)	0.022*	(0.013)	0.044**	(0.018)
HS graduate × Female					−0.049*	(0.026)					−0.028	(0.024)
Some colleage × Female					−0.035	(0.025)					−0.021	(0.023)
Bachelor × Female					−0.041	(0.026)					−0.022	(0.023)
Postgraduate × Female					−0.028	(0.027)					−0.055**	(0.027)
Internet	−0.021***	(0.007)	−0.021***	(0.007)	−0.021***	(0.007)	−0.022***	(0.008)	−0.022***	(0.008)	−0.022***	(0.008)
Non-metro area	−0.003	(0.005)	−0.003	(0.005)	−0.003	(0.005)	0.003	(0.006)	0.003	(0.006)	0.003	(0.006)
Unemployment rate	0.001	(0.002)	0.001	(0.002)	0.001	(0.003)	−0.001	(0.004)	−0.001	(0.004)	−0.001	(0.004)
Homestead exemption ($\times 10^{-3}$)	−0.024**	(0.012)	−0.024**	(0.012)	−0.024**	(0.012)	−0.002	(0.016)	−0.003	(0.016)	−0.001	(0.016)
Median home value ($\times 10^{-2}$)	−0.004*	(0.002)	−0.004*	(0.002)	−0.004*	(0.002)	−0.001	(0.003)	−0.001	(0.003)	−0.001	(0.003)
Maximum personal income tax rate	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)
Maximum corporate income tax rate	0.001	(0.001)	0.001	(0.001)	0.001	(0.001)	−0.001	(0.001)	−0.001	(0.001)	−0.001	(0.001)
Sales tax rate	0.002	(0.002)	0.003	(0.002)	0.003	(0.002)	0.001	(0.002)	0.001	(0.002)	0.001	(0.002)
N	6,835		6,835		6,835		4,278		4,278		4,278	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Intrapreneurship (Eq. (2)) — subsamples: married and unmarried

	Married						**Unmarried**					
	Specification 1		*Specification 3*		*Specification 5*		*Specification 1*		*Specification 3*		*Specification 5*	
Dependent variable:												
1 = Intrapreneurship												
0 = Else												
Female	−0.032***	(0.008)	−0.039***	(0.013)	−0.072**	(0.036)	−0.025***	(0.006)	−0.016	(0.014)	−0.025	(0.020)
Family												
Children under age 11	0.002	(0.007)	0.002	(0.007)	0.001	(0.007)	0.011	(0.008)	0.011	(0.008)	0.012	(0.008)
Size	0.001	(0.003)	0.001	(0.003)	0.001	(0.003)	0.001	(0.002)	0.001	(0.002)	0.002	(0.002)
Employment												
Work status: Ref = full-time												
Part-time	−0.011	(0.010)	−0.015	(0.019)	−0.011	(0.010)	−0.007	(0.008)	−0.014	(0.010)	−0.007	(0.008)
Part-time × Female			0.005	(0.021)					0.017	(0.014)		
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.002	(0.007)	−0.005	(0.008)	−0.003	(0.007)	0.015*	(0.008)	0.020*	(0.010)	0.015*	(0.008)
Firm size 1000 or more	−0.006	(0.007)	−0.010	(0.008)	−0.007	(0.007)	0.012	(0.008)	0.019*	(0.011)	0.012	(0.008)
Firm size 99 or less × Female			0.008	(0.014)					−0.013	(0.016)		
Firm size 1000 or more × Female			0.011	(0.015)					−0.017	(0.017)		
Race: Ref = white												
Black	0.024	(0.019)	0.024	(0.019)	0.022	(0.019)	0.020***	(0.008)	0.021***	(0.008)	0.020***	(0.008)
Hispanic	0.007	(0.010)	0.006	(0.010)	0.006	(0.010)	0.015*	(0.008)	0.016*	(0.008)	0.015*	(0.008)
Foreign born	0.004	(0.010)	0.004	(0.010)	0.004	(0.009)	0.002	(0.008)	0.002	(0.008)	0.002	(0.008)
Age: Ref = 55 and more												
18 to 24	0.031**	(0.014)	0.031**	(0.014)	0.030**	(0.014)	0.018*	(0.010)	0.018*	(0.010)	0.016	(0.010)
25 to 34	0.035***	(0.012)	0.035***	(0.012)	0.034***	(0.012)	0.002	(0.010)	0.002	(0.010)	0.001	(0.010)
35 to 44	0.015	(0.011)	0.015	(0.011)	0.015	(0.011)	0.012	(0.010)	0.012	(0.010)	0.012	(0.010)
45 to 54	0.020**	(0.010)	0.020*	(0.010)	0.019*	(0.010)	0.003	(0.009)	0.003	(0.009)	0.002	(0.009)
Education: Ref = HS dropout												
HS graduate	−0.021	(0.014)	−0.021	(0.014)	−0.030	(0.019)	−0.006	(0.010)	−0.006	(0.010)	−0.003	(0.012)
Some college	−0.013	(0.012)	−0.013	(0.012)	−0.017	(0.014)	−0.002	(0.011)	−0.002	(0.011)	−0.005	(0.013)
Bachelor	−0.019	(0.015)	−0.019	(0.015)	−0.033*	(0.020)	−0.008	(0.012)	−0.008	(0.012)	−0.003	(0.014)
Postgraduate	−0.005	(0.013)	−0.005	(0.013)	−0.009	(0.015)	−0.002	(0.013)	−0.001	(0.013)	−0.022	(0.018)
HS graduate × Female					0.046	(0.037)					−0.011	(0.023)
Some colleage × Female					0.027	(0.034)					0.006	(0.022)
Bachelor × Female					0.060*	(0.035)					−0.014	(0.024)
Postgraduate × Female					0.029	(0.033)					0.035	(0.026)
Internet	0.022*	(0.013)	0.023*	(0.013)	0.022*	(0.013)	0.011	(0.007)	0.012	(0.007)	0.012	(0.007)
N	6,835		6,835		6,835		4,278		4,278		4,278	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Entrepreneurship (Eq. (1)) — subsamples: full-time and part-time

	Full-time						**Part-time**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Staying in												
0 = Going out (Entrepreneurship)												
Female	0.014***	(0.004)	0.021**	(0.009)	0.046**	(0.019)	0.032***	(0.009)	0.051**	(0.020)	0.046	(0.029)
Family												
Married	0.005	(0.004)	0.010*	(0.005)	0.006	(0.004)	0.008	(0.009)	0.013	(0.013)	0.009	(0.009)
Children under age 11	−0.003	(0.004)	−0.001	(0.006)	−0.002	(0.004)	−0.007	(0.013)	−0.031*	(0.017)	−0.006	(0.012)
Size	−0.003*	(0.002)	−0.003	(0.002)	−0.003*	(0.002)	−0.000	(0.003)	0.004	(0.004)	−0.001	(0.003)
Married × Female			−0.011	(0.008)					−0.010	(0.017)		
Children under age 11 × Female			−0.007	(0.009)					0.041*	(0.023)		
Size × Female			0.001	(0.003)					−0.009	(0.007)		
Employment												
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.002	(0.005)	−0.003	(0.005)	−0.002	(0.005)	−0.011	(0.013)	−0.011	(0.013)	−0.010	(0.013)
Firm size 1000 or more	0.002	(0.005)	0.002	(0.005)	0.003	(0.005)	−0.022*	(0.013)	−0.021	(0.013)	−0.021*	(0.013)
Race: Ref = white												
Black	−0.029***	(0.005)	−0.030***	(0.005)	−0.029***	(0.005)	0.021	(0.020)	0.023	(0.020)	0.021	(0.020)
Hispanic	−0.006	(0.006)	−0.006	(0.006)	−0.006	(0.006)	0.003	(0.014)	0.004	(0.014)	0.003	(0.014)
Foreign born	0.015**	(0.006)	0.015**	(0.006)	0.015**	(0.006)	0.009	(0.015)	0.010	(0.015)	0.009	(0.014)
Age: Ref = 55 and more												
18 to 24	−0.013	(0.008)	−0.012	(0.008)	−0.013	(0.008)	0.017	(0.015)	0.015	(0.015)	0.017	(0.016)
25 to 34	−0.014**	(0.007)	−0.013*	(0.007)	−0.014**	(0.007)	−0.018	(0.015)	−0.019	(0.015)	−0.018	(0.015)
35 to 44	−0.017***	(0.006)	−0.017***	(0.006)	−0.018***	(0.006)	−0.001	(0.015)	−0.002	(0.016)	−0.002	(0.015)
45 to 54	−0.013**	(0.006)	−0.013**	(0.006)	−0.013**	(0.006)	−0.015	(0.012)	−0.013	(0.012)	−0.015	(0.012)
Education: Ref = HS dropout												
HS graduate	0.025***	(0.008)	0.025***	(0.008)	0.034***	(0.009)	0.021	(0.016)	0.021	(0.016)	0.029	(0.020)
Some college	0.010	(0.008)	0.010	(0.008)	0.016*	(0.009)	0.004	(0.015)	0.002	(0.015)	0.007	(0.018)
Bachelor	0.020**	(0.008)	0.020**	(0.008)	0.028***	(0.009)	0.012	(0.017)	0.011	(0.017)	0.008	(0.021)
Postgraduate	0.022**	(0.009)	0.022**	(0.009)	0.028***	(0.010)	−0.001	(0.018)	−0.003	(0.018)	0.011	(0.024)
HS graduate × Female					−0.041**	(0.020)					−0.023	(0.034)
Some colleage × Female					−0.029	(0.020)					−0.014	(0.031)
Bachelor × Female($\times 10^{-1}$)					−0.036*	(0.020)					0.001	(0.340)
Postgraduate × Female					−0.362	(0.198)					−0.028	(0.035)
Internet	−0.027***	(0.006)	−0.027***	(0.006)	−0.027***	(0.006)	−0.007	(0.012)	−0.006	(0.012)	−0.007	(0.011)
Non-metro area	0.001	(0.004)	0.001	(0.004)	0.001	(0.004)	−0.011	(0.009)	−0.011	(0.009)	−0.012	(0.009)
Unemployment rate($\times 10^{-1}$)	−0.005	(0.022)	−0.005	(0.022)	−0.006	(0.022)	0.031	(0.058)	0.033	(0.056)	0.027	(0.058)
Homestead exemption($\times 10^{-2}$)	−0.002	(0.001)	−0.002	(0.001)	−0.002	(0.001)	−0.001	(0.002)	−0.001	(0.002)	−0.001	(0.002)
Median home value($\times 10^{-2}$)	−0.002	(0.002)	−0.002	(0.002)	−0.002	(0.002)	−0.007	(0.004)	−0.006	(0.004)	−0.007	(0.004)
Maximum personal income tax rate($\times 10^{-1}$)	0.009	(0.009)	0.009	(0.009)	0.009	(0.009)	0.004	(0.021)	0.001	(0.021)	0.004	(0.021)
Maximum corporate income tax rate($\times 10^{-1}$)	0.003	(0.008)	0.003	(0.008)	0.003	(0.008)	0.004	(0.018)	0.006	(0.018)	0.004	(0.018)
Sales tax rate	0.002	(0.001)	0.002	(0.001)	0.002	(0.001)	0.002	(0.003)	0.002	(0.003)	0.002	(0.003)
N	9,331		9,331		9,331		1,782		1,782		1,782	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 9: Intrapreneurship (Eq. (2)) — subsamples: full-time and part-time

	Full-time						**Part-time**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Intrapreneurship												
0 = Else												
Female	−0.038***	(0.005)	−0.042***	(0.012)	−0.078*	(0.041)	−0.011	(0.011)	−0.020	(0.023)	−0.010	(0.024)
Family												
Married	−0.010*	(0.006)	−0.016**	(0.007)	−0.009	(0.007)	−0.017*	(0.009)	−0.014	(0.014)	−0.018*	(0.010)
Children under age 11	0.006	(0.006)	0.007	(0.008)	0.006	(0.007)	0.003	(0.009)	0.007	(0.016)	0.003	(0.009)
Size	0.003	(0.002)	0.004	(0.003)	0.002	(0.003)	0.001	(0.002)	−0.001	(0.004)	0.001	(0.002)
Married × Female			0.016	(0.011)					−0.007	(0.017)		
Children under age 11 × Female			0.001	(0.013)					−0.005	(0.020)		
Size × Female			−0.002	(0.004)					0.003	(0.005)		
Employment												
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	0.004	(0.007)	0.004	(0.007)	0.003	(0.007)	0.014	(0.012)	0.015	(0.013)	0.015	(0.013)
Firm size 1000 or more	−0.002	(0.007)	−0.002	(0.007)	−0.001	(0.007)	0.001	(0.012)	0.002	(0.012)	0.001	(0.012)
Race: Ref = white												
Black	0.044***	(0.008)	0.045***	(0.008)	0.035	(0.023)	0.016	(0.011)	0.016	(0.011)	0.015	(0.011)
Hispanic	0.016*	(0.009)	0.016*	(0.009)	0.014	(0.010)	0.015	(0.011)	0.015	(0.011)	0.016	(0.012)
Foreign born	−0.002	(0.008)	−0.002	(0.008)	0.005	(0.014)	−0.359***	(0.079)	−0.360***	(0.076)	−0.326***	(0.092)
Age: Ref = 55 and more												
18 to 24	0.040***	(0.011)	0.039***	(0.011)	0.038***	(0.013)	0.025	(0.016)	0.027	(0.017)	0.030*	(0.016)
25 to 34	0.027***	(0.009)	0.026***	(0.009)	0.024*	(0.012)	0.029	(0.018)	0.030	(0.020)	0.033	(0.022)
35 to 44	0.021**	(0.009)	0.021**	(0.009)	0.014	(0.016)	0.036**	(0.016)	0.037**	(0.017)	0.040**	(0.018)
45 to 54	0.018**	(0.008)	0.017**	(0.008)	0.014	(0.012)	0.028*	(0.015)	0.029*	(0.016)	0.032*	(0.018)
Education: Ref = HS dropout												
HS graduate	−0.033***	(0.011)	−0.033***	(0.011)	−0.033	(0.028)	−0.006	(0.012)	−0.006	(0.013)	−0.008	(0.018)
Some college	−0.014	(0.011)	−0.014	(0.011)	−0.017	(0.016)	−0.015	(0.013)	−0.015	(0.013)	−0.025	(0.019)
Bachelor	−0.025**	(0.011)	−0.025**	(0.011)	−0.034	(0.024)	−0.020	(0.016)	−0.021	(0.017)	0.004	(0.019)
Postgraduate	−0.019	(0.012)	−0.019	(0.012)	−0.022	(0.025)	0.000	(0.015)	0.001	(0.015)	0.008	(0.021)
HS graduate × Female					0.033	(0.044)					0.004	(0.024)
Some colleage × Female					0.031	(0.036)					0.014	(0.025)
Bachelor × Female					0.056	(0.038)					−0.318***	(0.094)
Postgraduate × Female					0.045	(0.035)					−0.011	(0.029)
Internet	0.038***	(0.008)	0.038***	(0.008)	0.031	(0.022)	0.003	(0.010)	0.004	(0.010)	0.002	(0.010)
N	9,331		9,331		9,331		1,782		1,782		1,782	

Average (for discrete variables) and marginal (for continuous variables) effects;

Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 10: Actual and counterfactual rates of start-up activities

Gender \ Char	Male	Female	Difference
Panel A: Pr(Entrepreneur)			
Male	3.56%	3.83%	0.27%
	(0.0024)	(0.0003)	
Female	1.99%	2.16%	−0.17%
	(0.0002)	(0.0020)	
Difference	−1.57%***	1.67%***	
Panel B: Pr(Intraperneur)			
Male	3.85%	3.74%	−0.11%
	(0.0025)	(0.0002)	
Female	1.68%	1.62%	−0.06%
	(0.0001)	(0.0017)	
Difference	−2.17%***	2.11%***	

Standard errors in parentheses. Diagonal cells are actual rates, and nondiagonal cells are counterfactual rates.
For example, the (male, female) cell in Panel A means that if all men's characteristics are drawn from the distribution of covariates for women, 3.83% of men would be engaged in entrepreneurial activities, a higher number than the actual rate, 3,56%.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 11: Decompositon of gender differences

	Specification 1					
	Weighted coefficients		Male coefficients		Female coefficients	
Panel A: Entrepreneurship						
Male mean (%)	3.56		3.56		3.56	
Female mean (%)	2.16		2.16		2.16	
Male − Female difference (%)	1.40		1.40		1.40	
Explained difference (%)	−0.15		−0.41		−0.09	
Unexplained difference (%)	1.55		1.81		1.49	
Contributions from gender differences in:						
Family	0.0001403	1.00%	−0.0001800	−1.29%	0.0005394	3.85%
Married	(−0.0002549)	(−1.82%)	(−0.0005433)	(−3.88%)	(0.0000244)	(0.17%)
Children under age 11	(0.0001163)	(0.83%)	(0.0001082)	(0.77%)	(0.0002083)	(1.49%)
Size	(0.0002789)	(1.99%)	(0.0002551)	(1.82%)	(0.0003067)	(2.19%)
Employment	−0.0004895	−3.49%	−0.0020922	−14.94%	−0.0000299	−0.21%
Part-time	(−0.0005644)	(−4.03%)	(−0.0021928)	(−15.66%)	(−0.0000678)	(−0.48%)
Firm size 99 or less	(0.0000713)	(0.51%)	(0.0001003)	(0.72%)	(0.0000332)	(0.24%)
Firm size 1000 or more	(0.0000036)	(0.03%)	(0.0000003)	(0.00%)	(0.0000047)	(0.03%)
Age	0.0003143	2.25%	0.0003384	2.41%	0.0000272	0.20%
Education	0.0001248	0.89%	0.0001224	0.88%	−0.0002649	−1.89%
Other variables	−0.0016054	−11.48%	−0.0022889	−16.35%	−0.0011610	−8.28%
All included variables	−0.0015155	−10.83%	−0.0041003	−29.29%	−0.0008891	−6.33%
N	11,113		11,113		11,113	
Panel B: Intrapreneurship						
Male mean (%)	3.41		3.41		3.41	
Female mean (%)	0.94		0.94		0.94	
Male − Female difference (%)	2.46		2.46		2.46	
Explained difference (%)	0.14		0.18		0.01	
Unexplained difference (%)	2.33		2.28		2.45	
Contributions from gender differences in:						
Family	−0.0000274	−0.11%	−0.0000466	−0.18%	−0.0003161	−1.28%
Married	(−0.0000991)	(−0.40%)	(−0.0002128)	(−0.86%)	(−0.0002382)	(−0.97%)
Children under age 11	(0.0000643)	(0.26%)	(0.0001222)	(0.50%)	(−0.0000402)	(−0.16%)
Size	(0.0000074)	(0.03%)	(0.0000440)	(0.18%)	(−0.0000377)	(−0.15%)
Employment	0.0011145	4.52%	0.0017755	7.21%	0.0002038	0.83%
Part-time	(0.0010971)	(4.45%)	(0.0017600)	(7.14%)	(0.0001800)	(0.73%)
Firm size 99 or less	(0.0000170)	(0.07%)	(0.0000160)	(0.07%)	(0.0000245)	(0.10%)
Firm size 1000 or more	(0.0000004)	(0.00%)	(−0.0000005)	(0.00%)	(−0.0000007)	(0.00%)
Age	0.0003798	1.55%	0.0005048	2.05%	0.0003291	1.34%
Education	0.0000038	0.02%	0.0001252	0.51%	−0.0000587	−0.24%
Other variables	−0.0000840	−0.33%	−0.0005557	−2.26%	−0.0000125	−0.05%
All included variables	0.0013867	5.65%	0.0018031	7.33%	0.0001456	0.60%
N	10,791		10,791		10,791	

The decomposition is considered for non-linear.

Table 12: Actual and counterfactual rates of the three modes

		Actual (%)	Counterfactual (%)
Entrepreneurs	Male	3.56	
	Female	2.16	1.99
Intrapreneurs	Male	3.85	
	Female	1.62	1.67
Uninvolved	Male	42.59	
	Female	46.21	46.34

Table 13: State-level data

State	Homestead Exemption ($)	Median Home Value ($)	Unemployment Rate (%)	Individual Income Tax Rate (%)	Corporate Income Tax Rate (%)	Sales Tax Rate (%)
Alabama	10,000	97,500	4	5	6.5	4
Arizona	150,000	185,400	4.7	5.04	6.97	5.6
Arkansas	Unlimited	87,400	4.9	7	6.5	6
California	75,000	477,700	5.4	9.3	8.84	6.25
Colorado	90,000	223,300	5	4.63	4.63	2.9
Conneticut	150,000	271,500	4.9	5	7.5	6
Delaware	0	203,800	4.2	5.95	8.7	0
D.C.	36,900	384,400	6.5	9	9.98	5.75
Florida	Unlimited	189,500	3.8	0	5.5	6
Georgia	20,000	147,500	5.3	6	6	4
Idaho	50,000	134,900	3.8	7.8	7.6	6
Illinois	15,000	183,900	5.7	3	7.3	6.25
Indiana	15,000	114,400	5.4	3.4	8.5	6
Iowa	Unlimited	106,600	4.6	8.98	12	5
Kansas	Unlimited	107,800	5.1	6.45	4	5.3
Kentucky	10,000	103,900	6.1	6	8.25	6
Louisiana	25,000	101,700	7.1	6	8	4
Maine	70,000	155,300	4.8	8.5	8.93	5
Maryland	0	280,200	4.1	4.75	7	5
Massachusetts	500,000	361,500	4.8	5.3	9.5	5
Michigan	36,900	149,300	6.7	3.9	1.9	6
Minnesota	200,000	198,800	4	7.85	9.8	6.5
Mississippi	150,000	82,700	7.9	5	5	7
Missouri	15,000	123,100	5.4	6	6.25	4.225
Montana	200,000	131,600	4	11	6.75	0
Nebraska	12,500	113,200	3.8	6.84	7.81	5.5
Nevada	200,000	283,400	4.1	0	0	6.5
New Hampshire	200,000	240,100	3.6	5	9.25	0
New Jersey	36,900	333,900	4.4	8.97	9	6
New Mexico	60,000	125,500	5.3	6.8	7.6	5
New York	20,000	258,900	5	7.7	7.5	4
North Carolina	10,000	127,600	5.2	8.25	6.9	4.5
North Dakota	80,000	88,600	3.4	5.54	7	5
Ohio	10,000	129,600	5.9	7.5	8.5	6
Oklahoma	Unlimited	89,100	4.4	6.65	6	4.5
Oregon	33,000	201,200	6.1	9	6.6	0
Pennsylvania	36,900	131,900	5	3.07	9.99	6
Rhode Island	200,000	281,300	5	9.9	9	7
South Carolina	36,900	113,100	6.8	7	5	5
South Dakota	Unlimited	101,700	3.9	0	0	4
Tennessee	7,500	114,000	5.6	6	6.5	7
Texas	Unlimited	106,000	5.3	0	0	6.25
Utah	40,000	167,200	4.3	7	5	4.75
Vermont	150,000	173,400	3.5	9.5	9.75	6
Virginia	10,000	212,300	3.5	5.75	6	4
Washington	40,000	227,700	5.5	0	0	6.5
West Virginia	50,000	84,400	5	6.5	9	6
Wisconsin	40,000	152,600	4.7	6.75	7.9	5
Wyoming	20,000	135,000	3.6	0	0	4
Mean	74,107[a]	175,416	4.9	5.8	6.7	4.9
Median	40,000	147,500	4.9	6	7	5.3
Std. Dev.	93,558	87,561	1.01	2.81	2.89	1.76

Source: Corradin, Gropp, Huizinga and Laeven (2016) (Homestead exemptions); 2005 Amercan Community Survey (Median home values); Bureau of Labor Statistics (Unemployment rates); Tax Foundation (Taxes)

Araska and Hawaii are not included because the PSED II does not included individulas living in these states.

[a]: States with "Unlimited" are excluded.

Table 14: Correlations between institutional variables

	Exemp	Home	Unemp	Ind In	Corp Inc	Sales
Exemp	-	−0.08	−0.20	−0.19	−0.17	0.07
Home	-	-	−0.06	0.14	0.19	0.03
Unemp	-	-	-	0.08	−0.02	0.23
Ind Inc	-	-	-	-	0.71	−0.17
Corp Inc	-	-	-	-	-	−0.04
Sales	-	-	-	-	-	-

Table 15: Parameter estimates in Eq. (1)

	Specification 1		*Specification 2*		*Specification 3*		*Specification 4*		*Specification 5*	
Dependent variable:										
1 = Staying in										
0 = Going out (Entrepreneurship)										
Female	0.257***	(0.053)	0.377***	(0.125)	0.241*	(0.125)	0.370**	(0.173)	0.753***	(0.245)
Family										
Married	0.088	(0.058)	0.167**	(0.073)	0.074	(0.060)	0.148**	(0.075)	0.092	(0.058)
Children under age 11	−0.061	(0.067)	−0.065	(0.085)	−0.060	(0.068)	−0.067	(0.087)	−0.059	(0.067)
Size	−0.029	(0.022)	−0.030	(0.027)	−0.032	(0.024)	−0.030	(0.028)	−0.031	(0.022)
Married × Female			−0.189*	(0.112)			−0.176	(0.113)		
Children under age 11 × Female			−0.014	(0.130)			−0.008	(0.131)		
Size × Female			−0.001	(0.044)			−0.006	(0.045)		
Employment										
Work status: Ref = full-time										
Part-time	−0.128*	(0.073)	−0.111	(0.073)	−0.229**	(0.103)	−0.203*	(0.105)	−0.129*	(0.072)
Part-time × Female					0.203	(0.140)	0.185	(0.142)		
Firm size: Ref = Firm size 100 to 999										
Firm size 99 or less	−0.053	(0.071)	−0.054	(0.071)	−0.065	(0.093)	−0.066	(0.092)	−0.056	(0.071)
Firm size 1000 or more	−0.015	(0.073)	−0.020	(0.073)	0.007	(0.096)	0.003	(0.094)	−0.012	(0.073)
Firm size 99 or less × Female					0.017	(0.144)	0.021	(0.143)		
Firm size 1000 or more × Female					−0.069	(0.146)	−0.068	(0.146)		
Race: Ref = white										
Black	−0.401***	(0.080)	−0.410***	(0.080)	−0.383***	(0.081)	−0.391***	(0.081)	−0.402***	(0.080)
Hispanic	−0.063	(0.092)	−0.065	(0.092)	−0.056	(0.092)	−0.059	(0.092)	−0.063	(0.092)
Foreign born	0.225**	(0.090)	0.229**	(0.090)	0.223**	(0.090)	0.226**	(0.090)	0.228**	(0.091)
Age: Ref = 55 and more										
18 to 24	−0.027	(0.116)	−0.008	(0.118)	−0.017	(0.117)	−0.001	(0.119)	−0.025	(0.117)
25 to 34	−0.212**	(0.095)	−0.198**	(0.096)	−0.215**	(0.095)	−0.202**	(0.095)	−0.211**	(0.095)
35 to 44	−0.225**	(0.090)	−0.213**	(0.090)	−0.228**	(0.090)	−0.216**	(0.090)	−0.228**	(0.090)
45 to 54	−0.182**	(0.083)	−0.172**	(0.084)	−0.187**	(0.084)	−0.178**	(0.084)	−0.182**	(0.083)
Education: Ref = HS dropout										
HS graduate	0.370***	(0.110)	0.374***	(0.110)	0.358***	(0.112)	0.362***	(0.112)	0.532***	(0.129)
Some college	0.139	(0.109)	0.141	(0.109)	0.124	(0.111)	0.126	(0.110)	0.229*	(0.125)
Bachelor	0.286**	(0.114)	0.287**	(0.115)	0.270**	(0.117)	0.273**	(0.116)	0.407***	(0.133)
Postgraduate	0.289**	(0.123)	0.287**	(0.123)	0.278**	(0.123)	0.275**	(0.123)	0.411***	(0.144)
HS graduate × Female									−0.630**	(0.268)
Some colleage × Female									−0.446*	(0.260)
Bachelor × Female									−0.525**	(0.266)
Postgraduate × Female									−0.530*	(0.280)
Internet	−0.359***	(0.085)	−0.360***	(0.086)	−0.350***	(0.086)	−0.352***	(0.086)	−0.357***	(0.086)
Non-metro area	−0.018	(0.059)	−0.015	(0.060)	−0.007	(0.070)	−0.005	(0.068)	−0.018	(0.060)
Unemployment rate	−0.002	(0.033)	−0.002	(0.033)	0.006	(0.041)	0.006	(0.038)	−0.003	(0.033)
Homestead exemption ($\times 10^{-1}$)	−0.003*	(0.002)	−0.003*	(0.002)	−0.002	(0.002)	−0.002	(0.002)	−0.003*	(0.002)
Median home value ($\times 10^{-1}$)	−0.005*	(0.003)	−0.005*	(0.003)	−0.005*	(0.003)	−0.005*	(0.003)	−0.005*	(0.003)
Maximum personal income tax rate	0.013	(0.013)	0.012	(0.013)	0.009	(0.021)	0.009	(0.019)	0.013	(0.013)
Maximum corporate income tax rate	0.004	(0.012)	0.005	(0.012)	0.009	(0.019)	0.009	(0.017)	0.004	(0.012)
Sales tax rate	0.029	(0.019)	0.029	(0.019)	0.033*	(0.018)	0.033*	(0.018)	0.030	(0.019)
Constant	2.036***	(0.248)	1.976***	(0.251)	1.986***	(0.298)	1.927***	(0.290)	1.924***	(0.253)
N	11,113		11,113		11,113		11,113		11,113	

Note: Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 16: Parameter estimates in Eq. (2)

	Specification 1		*Specification 2*		*Specification 3*		*Specification 4*		*Specification 5*	
Dependent variable:										
1 = Intrapreneurship										
0 = Else										
Female	−0.363***	(0.054)	−0.343***	(0.125)	−0.420***	(0.120)	−0.417**	(0.173)	−0.479**	(0.229)
Family										
Married	−0.095	(0.058)	−0.089	(0.073)	−0.114**	(0.056)	−0.131	(0.082)	−0.096	(0.058)
Children under age 11	0.060	(0.070)	0.084	(0.084)	0.067	(0.068)	0.089	(0.081)	0.061	(0.070)
Size	0.008	(0.021)	0.006	(0.026)	0.015	(0.023)	0.015	(0.026)	0.009	(0.021)
Married × Female			−0.022	(0.115)			0.035	(0.137)		
Children under age 11 × Female			−0.079	(0.136)			−0.066	(0.130)		
Size × Female ($\times 10^{-1}$)			0.065	(0.440)			−0.002	(0.420)		
Employment										
Work status: Ref = full-time										
Part-time	−0.148*	(0.081)	−0.143*	(0.082)	−0.153	(0.261)	−0.158	(0.220)	−0.144*	(0.081)
Part-time × Female					0.106	(0.233)	0.112	(0.209)		
Firm size: Ref = Firm size 100 to 999										
Firm size 99 or less	0.044	(0.070)	0.043	(0.070)	0.045	(0.084)	0.045	(0.084)	0.044	(0.070)
Firm size 1000 or more ($\times 10^{-1}$)	0.027	(0.722)	0.016	(0.723)	−0.016	(0.853)	−0.001	(0.852)	0.045	(0.721)
Firm size 99 or less × Female					0.017	(0.139)	0.015	(0.139)		
Firm size 1000 or more × Female					0.015	(0.151)	0.011	(0.149)		
Race: Ref = white										
Black	0.223***	(0.084)	0.224***	(0.084)	0.307**	(0.153)	0.309**	(0.143)	0.224***	(0.083)
Hispanic	0.146*	(0.087)	0.145*	(0.087)	0.158*	(0.083)	0.158*	(0.083)	0.144*	(0.087)
Foreign born	0.084	(0.079)	0.084	(0.079)	0.030	(0.172)	0.032	(0.154)	0.084	(0.079)
Age: Ref = 55 and more										
18 to 24	0.389***	(0.108)	0.391***	(0.108)	0.367**	(0.176)	0.365**	(0.166)	0.380***	(0.108)
25 to 34	0.259***	(0.095)	0.261***	(0.095)	0.283***	(0.091)	0.281***	(0.090)	0.252***	(0.094)
35 to 44	0.141	(0.091)	0.141	(0.091)	0.177	(0.114)	0.174*	(0.105)	0.136	(0.090)
45 to 54	0.145*	(0.083)	0.145*	(0.083)	0.171*	(0.093)	0.168*	(0.088)	0.142*	(0.083)
Education: Ref = HS dropout										
HS graduate	−0.132	(0.109)	−0.130	(0.109)	−0.207	(0.186)	−0.204	(0.171)	−0.138	(0.126)
Some college	−0.107	(0.110)	−0.105	(0.110)	−0.131	(0.107)	−0.129	(0.107)	−0.122	(0.127)
Bachelor	−0.123	(0.114)	−0.121	(0.114)	−0.179	(0.152)	−0.176	(0.142)	−0.182	(0.134)
Postgraduate	0.014	(0.121)	0.016	(0.121)	−0.052	(0.199)	−0.048	(0.180)	−0.029	(0.141)
HS graduate × Female									0.051	(0.253)
Some colleage × Female									0.083	(0.251)
Bachelor × Female									0.207	(0.252)
Postgraduate × Female									0.165	(0.262)
Internet	0.164**	(0.078)	0.162**	(0.077)	0.229	(0.152)	0.226*	(0.137)	0.166**	(0.078)
ρ	0.934***	(0.018)	0.849***	(0.026)	−0.655	(1.053)	−0.643	(0.926)	0.862***	(0.031)
Constant	−2.017***	(0.141)	−2.025***	(0.146)	−1.900***	(0.338)	−1.900***	(0.327)	−1.994***	(0.151)
LL	-2745.709		-2743.859		-2743.989		-2742.279		-2741.719	
AIC	5587.417		5595.718		5595.979		5604.557		5595.439	
N	11,113		11,113		11,113		11,113		11,113	

Notes: Robust standard errors are in parentheses. LL stands for Log Likelihood, and AIC for Akaike's Information Criterion.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 17: Parameter estimates in Eq. (1) — subsamples: married and unmarried

	Married						**Unmarried**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Staying in												
0 = Going out (Entrepreneurship)												
Female	0.194***	(0.073)	0.138	(0.170)	0.814**	(0.403)	0.352***	(0.083)	0.378**	(0.189)	0.726**	(0.310)
Family												
Children under age 11	−0.090	(0.090)	−0.097	(0.091)	−0.086	(0.090)	−0.035	(0.117)	−0.039	(0.116)	−0.044	(0.118)
Size	−0.030	(0.031)	−0.030	(0.031)	−0.030	(0.031)	−0.035	(0.031)	−0.035	(0.031)	−0.036	(0.031)
Employment												
Work status: Ref = ful-time												
Part-time	−0.139	(0.100)	−0.334**	(0.160)	−0.131	(0.100)	−0.104	(0.109)	−0.163	(0.137)	−0.115	(0.109)
Part-time × Female			0.292	(0.201)					0.146	(0.204)		
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.066	(0.095)	−0.089	(0.124)	−0.062	(0.095)	−0.036	(0.106)	−0.033	(0.135)	−0.036	(0.107)
Firm size 1000 or more	−0.074	(0.096)	−0.077	(0.125)	−0.063	(0.096)	0.035	(0.111)	0.095	(0.144)	0.041	(0.111)
Firm size 99 or less × Female			0.046	(0.189)					−0.007	(0.218)		
Firm size 1000 or more × Female			−0.010	(0.193)					−0.144	(0.228)		
Race: Ref = white												
Black	−0.573***	(0.107)	−0.565***	(0.108)	−0.578***	(0.108)	−0.240**	(0.118)	−0.235**	(0.118)	−0.231*	(0.119)
Hispanic	−0.062	(0.126)	−0.061	(0.125)	−0.062	(0.126)	−0.051	(0.137)	−0.048	(0.137)	−0.045	(0.137)
Foreign born	0.239*	(0.122)	0.236*	(0.122)	0.235*	(0.123)	0.195	(0.133)	0.196	(0.132)	0.201	(0.133)
Age: Ref = 55 and more												
18 to 24	0.068	(0.201)	0.063	(0.201)	0.067	(0.202)	−0.011	(0.157)	−0.008	(0.158)	−0.003	(0.158)
25 to 34	−0.242*	(0.127)	−0.251**	(0.127)	−0.252**	(0.128)	−0.138	(0.143)	−0.142	(0.143)	−0.139	(0.143)
35 to 44	−0.227*	(0.119)	−0.238**	(0.120)	−0.236**	(0.120)	−0.209	(0.138)	−0.212	(0.138)	−0.216	(0.138)
45 to 54	−0.227**	(0.108)	−0.238**	(0.109)	−0.230**	(0.108)	−0.080	(0.136)	−0.083	(0.136)	−0.079	(0.136)
Education: Ref = HS dropout												
HS graduate	0.299*	(0.161)	0.292*	(0.160)	0.500***	(0.187)	0.432***	(0.155)	0.438***	(0.156)	0.538***	(0.182)
Some college	0.072	(0.157)	0.064	(0.156)	0.179	(0.178)	0.197	(0.153)	0.198	(0.153)	0.262	(0.179)
Bachelor	0.351**	(0.165)	0.349**	(0.164)	0.495***	(0.191)	0.115	(0.162)	0.115	(0.162)	0.183	(0.192)
Postgraduate	0.228	(0.170)	0.226	(0.170)	0.293	(0.193)	0.339*	(0.193)	0.345*	(0.194)	0.679***	(0.263)
HS graduate × Female					−0.809*	(0.427)					−0.429	(0.358)
Some colleage × Female					−0.589	(0.416)					−0.312	(0.342)
Bachelor × Female					−0.679	(0.425)					−0.327	(0.347)
Postgraduate × Female					−0.470	(0.437)					−0.834**	(0.403)
Internet	−0.337***	(0.117)	−0.336***	(0.117)	−0.338***	(0.118)	−0.340***	(0.124)	−0.339***	(0.124)	−0.335***	(0.124)
Non-metro area	−0.040	(0.076)	−0.036	(0.076)	−0.041	(0.076)	0.045	(0.097)	0.041	(0.096)	0.048	(0.097)
Unemployment rate	0.013	(0.039)	0.013	(0.039)	0.010	(0.039)	−0.019	(0.054)	−0.019	(0.054)	−0.019	(0.054)
Homestead exemption ($\times 10^{-2}$)	−0.037*	(0.020)	−0.037*	(0.020)	−0.038*	(0.020)	−0.006	(0.025)	−0.006	(0.025)	−0.004	(0.025)
Median home value ($\times 10^{-1}$)	−0.006	(0.004)	−0.006	(0.004)	−0.006*	(0.004)	−0.001	(0.004)	−0.001	(0.004)	−0.002	(0.004)
Maximum personal income tax rate	0.007	(0.017)	0.006	(0.017)	0.008	(0.017)	0.015	(0.021)	0.015	(0.021)	0.017	(0.021)
Maximum corporate income tax rate	0.022	(0.015)	0.022	(0.015)	0.021	(0.015)	−0.014	(0.018)	−0.014	(0.018)	−0.014	(0.018)
Sales tax rate	0.052**	(0.024)	0.053**	(0.023)	0.053**	(0.025)	0.012	(0.029)	0.013	(0.029)	0.012	(0.029)
Constant	2.008***	(0.337)	2.042***	(0.348)	1.898***	(0.345)	2.067***	(0.381)	2.049***	(0.386)	1.973***	(0.392)
N	6,835		6,835		6,835		4,278		4,278		4,278	

Note: Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 18: Parameter estimates in Eq. (2) — subsamples: married and unmarried

	Married						**Unmarried**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Intrapreneurship												
0 = Else												
Female	−0.382***	(0.073)	−0.473***	(0.159)	−0.890**	(0.356)	−0.365***	(0.083)	−0.230	(0.211)	−0.364	(0.294)
Family												
Children under age 11	0.022	(0.085)	0.024	(0.085)	0.014	(0.087)	0.167	(0.111)	0.161	(0.110)	0.175	(0.111)
Size	0.008	(0.031)	0.008	(0.031)	0.010	(0.031)	0.021	(0.029)	0.021	(0.029)	0.022	(0.029)
Employment												
Work status: Ref = full-time												
Part-time	−0.136	(0.143)	−0.177	(0.260)	−0.134	(0.143)	−0.107	(0.110)	−0.202	(0.144)	−0.101	(0.110)
Part-time × Female			0.063	(0.264)					0.242	(0.202)		
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.029	(0.085)	−0.059	(0.105)	−0.034	(0.086)	0.222*	(0.116)	0.294*	(0.152)	0.220*	(0.116)
Firm size 1000 or more	−0.078	(0.090)	−0.121	(0.108)	−0.089	(0.090)	0.181	(0.120)	0.282*	(0.157)	0.177	(0.120)
Firm size 99 or less × Female			0.094	(0.174)					−0.184	(0.236)		
Firm size 1000 or more × Female			0.135	(0.180)					−0.250	(0.243)		
Race: Ref = white												
Black	0.286*	(0.166)	0.292*	(0.164)	0.275	(0.171)	0.299***	(0.110)	0.303***	(0.110)	0.289***	(0.109)
Hispanic	0.082	(0.115)	0.078	(0.114)	0.076	(0.118)	0.222*	(0.122)	0.227*	(0.122)	0.214*	(0.122)
Foreign born	0.046	(0.123)	0.047	(0.123)	0.055	(0.125)	0.031	(0.121)	0.036	(0.121)	0.026	(0.121)
Age: Ref = 55 and more												
18 to 24	0.370*	(0.192)	0.369*	(0.190)	0.371*	(0.190)	0.257*	(0.149)	0.261*	(0.148)	0.235	(0.149)
25 to 34	0.423***	(0.113)	0.419***	(0.112)	0.428***	(0.114)	0.032	(0.152)	0.028	(0.152)	0.016	(0.152)
35 to 44	0.183*	(0.109)	0.181*	(0.110)	0.185*	(0.111)	0.181	(0.139)	0.176	(0.139)	0.172	(0.140)
45 to 54	0.243**	(0.097)	0.243**	(0.097)	0.242**	(0.098)	0.039	(0.137)	0.041	(0.137)	0.027	(0.137)
Education: Ref = HS dropout												
HS graduate	−0.254*	(0.144)	−0.256*	(0.143)	−0.375**	(0.174)	−0.086	(0.153)	−0.085	(0.153)	−0.039	(0.183)
Some college	−0.162	(0.141)	−0.162	(0.141)	−0.215	(0.158)	−0.034	(0.155)	−0.033	(0.155)	−0.067	(0.187)
Bachelor	−0.229	(0.154)	−0.231	(0.152)	−0.415**	(0.177)	−0.122	(0.169)	−0.121	(0.169)	−0.044	(0.205)
Postgraduate	−0.064	(0.155)	−0.062	(0.154)	−0.113	(0.177)	−0.023	(0.191)	−0.013	(0.191)	−0.317	(0.268)
HS graduate × Female					0.575	(0.390)					−0.158	(0.331)
Some colleage × Female					0.334	(0.391)					0.085	(0.327)
Bachelor × Female					0.744**	(0.376)					−0.211	(0.351)
Postgraduate × Female					0.356	(0.388)					0.511	(0.388)
Internet	0.269**	(0.115)	0.271**	(0.114)	0.270**	(0.117)	0.167	(0.105)	0.172	(0.106)	0.172	(0.105)
ρ	−0.787	(0.295)	−0.797	(0.286)	−0.765	(0.323)	0.898***	(0.045)	0.897***	(0.072)	0.903***	(0.036)
Constant	−1.910***	(0.194)	−1.877***	(0.194)	−1.824***	(0.209)	−2.193***	(0.200)	−2.255***	(0.212)	−2.187***	(0.219)
LL	-1599.619		-1597.96		-1593.325		-1121.722		-1120.002		-1115.762	
AIC	3291.238		3299.919		3294.651		2335.444		2344.004		2339.524	
N	6,835		6,835		6,835		4,278		4,278		4,278	

Notes: Robust standard errors are in parentheses. LL stands for Log Likelihood, and AIC for Akaike's Information Criterion.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 19: Parameter estimates in Eq. (1) — subsamples: full-time and part-time

	Full-time						**Part-time**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Staying in												
0 = Going out (Entrepreneurship)												
Female	0.231***	(0.061)	0.352**	(0.145)	0.733**	(0.295)	0.481***	(0.129)	0.780***	(0.293)	0.694	(0.432)
Family												
Married	0.089	(0.065)	0.126	(0.078)	0.086	(0.064)	0.126	(0.140)	0.204	(0.196)	0.138	(0.139)
Children under age 11	−0.024	(0.069)	0.029	(0.090)	−0.029	(0.072)	−0.110	(0.189)	−0.483*	(0.263)	−0.100	(0.192)
Size	−0.058**	(0.025)	−0.057*	(0.033)	−0.050*	(0.027)	−0.007	(0.047)	0.065	(0.065)	−0.013	(0.045)
Married × Female			−0.129	(0.128)					−0.148	(0.261)		
Children under age 11 × Female			−0.150	(0.139)					0.634*	(0.354)		
Size × Female			0.005	(0.052)					−0.135	(0.104)		
Employment												
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	−0.040	(0.076)	−0.051	(0.074)	−0.043	(0.077)	−0.163	(0.204)	−0.173	(0.204)	−0.162	(0.211)
Firm size 1000 or more	0.036	(0.080)	0.016	(0.075)	0.039	(0.080)	−0.331	(0.206)	−0.330	(0.208)	−0.323	(0.218)
Race: Ref = white												
Black	−0.458***	(0.087)	−0.461***	(0.083)	−0.462***	(0.086)	0.314	(0.306)	0.334	(0.306)	0.307	(0.305)
Hispanic	−0.073	(0.107)	−0.083	(0.108)	−0.080	(0.104)	0.038	(0.215)	0.061	(0.209)	0.039	(0.211)
Foreign born	0.246**	(0.099)	0.250**	(0.099)	0.240**	(0.099)	0.135	(0.222)	0.158	(0.225)	0.130	(0.217)
Age: Ref = 55 and more												
18 to 24	−0.180	(0.139)	−0.169	(0.139)	−0.199	(0.137)	0.257	(0.230)	0.230	(0.230)	0.260	(0.232)
25 to 34	−0.208*	(0.110)	−0.205*	(0.108)	−0.220**	(0.108)	−0.266	(0.222)	−0.283	(0.225)	−0.267	(0.224)
35 to 44	−0.265**	(0.106)	−0.268**	(0.107)	−0.285***	(0.102)	−0.013	(0.232)	−0.020	(0.237)	−0.020	(0.236)
45 to 54	−0.177*	(0.101)	−0.181*	(0.102)	−0.203**	(0.100)	−0.225	(0.185)	−0.202	(0.189)	−0.230	(0.186)
Education: Ref = HS dropout												
HS graduate	0.391***	(0.130)	0.393***	(0.131)	0.535***	(0.150)	0.322	(0.240)	0.322	(0.238)	0.446	(0.307)
Some college	0.170	(0.126)	0.179	(0.127)	0.252*	(0.142)	0.059	(0.225)	0.038	(0.224)	0.112	(0.267)
Bachelor	0.323**	(0.132)	0.338**	(0.132)	0.447***	(0.151)	0.186	(0.257)	0.174	(0.259)	0.121	(0.319)
Postgraduate	0.372***	(0.139)	0.393***	(0.139)	0.435***	(0.160)	−0.007	(0.275)	−0.045	(0.274)	0.163	(0.355)
HS graduate × Female					−0.622*	(0.332)					−0.345	(0.502)
Some colleage × Female					−0.464	(0.309)					−0.207	(0.464)
Bachelor × Female					−0.571*	(0.316)					0.002	(0.510)
Postgraduate × Female					−0.435	(0.341)					−0.420	(0.529)
Internet	−0.422***	(0.099)	−0.444***	(0.101)	−0.425***	(0.103)	−0.103	(0.172)	−0.090	(0.176)	−0.101	(0.172)
Non-metro area	0.008	(0.050)	0.023	(0.050)	0.020	(0.062)	−0.169	(0.137)	−0.168	(0.137)	−0.172	(0.140)
Unemployment rate	−0.009	(0.027)	−0.009	(0.026)	−0.005	(0.033)	0.051	(0.102)	0.059	(0.105)	0.048	(0.117)
Homestead exemption($\times 10^{-1}$)	−0.002	(0.001)	−0.002	(0.001)	−0.002	(0.002)	−0.001	(0.003)	−0.001	(0.003)	−0.001	(0.004)
Median home value($\times 10^{-1}$)	−0.004*	(0.002)	−0.004*	(0.002)	−0.004	(0.003)	−0.010	(0.007)	−0.009	(0.007)	−0.010	(0.007)
Maximum personal income tax rate($\times 10^{-1}$)	0.000	(0.107)	−0.002	(0.081)	0.073	(0.208)	0.049	(0.328)	0.003	(0.322)	0.053	(0.328)
Maximum corporate income tax rate	0.011	(0.009)	0.013	(0.009)	0.012	(0.015)	0.006	(0.028)	0.010	(0.027)	0.006	(0.028)
Sales tax rate	0.021	(0.014)	0.022	(0.014)	0.033	(0.022)	0.027	(0.047)	0.027	(0.047)	0.026	(0.046)
Constant	2.211***	(0.263)	2.166***	(0.264)	1.996***	(0.287)	1.556***	(0.592)	1.369**	(0.645)	1.520**	(0.656)
N	9,331		9,331		9,331		1,782		1,782		1,782	

Note: Robust standard errors are in parentheses.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 20: Parameter estimates in Eq. (2) — subsamples: full-time and part-time

	Full-time						**Part-time**					
	Specification 1		*Specification 2*		*Specification 5*		*Specification 1*		*Specification 2*		*Specification 5*	
Dependent variable:												
1 = Intrapreneurship												
0 = Else												
Female	−0.345***	(0.046)	−0.380***	(0.108)	−0.791***	(0.258)	−0.243	(0.194)	−0.415	(0.406)	−0.207	(0.490)
Family												
Married	−0.088*	(0.050)	−0.141**	(0.063)	−0.094*	(0.055)	−0.371**	(0.168)	−0.290	(0.276)	−0.379**	(0.171)
Children under age 11	0.053	(0.058)	0.060	(0.071)	0.064	(0.065)	0.071	(0.194)	0.143	(0.313)	0.061	(0.198)
Size	0.027	(0.019)	0.033	(0.023)	0.021	(0.025)	0.021	(0.052)	−0.016	(0.077)	0.027	(0.048)
Married × Female			0.140	(0.100)					−0.137	(0.349)		
Children under age 11 × Female			0.010	(0.115)					−0.113	(0.397)		
Size × Female			−0.018	(0.040)					0.072	(0.103)		
Employment												
Firm size: Ref = Firm size 100 to 999												
Firm size 99 or less	0.033	(0.060)	0.033	(0.059)	0.027	(0.065)	0.308	(0.234)	0.309	(0.231)	0.331	(0.236)
Firm size 1000 or more	−0.016	(0.061)	−0.015	(0.061)	−0.011	(0.068)	0.028	(0.252)	0.036	(0.252)	0.026	(0.262)
Race: Ref = white												
Black	0.394***	(0.070)	0.400***	(0.070)	0.351***	(0.124)	0.347	(0.243)	0.328	(0.255)	0.333	(0.261)
Hispanic	0.141*	(0.077)	0.143*	(0.077)	0.140*	(0.083)	0.323	(0.226)	0.318	(0.226)	0.341	(0.231)
Foreign born	−0.014	(0.070)	−0.015	(0.070)	0.051	(0.159)	−7.733***	(0.359)	−7.455***	(0.935)	−7.018***	(0.758)
Age: Ref = 55 and more												
18 to 24	0.362***	(0.099)	0.347***	(0.100)	0.380***	(0.124)	0.546	(0.349)	0.552	(0.364)	0.644*	(0.365)
25 to 34	0.245***	(0.080)	0.237***	(0.081)	0.239***	(0.086)	0.617*	(0.353)	0.629*	(0.356)	0.720**	(0.356)
35 to 44	0.192**	(0.076)	0.185**	(0.077)	0.146	(0.120)	0.778**	(0.316)	0.768**	(0.334)	0.857***	(0.321)
45 to 54	0.162**	(0.071)	0.156**	(0.071)	0.140	(0.090)	0.598**	(0.289)	0.611**	(0.291)	0.685**	(0.291)
Education: Ref = HS dropout												
HS graduate	−0.295***	(0.098)	−0.295***	(0.098)	−0.333*	(0.180)	−0.122	(0.252)	−0.129	(0.253)	−0.166	(0.363)
Some college	−0.124	(0.098)	−0.121	(0.098)	−0.176	(0.129)	−0.330	(0.260)	−0.316	(0.254)	−0.528	(0.363)
Bachelor	−0.225**	(0.100)	−0.221**	(0.101)	−0.345**	(0.149)	−0.430	(0.336)	−0.428	(0.333)	0.090	(0.410)
Postgraduate	−0.174	(0.107)	−0.166	(0.107)	−0.220	(0.186)	0.000	(0.326)	0.016	(0.321)	0.164	(0.461)
HS graduate × Female					0.336	(0.353)					0.076	(0.513)
Some colleage × Female					0.314	(0.302)					0.307	(0.522)
Bachelor × Female					0.568**	(0.279)					−6.854***	(0.880)
Postgraduate × Female					0.452	(0.286)					−0.246	(0.633)
Internet	0.344***	(0.072)	0.343***	(0.072)	0.317***	(0.117)	0.062	(0.210)	0.073	(0.211)	0.053	(0.213)
ρ	−1.000	$(1.21E-06)$	−1.000	$(4.42E-07)$	−0.876	(0.374)	−0.152	(0.900)	−0.300	(0.834)	−0.230	(1.284)
Constant	−1.822***	(0.127)	−1.804***	(0.132)	−1.765***	(0.212)	−2.382***	(0.427)	−2.286***	(0.528)	−2.492***	(0.555)
LL	-2327.373		-2324.381		-2322.413		-384.79		-382.6081		-379.9356	
AIC	4746.747		4752.761		4752.826		861.580		869.216		867.871	
N	9,331		9,331		9,331		1,782		1,782		1,782	

Notes: Robust standard errors are in parentheses. LL stands for Log Likelihood, and AIC for Akaike's Information Criterion.

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$