The Effect of Human and Financial Capital on the Entrepreneurial Process:
An Urban-Rural Comparison of Entrepreneurs in Indiana

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Introduction

      Entrepreneurship is a crucial ingredient towards economic growth and job creation. Small business start-ups are currently of great interest to many state and local governments including Indiana. With the growing need for entrepreneurs to stimulate small business development, it is necessary to understand the obstacles faced by these entrepreneurs in their attempt to start a business. From past research it has been revealed that the hardships encountered by entrepreneurs stem mainly from a lack of knowledge or skill and a lack of finances. Acs (2001) recognized that entrepreneurship can be more challenging in rural areas, given their remoteness, which limits their access to skilled labor, technology, and capital, and creates barriers to build networks. Thus, it is important to understand how human capital and financial capital contribute to the entrepreneurial process in urban and rural areas.

      The objective of this study is to gain insight into the human and financial capital factors that affect entrepreneurs in an urban and rural setting. A better understanding of these factors may provide small business development entities with the information required for effective guidance and counseling of entrepreneurs during the various stages of the start-up process.

      In the United States, the gap in economic well-being between rural and urban areas has widened sharply since 1979 (Drabenstott, Henry, and Gibson 1986). A large proportion of rural workers, as many as a fourth, are in jobs below their skill level because no other work is available in rural areas. Job skills of rural residents tend to be less versatile than those of urban residents. Also the range of employment opportunities is more limited for rural dwellers compared to the urban dwellers. Thus, there is considerable out-migration of population from rural areas to urban areas (Drabenstott, Henry, and Gibson 1986). According to the U.S. Census Bureau, more than 1,000 people live per square mile in core urban areas (technically termed as

'core census block') and more than 500 people per square mile in the surrounding census blocks of the core urbanized areas. "Rural" is defined as all territory, population, and housing units located outside of urbanized areas and urban clusters.

In Indiana, 35% of the six million residents live in rural areas. According to the Indiana Rural Development Council, rural residents are defined as residents who live in areas with less than 2,500 residents and rural counties are defined as counties that have approximately one-half of their populations living outside of areas of 2,500 or more residents. These communities generally lack the tax base, staff, and full-time leadership to support them. Rural residents lack services, choices, and opportunities in areas such as job and income opportunities, educational achievements, health care, housing, and infrastructure (Indiana Rural Development Council 2002). Unique challenges exist in rural areas for creating progressive communities in which to live, work, and raise a family.

Economic development of rural Indiana is manifested from the pattern of growth of small businesses in these areas. One measure of economic wellbeing is per capita personal income (PCPI). As per a survey by U.S Census Bureau (U.S. census 2000/STATS Indiana), all 10 counties in Indiana with the lowest PCPI in 2000 were rural whereas 8 of the 10 counties with highest PCPI in 2000 were urban. According to U.S. Census Bureau County Business Patterns (1991-2000), 8 out of 10 counties in Indiana with the smallest percentage increase in the number of business establishments were rural during the entire period of 1991-2000. And 5 of the 6 counties that showed negative or no business growth in this period was also rural. In contrast, 6 out of the 10 counties that showed largest percentage increase in number of business establishments in this period were urban. Acs (2001) found that 3 of the lowest 20 national labor market areas in average firm births (1994-1996) per 1,000 person labor force were found in rural

Indiana. In comparison to the remainder of the Midwest, Indiana was found to have a lower rate of firm growth.

Literature Review

Wortman (1990, 1996) suggests that rural entrepreneurship involves the creations of organizations that innovate in terms of products, markets, or technologies in a rural environment. Reid (1987), while citing a number of potential contributions entrepreneurship can make to rural economies, concludes that the creation of new jobs and the generation of additional income as new firms start and existing ones grow are the most apparent and important contributions of rural entrepreneurship.

It is commonly viewed that the prospects for venture creation and growth may be lower in rural areas than in urban areas (Reynolds, Storey, and Westhead 1994). Acs (2001) recognized that entrepreneurship can be more challenging in rural areas, given their remoteness, which limits their access to skilled labor, technology, and capital, and creates barriers to build networks. Although the results of some studies contradict this view (Chrisman, Gatewood, and Donlevy 2002), urban versus rural sites do appear to have different cultures that may influence perceptions and performance (Stearns et al. 1995).

Dabson (2001) suggested that rural businesses face a unique set of challenges, but that initiatives at the state level can encourage entrepreneurship throughout rural United States. Firms located in rural areas are especially vulnerable due to shifting demographics, economic trends, and changing market conditions. Rural America is going through an economic restructuring in which employment opportunities in traditional industries are declining because of firms relocating to low-cost labor markets overseas or businesses adopting new labor-saving

technologies (Barkley 2003). The conventional wisdom that industrial relocation is necessary to develop strong rural economies is giving way to an appreciation that entrepreneurship in rural areas can flourish (Lin, Buss, and Popvich 1990).

Many rural areas have lost agriculture and manufacturing jobs and are struggling for economic survival. Rural manufacturing has been especially subject to foreign competition in recent years. Rural manufacturing plants produce labor-intensive goods and, thereby face stiff competition from abroad where wage rates are often lower than in the United States (Henry, Drabenstott, and Gibson 1986). Additional employment opportunities are needed to utilize labor and management resources in rural areas. As a result, there is increasing interest in the potential for rural entrepreneurs to start new businesses and generate economic activity (Gladwin et al. 1989). Along with entrepreneurship and infrastructure, another key ingredient in launching new rural business is financial capital (Drabenstott, Henry, and Gibson 1987; DeWitt, Batie, and Norris 1988). Markley (2001) suggests that debt and equity capital are vital elements in funding a new business, but these resources can be difficult to tap in rural United States. Rural banks may not be willing to make nontraditional loans, and there may not be another bank around the corner to make that loan. The situation is even more challenging for venture capital. Venture capital investments in the Midwest were less than $20 per capita in 1999 (Drabenstott and Sheaff 2001). Many rural areas face a phalanx of funding problems-limited deal flow, higher costs per investment, limited opportunities for exiting deals, and a challenging local business environment (Drabenstott and Sheaff 2001).

Accessing venture or equity capital may be the most important hurdle hindering rural entrepreneurship. In many rural places, equity markets either do not exist or are unorganized at best (Markley 2001; Barkley 2003). The lack of information and high transaction costs limits

venture capital access for rural entrepreneurs. As a result, from 1995 to 1998, rural

entrepreneurial firms acquired a disproportionately small share of U.S. equity financing (Brophy

and Mourtada 1998). The discovery and growth of angel investors is quickly becoming a

common way to provide venture capital. Though angel investors provide smaller amounts of

venture capital to entrepreneurs, this seed money is often an important bridge to other sources of

capital.

Rural areas with the strongest entrepreneurial growth were those that overcame the twin

geographic problems of size and distance. Communities that are both small and remote make it

hard for rural entrepreneurs to build economies of scale. The local demand for products is limited

and resource acquisition is difficult (Dabson 2001). The result is higher prices for goods and

lower demand for services (Dabson 2001; Malecki 1994). In the 1990s, entrepreneur growth in

rural counties next to large urban areas averaged 3.4%, compared with 2.9 % in rural counties

next to small urban areas, and 2.8 % in rural counties not adjacent to an urban area (Henderson

2002).

Human and Financial Capital

Human capital constitutes the abilities and skills of workers that affect the overall

productivity of a venture. Formal education is one important component of human capital that

may assist in the accumulation of explicit knowledge and skills useful to entrepreneurs (Gimeno

et al. 1997; Reynolds et al. 2002; Montgomery, Johnson, and Faisal 2005). Higher levels of

education increase both the probability of becoming self-employed and the success of individuals

in that sector in terms of the earnings (Hisrich and Brush 1986; Robinson and Sexton 1994;

Bosma et al. 2004).

Having previous management experience does not demonstrate a significant effect but tacit knowledge acquired from previous start-up experience had a strong effect on business start-ups (Davidson and Honig 2003). Many arguments have been made recently about the effectiveness of small business assistance programs in improving human capital. Chrisman, Gatewood, and Donlevy (2002) compared the performance of entrepreneurial development programs in rural versus non-rural settings. They found that the assistance programs were capable of dealing with the problems of the entrepreneurs.

Financial capital is another crucial factor that very often determines venture success. Harding (2002) suggests that human capital has a direct effect on the ability of the entrepreneur to secure financial capital for ventures. Financial capital for a firm start-up most often comes from debt capital, from the entrepreneur himself, from business angels, or from venture capitalists. Rural entrepreneurs and small businesses have limited access to financing from venture capitalists. Due to the large size of venture capitalist funds, venture capitalists are investing less and less in the smaller initial, seed stages of this investment process. Since venture capital funding is largely unavailable to small businesses and angel funding is limited for small business entrepreneurs, these entrepreneurs mainly rely on debt and equity capital. Debt usually comes from financial institutions such as banks. Equity capital is generally acquired from the family of the entrepreneur.

Data

Several studies indicate that it is both difficult and expensive to find individuals when they are actually involved in business start-up activities (Reynolds et al. 2002; Menzies et al. 2002). Although it is extremely difficult to isolate entrepreneurs in the gestation stage from the

general population, it was believed that the entrepreneurs attending business start-up workshops were involved in the gestation period of the entrepreneurial process. Data used in the study were collected from a survey given to participants attending these workshops from April 2004 through June 2005. One hundred eighty-one individuals were identified to be in the gestation period of the entrepreneurial process. Of these, 84 entrepreneurs volunteered to participate in the survey, making the response rate to be 46.4%.

The details on the survey development and design can be found in Marshall and Oliver (2004). Through this survey, information was gathered on personal demographics, community demographics, human, financial, and social capital. This study concentrates only on human and financial capital. It is hoped that the information gathered through the survey may give improved insight into the relative importance of the factors of human and financial, while also giving information on how both personal and community demographics affect entrepreneurs in both rural and urban areas. The data is also hoped to provide information on the importance of place of residence in affecting participation in a business start-up.

Table 1 shows the frequency and percentages of respondents for each of the major variables of interest. Fifty-eight percent of the respondents resided in an urban city and 42% resided in a rural city. Approximately 31% of the participants involved themselves in a business start-up during the past 6 months. Figure 1 shows that 41% of urban respondents had participated in a start-up versus 18% of rural respondents.

Sixty-two percent were female and 38% were male. Seventy percent of the participants were in the 26-44 age categories. Thirty-eight percent of the respondents had some college education, 32% indicated that they had a bachelor's degree, and 19% indicated that they had a graduate degree. The different education levels of urban and rural respondents can be seen in

Figure 2, where urban respondents have a higher level of education than rural respondents. Approximately 31% of the participants had previous business start-up experience and 62% had attempted to create a business plan of which only 26.9% of them actually completed their business plan.

Sixty-four percent of the entrepreneurs surveyed indicated that their net worth was greater than $50,000. Fifty-nine percent of urban respondents had a net worth greater than $50,000 (Figure 3). Approximately 81% of the participants indicated that either they or someone within their household owned their place of residence. Of the participants, 91.7% indicated the presence of a large retail chain in their community.

Methods

The dependent variable used in the model was START. It indicated whether an entrepreneur had participated in a business start-up within the past six months (=1) or if he/she had not participated in a business start-up within the past six months (=0).

Fifteen independent variables were used representing personal demographics, human capital, financial capital, and location. Personal demographics were represented by gender and participation in the labor force during the past six months. Gender (FEM) will indicate whether being a male or female will affect business start-up. It is represented by female (=1) and male (=0). In a study by Reynolds et al (2002), men were twice as likely as women to start new businesses. Thus, it is expected that being a woman would have a negative effect on business start-up.

Labor force participation within the past six months was chosen as an independent variable as it is expected to have an effect on entrepreneurship. The labor force participation

variables included in the study were: employed during the past six months (EMP), self-employed during the past six months (SEMP), retired during the past six months (RET), student during the past six months (STU), and unemployed during the past six months (UEMP). Student during the past six months served as the reference group. Studies by Schuetze (1998), Acs, Audretsch, and Evans (1994), and Alba-Ramirez (1994) suggest that self-employment is positively related to unemployment. However, there are other studies by Blanchflower and Oswald (1998), Taylor (1996) and Abell, Khalaf, and Smeaton (1995) which suggest that unemployment has a negative effect on self-employment. According to Reynolds et al (2002), those not involved in the labor force such as housewives, retirees, the unemployed, and students are less likely to be involved in a business start-up compared to those with full or part-time jobs. Being employed during the past six months is expected to have a positive effect on business start-ups.

Four variables were chosen to represent human capital. They are: the highest level of education completed, previous business start-up experience, attempt to create a business plan in the past six months, and seeking five or more hours of business counseling. The variables for highest level of education completed were high school (HIGH), some college (COLLEG), bachelor's degree (BACH), and graduate degree (GRAD). High school served as the reference group. According to Reynolds et al (2002), individuals who finish high school and complete some additional education or training are more likely to be involved in the entrepreneurial process. In another study, Marshall and Oliver (2004) found that having a graduate degree had a positive and statistically significant effect on business start-up. Thus, it is expected that having some college or higher levels of education will have a positive effect on business start-up.

Another variable used to represent human capital was previous business start-up experience (PSTARTY). In a study by Davidson and Honig (2003), tacit knowledge acquired from previous start-up experience had the strongest effect on nascent activities. It is expected that having previous business start-up experience will have a positive effect on business start-up because a person who has previous start-up experience is more likely to make future attempts.

An entrepreneur's attempt to create a business plan (BPLANY) is another variable used to represent human capital. If an individual attempted to create a business plan in the past six months it was represented by 1 and if he/she did not attempt to create a business plan it was represented by 0. In the study by Marshall and Oliver (2004), attempting to create a business plan had a positive and statistically significant effect on business start-up.

The last variable representing human capital was whether an entrepreneur had received five or more hours of business counseling (COUNSY). If the individual had sought business counseling it was represented by 1 and if he/she did not involve himself in any counseling, it was represented by 0. This variable will determine whether business counseling has a significant impact on business start-up. It is expected that seeking some outside assistance will have a positive effect on business start-up.

To determine if financial capital affects business start-up, home ownership and net worth were included in the model. Home ownership (HHOY) represents access to equity capital. If an individual owns his/her place of residence it was represented by 1 and if he/she did not own his/her place of residence then it was represented by 0. According to Reynolds et al (2002), it is unclear whether home ownership causes entrepreneurial activity or vice versa. However, Marshall and Oliver (2004) found that home ownership had a negative and statistically significant effect on business start-up.

Net worth was divided into two categories: Net worth $50,001 or greater (NW5) was given a 1 and net worth $50,000 or less was given a 0. Studies by Evans and Jovanovic (1989) and Evans and Leighton (1989) indicate that an individual's high net worth makes him/her more likely to enter self-employment. Marshall and Oliver (2004) found that having a net worth between $50,001 and $75,000 or having a net worth of $100,001 and above had a positive and statistically significant effect on business start-up.

Community demographics were represented by the presence of a large retail chain within the community of residence and whether an entrepreneur resided in an urban/rural county. The presence of a major retail chain such as Wal- Mart, Target, K-Mart etc. within the community of residence (CHAINY) is given a 1 and the absence of a major retail chain is given a 0. This variable may indicate whether there are enough customers to support the presence of a major retail store and in turn enough clientele to support a small business. The presence of a large retail chain would also indicate the presence of sufficient infrastructure to support small businesses.

Reynolds et al (2002) indicated that the tendency to initiate start-up efforts is greatest among those living in more urban areas. If an entrepreneur lived in an urban city then UCITY equaled 1 and if an entrepreneur lived in a rural city then UCITY equaled 0. This categorization will provide insight into the factors that affect participation in a business start-up in an urban or rural setting. This categorization by city will also indicate if place of residence has an important role to play in predicting business start-up participation.

$$
\begin{aligned}
prob\,(START \; = 1 \big| X\,) &= f\,(X_i\,\beta) \\
&= f\,(\beta_0 + \beta_1 FEM \; + \beta_2 EMP \; + \beta_3 SEMP \; + \beta_4 RET \; + \beta_5 UEMP \; + \beta_6 COLLEG \\
&\quad + \beta_7 BACH \; + \beta_8 GRAD \; + \beta_9 PSTARTY \; + \beta_{10} BPLANY \; + \beta_{11} COUNSY \; + \beta_{12} NW5 \\
&\quad + \beta_{13} HHOY \; + \beta_{14} CHAINY \; + \beta_{15} UCITY \;)
\end{aligned}
$$

(1)

The cumulative distribution function for the logistic distribution was developed and is shown above. Using (1) one can determine the probability of an entrepreneur's participation in a business start-up within the past six months given the entrepreneur's personal demographics, community demographics, level of human and financial capital, and city of residence.

Results

Three variables were statistically significant in this model. These variables included net worth of $50,001 or greater, home ownership, and residing in an urban city. Net worth of $50,001 or greater was statistically significant at the 5% level. This indicates that entrepreneurs with a higher net worth are more likely to be involved in a start-up attempt compared to those with a net worth of $50,000 or less. This result concurs with other studies (Evans and Jovanovic 1989; Evans and Leighton 1989; Georgellis and Wall 1998; Reynolds et al. 2002; Montgomery, Johnson, and Faisal 2005) which found that individuals with higher net worth were more likely to be self-employed.

Home ownership had a negative effect on start-up attempt and was statistically significant at the 10% level. This indicates that if an entrepreneur owns a home he/she is less likely to be involved in a start-up attempt compared to an individual who does not own a home. Marshall and Oliver (2004) also found that home ownership had a negative affect on business start-up. Reynolds et al. (2002) found that home ownership was only statistically significant for black male entrepreneurs and even then the causality was unclear.

The place of residence variable was categorized into living in an urban city and living in a rural city. Living in an urban city as expected had a positive effect on business start-up attempt and was statistically significant at the 5% level. This indicates that if an entrepreneur lived in an

urban city he/she would be more likely to be involved in the start-up of a new business compared to an individual living in a rural city. Stern et al. (1995) found that location has an important role to play in a business start-up attempt and this is substantiated by the results of this model.

Probabilities

Probabilities were calculated to demonstrate the combined effect of the variables on participation in a start-up and are shown in Table 3. This table exhibits the probability of participating in a start-up (Y=1), given that each variable is present (Y=1, x=1) or not (Y=1, x=0). The probabilities for the variables in the logit model were calculated as follows:

$$(2) \qquad \hat{P} = F(X_i\hat{\beta}) = \frac{\exp(X_i\hat{\beta})}{1 + \exp(X_i\hat{\beta})}$$

where $\hat{P}$ represents the estimated probabilities calculated from the logistic function $F(X_i\hat{\beta})$. In Equation 2, X_i represents the mean value of each of the variables. The term $\hat{\beta}$ represents the parameter estimates for the independent variables received from the logistic regression model results above.

A female homeowner, employed during the past six months, with a graduate degree, a net worth of $50,001 or greater, presence of a major retail chain, and residing in an urban city would have a 99.14% probability of participating in a business start-up. If gender is changed to male and all else remaining the same the probability of participating in a business start-up drops slightly to 98.35% indicating that gender does not play a major role in determining the participation in a business start-up. If a female is residing in a rural city and all else remains the same, the probability of participating in a start-up drops slightly to 97.12%. This indicates that if an entrepreneur resides in an urban city he/she is 2.02% more likely to participate in a business start-up compared to an entrepreneur residing in a rural city.

A female, employed during the past six months, presence of a major retail chain, living in a rural city, with a bachelor's degree, and having net worth of $50,001 or greater, has 82.1% probability of participating in a start-up. In another case, a female homeowner, employed during the past six months, living in an urban city, with a bachelor's degree, has a 43.82% probability of participating in a business start-up. When the city is rural, she has 18.60% probability of participating in a start-up. The results from this indicate that net worth and place of residence play a major role while participating in a business start-up.

Conclusions

The results from this study could help provide small business development entities with information on the important determining factors of entrepreneur's participation in a small business start-up and help them focus on those important aspects. Several key points were evident in the logit model results, and the conclusions drawn from these findings can assist small business development and university-related centers in program design to effectively meet the needs of entrepreneurs participating in a small business start-up. The information gained from this study will also help small business development service providers to design seminars and programs in such a way that it will most benefit entrepreneurs.

Financial capital is an important factor for entrepreneurs as they take on the task of business formation. Out of the total of 84 participants, 30 participants fell into the lowest category of net worth, which signifies net worth less than $50,000. Participants with lower net worth may have greater difficulty in securing financial capital to take on the task of business formation. Those with medium and higher levels of net worth have the greater propensity to be involved in a business start-up. Thus to promote entrepreneurship at the lower levels of net

worth, some funding opportunities such as incentives for education, micro-enterprise loans etc, may be needed to help entrepreneurs with lower levels of income to participate in a business start-up.

Residing in an urban city had a positive and significant effect. It indicates that place of residence has an important effect on business start-ups. An individual living in an urban city will have greater and easier access to human and financial capital compared to an individual residing in a rural city. This may motivate him/her to explore the opportunities of a new business. Of those who participated in a business start-up approximately 77% were from urban city and only 23% were from rural city.

Workshops, programs and/or counseling should be designed so as to make the atmosphere conducive for entrepreneurs in rural areas to participate in a small business start-up. Rural residents tend to have less education than urban residents. According to Economic Research Service (2000), 22% urban residents complete some college whereas only 12% rural residents complete some college in Indiana. Thus, rural communities may need to encourage and provide greater incentives for higher education and more business management programs if they want to increase business formation and growth in their communities.

Although the findings of the study are sound and applicable to a more general low-growth entrepreneur population, it is not without limitations. One limitation is that a convenience sample of entrepreneurs was used. Only entrepreneurs who attended the workshops were included in the study. But the problems faced by the entrepreneurs attending the workshops may also be applicable to entrepreneurs in general and particularly to low-growth business entrepreneurs. Examples of low-growth businesses are retail, services etc, whereas high-growth businesses are high technology, life sciences such as information technology and bio technology.

High-growth entrepreneurs are typically motivated to start and develop larger, highly visible, and more valuable firms (Henderson 2002) compared to low-growth entrepreneurs.

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Table 1. Frequencies and Percentages for Variable of Interest

Variable	Variable Description	No. of Observations	Frequency	%
LR1	Lived in county <1 year	84	5	5..95%
LR2	Lived in county 2-5 years	84	23	27.38%
LR3	Lived in county 6-10 years	84	17	20.24%
LR4	Lived in county 10 or more years	84	39	46.43%
FEM	Gender Female	84	52	61.90%
MALE	Gender Male	84	32	38.10%
AGE1	Age Category 18-25	84	8	9.52%
AGE2	Age Category 26-44	84	59	70.24%
AGE3	Age Category 45-64	84	16	19.05%
AGE4	Age Category 65 or older	84	1	1.19%
BLACK	Black or African American	84	14	16.67%
WHITE	White	84	66	78.57%
AMERIND	American Indian or Alaskan native	84	1	1.19%
ASIAN	Asian	84	0	0.00%
HAWAII	Hawaiian or other Pacific Islander	84	0	0.00%
OTHER	Other race	84	3	3.57%
STARTY	Has been involved in a start-up of a new business within the past 6 months	84	26	30.95%
STARTN	Has not been involved in a start-up of a new business within the past 6 months	84	58	69.05%
BTYPE1	Retail type of new business	84	24	28.57%
BTYPE2	Service oriented type of new business	84	47	55.95%
BTYPE3	Farm-related type of new business	84	8	9.52%
BTYPE4	Technology-based type of new business	84	7	8.33%
CHAINY	Large retail chain located within community, like Wal-mart,Target,or K-mart	84	77	91.67%
CHAINN	Large retail chain not located within community	84	7	8.33%
JHIGH	Last grade of school completed was junior high	84	2	2.38%
HIGH	Last grade of school completed was high school	84	7	8.33%
COLLEG	Completed high school and some college	84	32	38.10%
BACH	Completed bachelor's degree	84	27	32.14%
GRAD	Completed graduate degree	84	16	19.05%
EMP	Employed during the past 6 months	84	63	75.00%
SEMP	Self-employed during the past 6 months	84	19	22.62%
RET	Retired during the past 6 months	84	3	3.57%
STU	Student during the past 6 months	84	6	7.14%
UEMP	Unemployed during the past 6 months	84	9	10.71%
PSTARTY	Has previous business start-up experience	84	26	30.95%
PSTARTN	Does not have business start-up experience	84	58	69.05%
BPLANY	Attempted to create business plan	84	52	61.90%
BPLANN	Did not attempt to create business plan	84	32	38.10%
COUNSY	Sought 5 or more hours of counseling from SBDC or University-related center	84	13	15.48%
COUNSN	Did not take any counseling or guidance	84	71	84.52%
NW1	Approximate net worth <$50,000	84	30	35.71%
NW2	Approximate net worth $50,001 to $ 75,000	84	8	9.52%
NW3	Approximate net worth $75,001 to $100,000	84	13	15.48%
NW4	Approximate net worth >$100,001	84	33	39.29%
HHOY	Own place of residence	84	68	80.95%
HHON	Does not own place of residence	84	16	19.05%
UCOUNTY	County of residence is urban	84	64	76.19%
RCOUNTY	County of residence is rural	84	20	23.81%
UCITY	City of residence is urban	84	49	58.33%
RCITY	City of residence is rural	84	35	41.67%

Table 2. Logit Regression Results

Variable name	Coefficient	Standard Error	P-Value
Constant	-4.080704	2.4985	0.1024
FEM	0.659884	0.6060	0.2762
EMP	-0.432681	0.9511	0.6492
SEMP	0.599154	0.9955	0.5473
RET	0.770105	1.9602	0.6944
UEMP	1.065331	1.1094	0.3369
COLLEG	1.106784	1.4865	0.4565
BACH	0.096011	1.5165	0.9495
GRAD	2.092450	1.5899	0.1881
PSTARTY	0.428968	0.6749	0.5251
BPLANY	0.177773	0.6260	0.7764
COUNSY	0.059642	0.8626	0.9449
NW5	1.548411*	0.7937	0.0511
HHOY	-1.799469**	0.9766	0.0654
CHAINY	1.451144	1.2766	0.2557
UCITY	1.227657*	0.6443	0.0567

Log likelihood function   -41.26
Percent correctly predicted   77.38%
[*] Indicates significance at the   5% level
[**] Indicates significance at the 10% level

Table 3. Probabilities

| Gender	Occupation	Retail Chain	Education Level	Net worth	Home ownership	City of residence	Probability
Female	Employed	Yes	Graduate	>$50,001	Yes	Urban	99.14%
Male	Employed	Yes	Graduate	>$50,001	Yes	Urban	98.35%
Female	Employed	Yes	Graduate	>$50,001	Yes	Rural	97.12%
Female	Employed	Yes	Bachelor's	> $50,001	No	Rural	82.10%
Female	Employed	No	Bachelor's	< $50,000	Yes	Urban	43.82%
Female	Employed	No	Bachelor's	< $50,000	Yes	Rural	18.60%
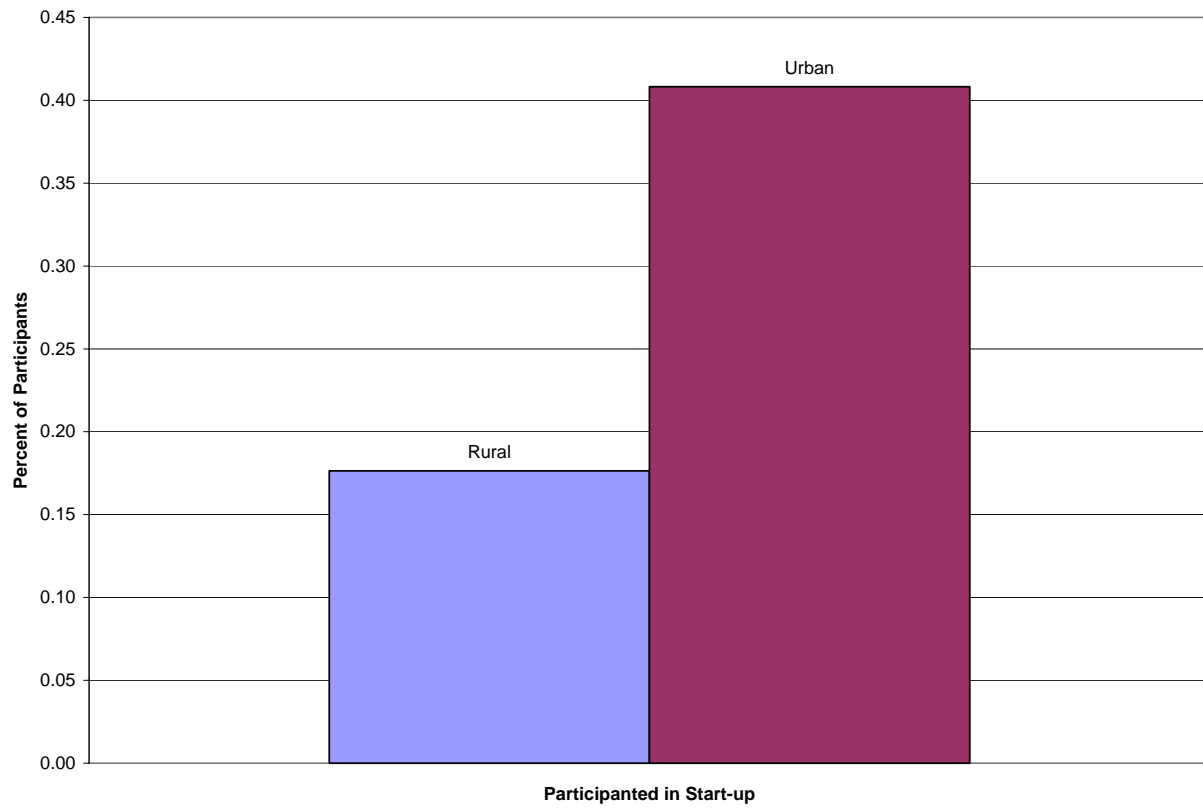
Figure 1. Percent of urban/rural respondents that participated in a start-up in the last 6 months
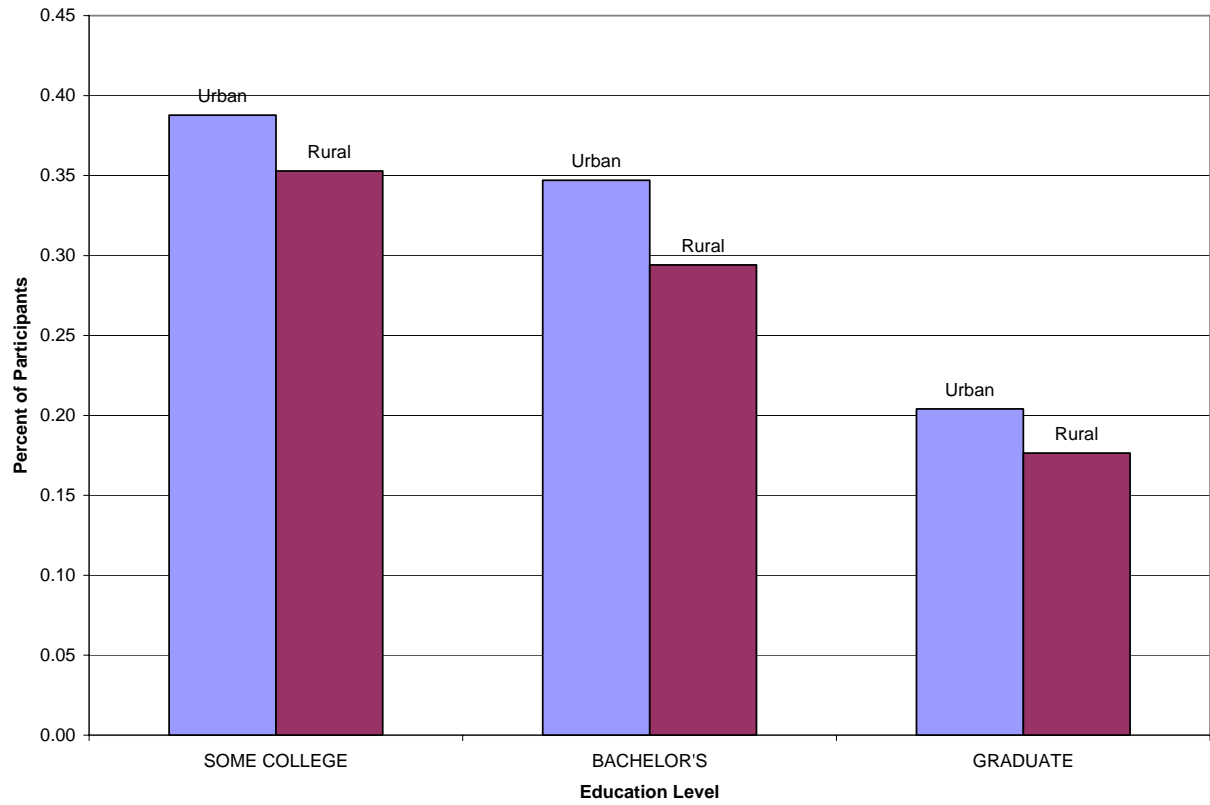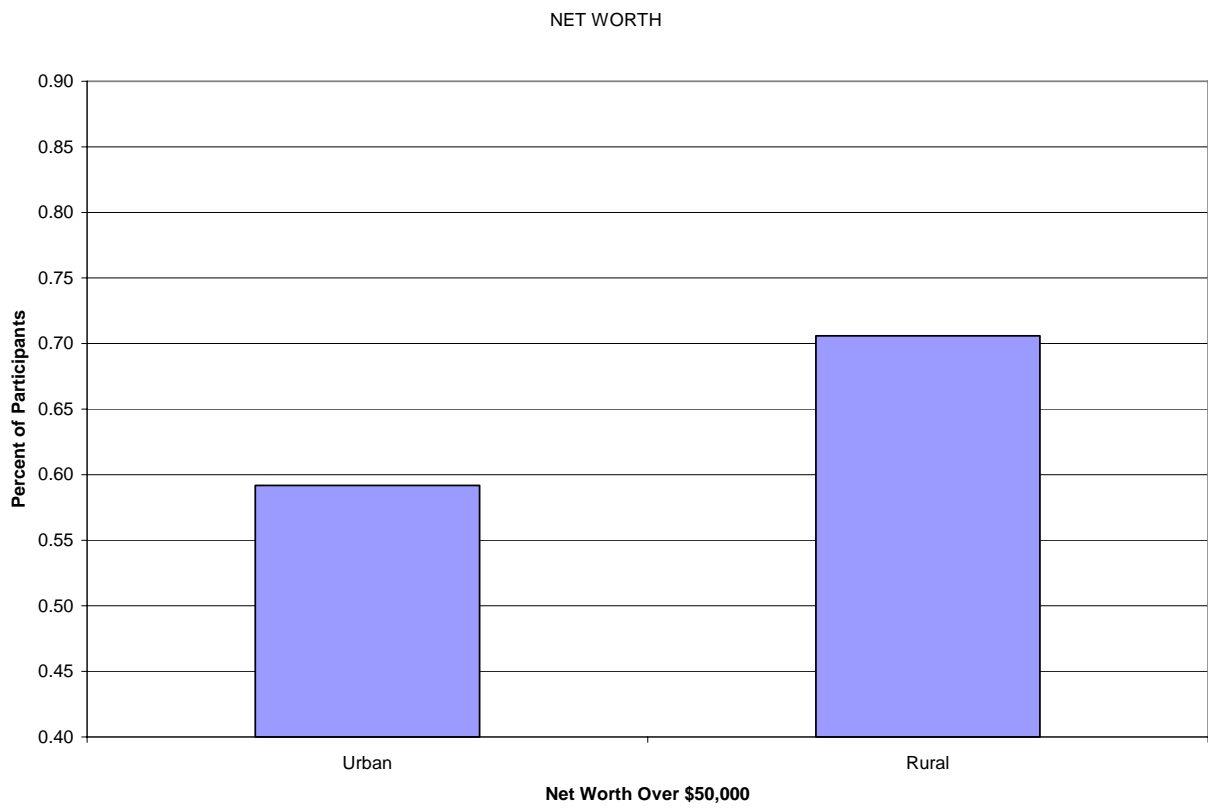
Figure 2. Level of education of urban and rural respondents

Figure 3. Net worth of urban and rural respondents