

**Abstract**

In 2015, 10.1% of the American workforce was self-employed, with rates ranging from 7.5% to 16.1% across states (Hipple and Hammond, 2016). A common theory of self-employment is the “push” hypothesis, that unemployment prompts people into self-employment (Rissman, 2003; Cole, 2016). In addition, researchers are investigating the influence of occupational structure on regional economies and employment (Feser, 2003; Markusen, 2004; Koo, 2005).

This study expands the literature on entrepreneurship and regional occupational composition by answering three research questions: (1) Do personal and city characteristics affect incorporated and non-incorporated self-employment differently, (2) How do human and social capital and previous employment experience affect a person’s likelihood of being self-employed, and (3) How does a city’s occupational composition affect a resident’s likelihood of being self-employed.

The study uses data from the 2014-2016 Current Population Survey, Annual Social Economic Supplements. I measure self-

**Introduction**

- In 2015, 10.1% of American workers were self-employed, ranging from 7.5% to 16.1% across states (Hipple and Hammond, 2016).
- Self-employment can be non-incorporated (e.g. sole proprietorship) or incorporated, with a formal ownership and legal structure.
- “Push” hypothesis of self-employment: unemployment prompts people into self-employment (Rissman, 2003; Cole, 2016)
- Investigations into effect of occupational structure on regional economies and growth (Feser, 2003; Markusen, 2004; Koo, 2005).
- This study expands the literature on entrepreneurship and regional occupational composition.

**Research Questions**

1. Do personal and city characteristics affect incorporated and non-incorporated self-employment differently?
2. How do human and social capital and previous employment experience affect a person’s likelihood of being self-employed?
3. How does a city's occupational composition affect a resident's likelihood of being self-employed?

**Methodology**

- **Data:** 2014-2016 Current Population Survey, Annual Social Economic Supplements
  - **Outcome:** Self-employment in four categories: (1) self-employed in an incorporated business, (2) self-employed in a non-incorporated business, (3) employee (as reference category), or (4) unemployed.
- Explores the effects of personal and city characteristics on self-employment on incorporated and non-incorporated businesses separately.
- **Personal Characteristics:** Using three groups of predictors: (1) demographic traits, (2) human and social capital traits, and (3) previous employment experience.
  - **City Characteristics:** Three distinct measures of city occupational composition:
    1. Primary Occupational Specialization, i.e., the occupation in which a city is most concentrated,
    2. Occupational Diversity, i.e., the number of a city's occupational specializations, and
    3. Occupational Dissimilarity, i.e. how different a city's occupational specializations are from each other.

Measured using location quotients, which compares the share of a city’s workforce in an occupation to the national share.

Location Quotient<sub>OC</sub> = (E<sub>OC</sub> / E<sub>TC</sub>) / (E<sub>ON</sub> / E<sub>TN</sub>)

Where: E = Employed, and subscripts O = Occupation, C = City, T = Total Workforce, and N = Nation.

A location quotient equal to or greater than 1.50 denotes a strong occupational concentration.

- **Model:** Multinomial logistic, with cluster-adjusted variances.

employment in four categories: (1) self-employed in an incorporated business, (2) self-employed in a non-incorporated business, (3) employee, or (4) unemployed. The project measures self-employed in incorporated and non-incorporated businesses to explore the different effects of the predictors on these two types of self-employment.

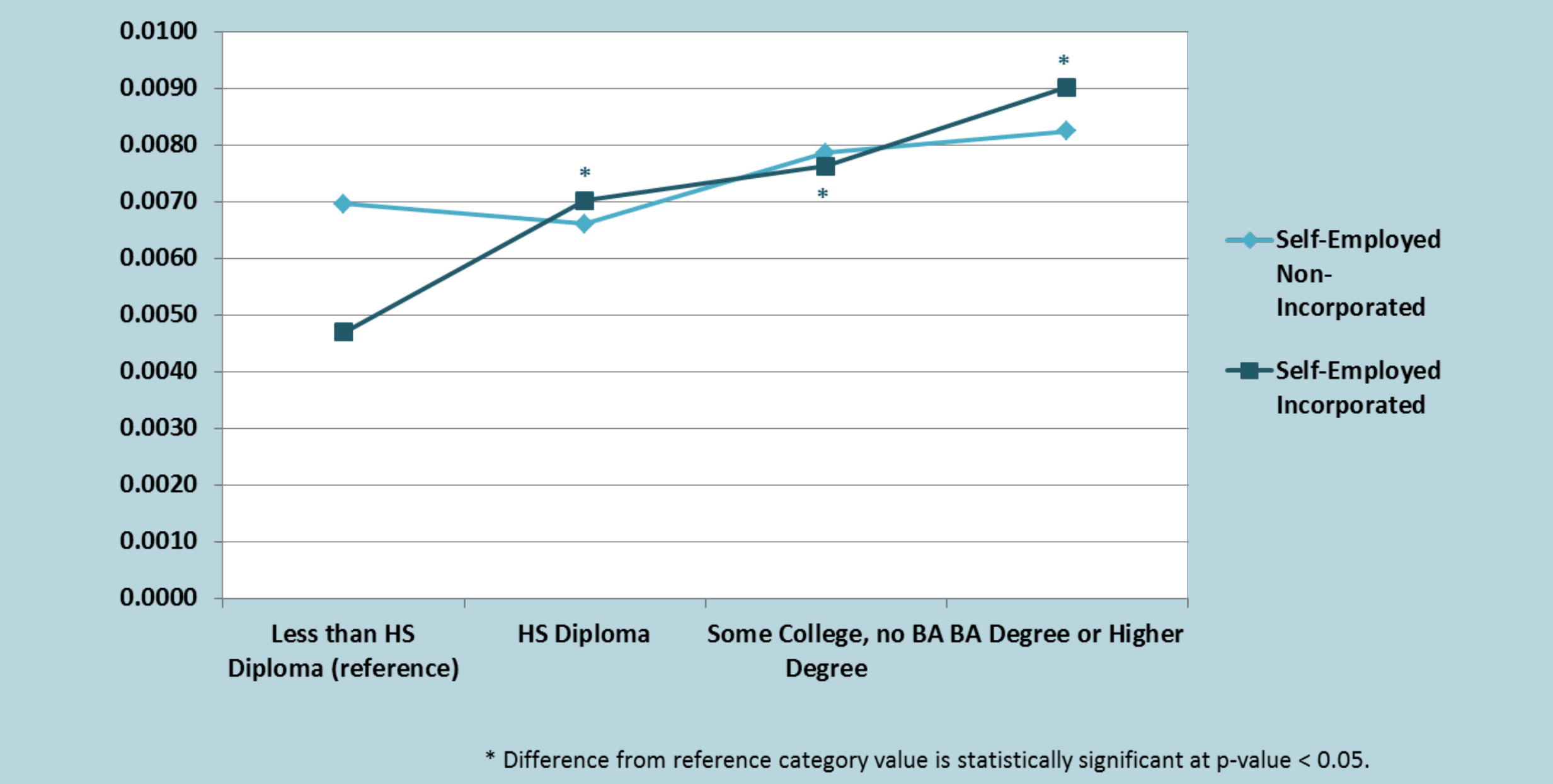
The study uses traditional location quotients to measure a city’s concentration in a specific occupation. With these location quotients, I employ three distinct measures of city occupational composition: (1) Primary Occupational Specialization, i.e., the occupation in which a city is most concentrated; (2) Occupational Diversity, i.e., the number of a city's occupational specializations; and (3) Occupational Dissimilarity, i.e. how different a city's occupational specializations are from each other.

I employ a multinomial logistic model to accommodate the four categories of the self-employment and use cluster-adjusted variance estimation to account for the correlation of self-employment within cities. Understanding how personal and city characteristics affect self-employment differently for incorporated and non-incorporated businesses can help policymakers see that there may be different pathways to entrepreneurship.

**Persons with more human or social capital are more likely to be self-employed in an incorporated business.**

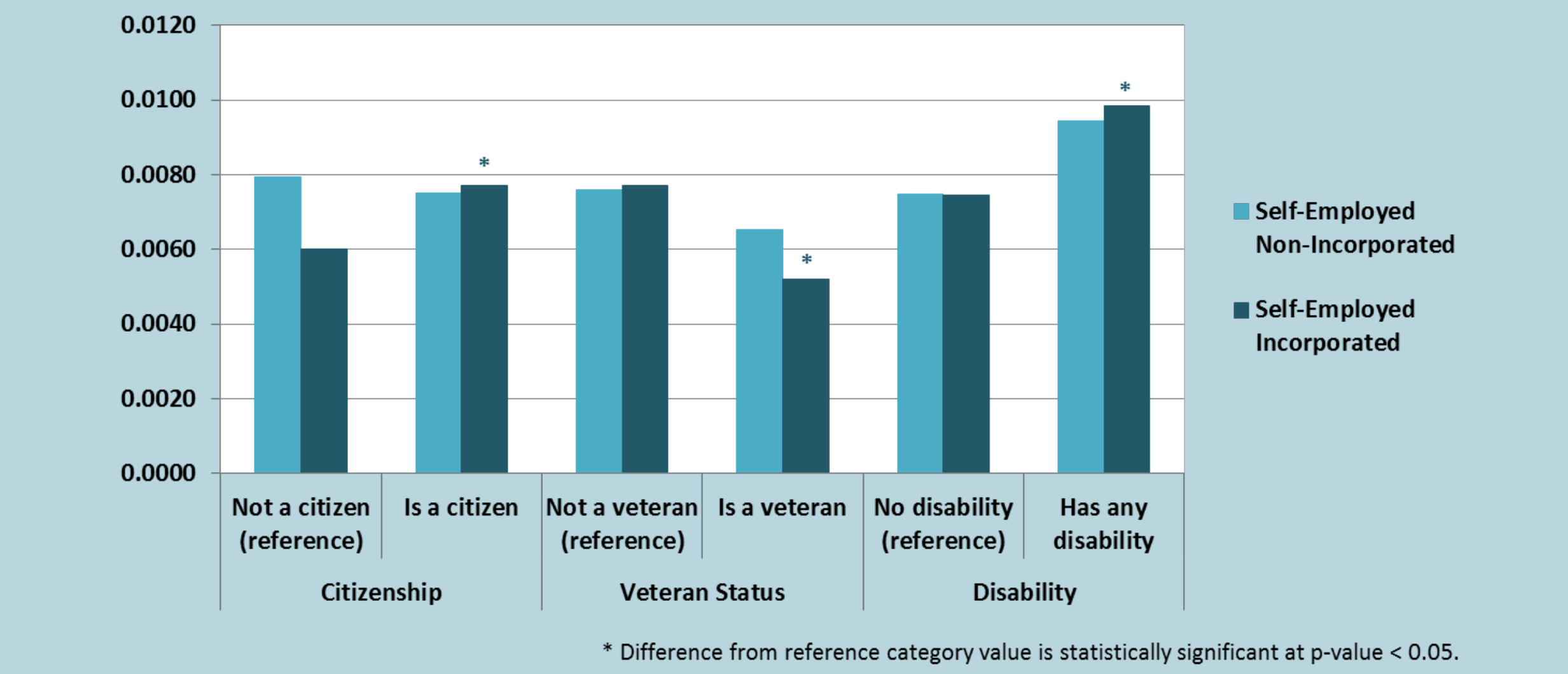
- Better educated individuals are more likely to have an incorporated business.
- Education is not correlated with having a non-incorporated business.

**Predicted Probability of Self-Employment by Educational Attainment**



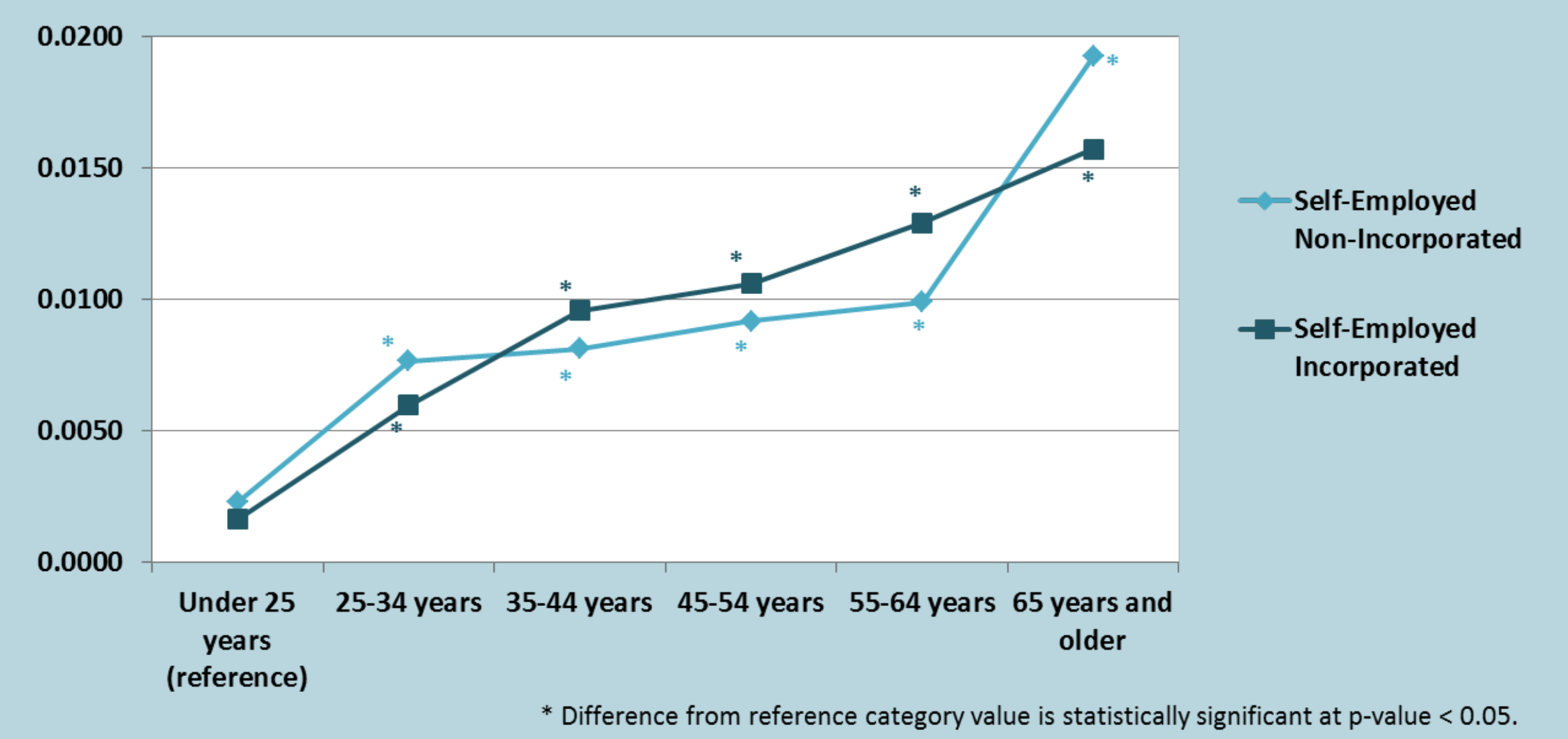
- U.S. citizens are more likely to be self-employed in incorporated businesses.
- Non-veterans are more likely to be self-employed in incorporated businesses.
- Citizenship, veteran status, and disability are not correlated with being self-employed in non-incorporated businesses.

**Predicted Probability of Self-Employment by Citizenship, Veteran Status, and Disability**



- Older people are more likely to be self-employed in either incorporated or non-incorporated businesses.

**Predicted Probability of Self-Employment by Age**



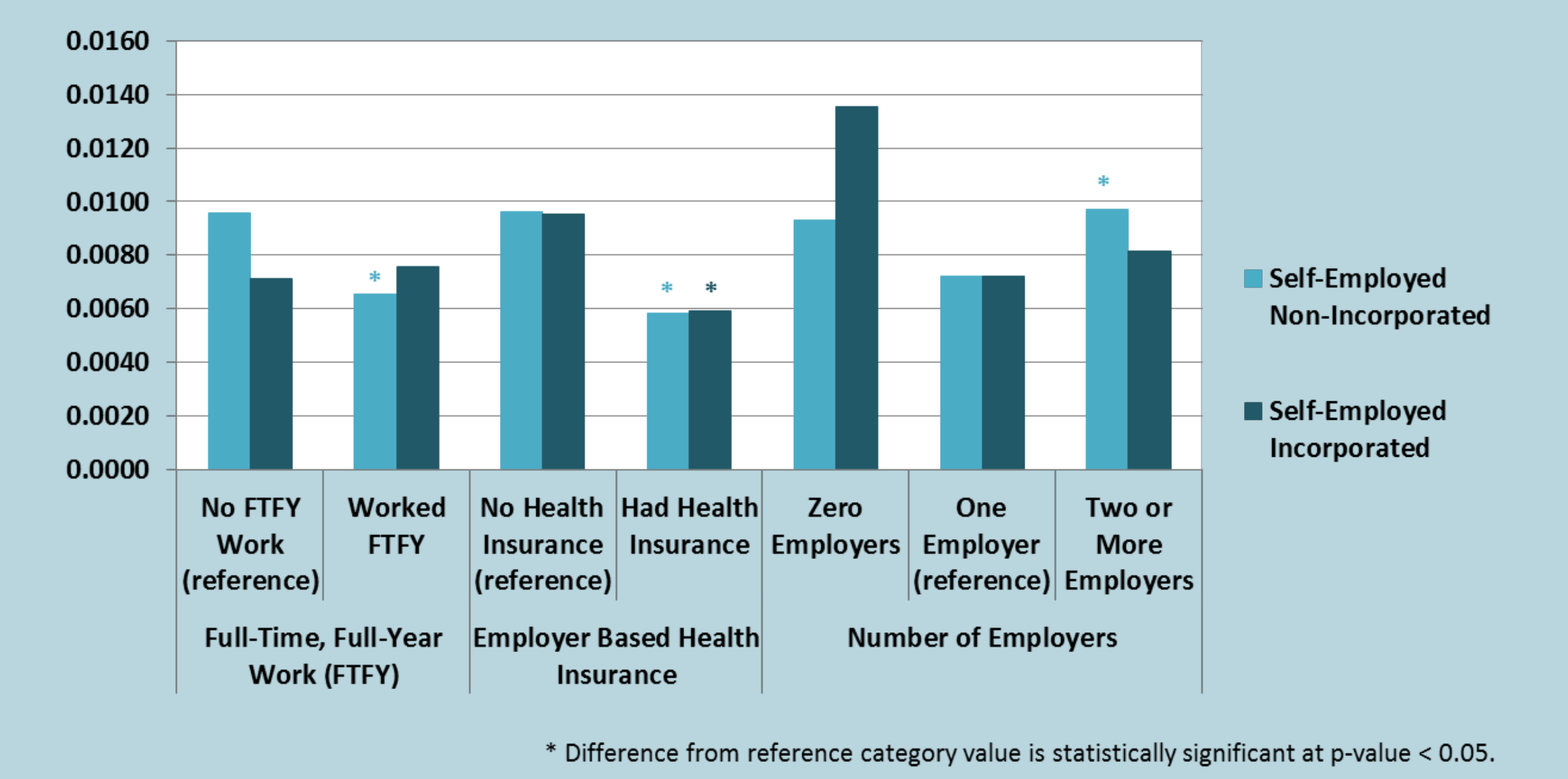
**Pathways to Entrepreneurship: Personal and City Predictors of Self-Employment**  
**China Layne, Ph.D.**

Labor and Employment Relations Association Annual Conference  
June 2, 2017

**Individuals with better employment experiences in the previous year are less likely to be self-employed in a non-incorporated business.**

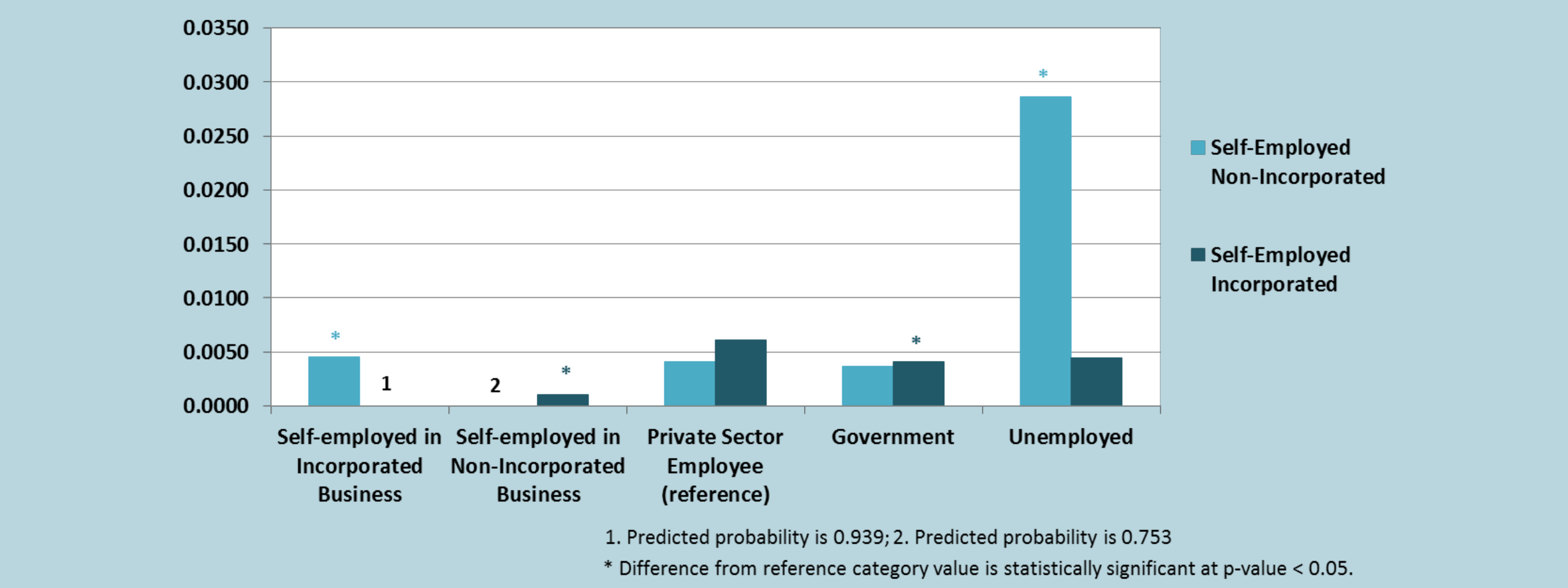
- People who had employer-based health insurance or worked full-time, full-year are less likely to have a non-incorporated business.
- Persons who had one employer (more stable work) were less likely to have a non-incorporated business.
- Working full-time, full-year and the number of employers are not correlated with having an incorporated business.

**Predicted Probability of Self-Employment by Previous Employment Experience**



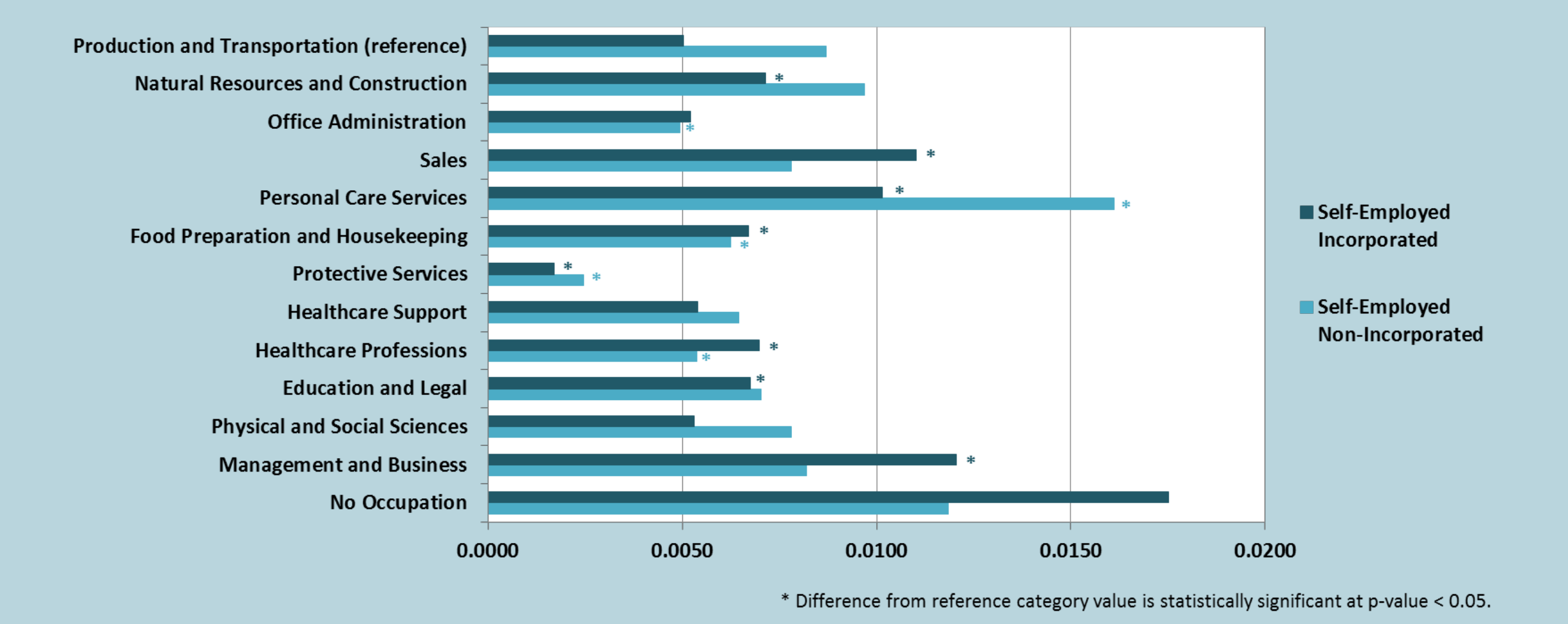
- People who were unemployed in the previous year are much more likely to have a non-incorporated business.

**Predicted Probability of Self-Employment by Previous Class of Worker**



- Individuals whose previous job was in personal care services (e.g. hairdressers, childcare workers) are much more likely to have a non-incorporated business.
- Persons whose previous job was in healthcare professions (e.g. doctor, dentist) are less likely to have a non-incorporated business.

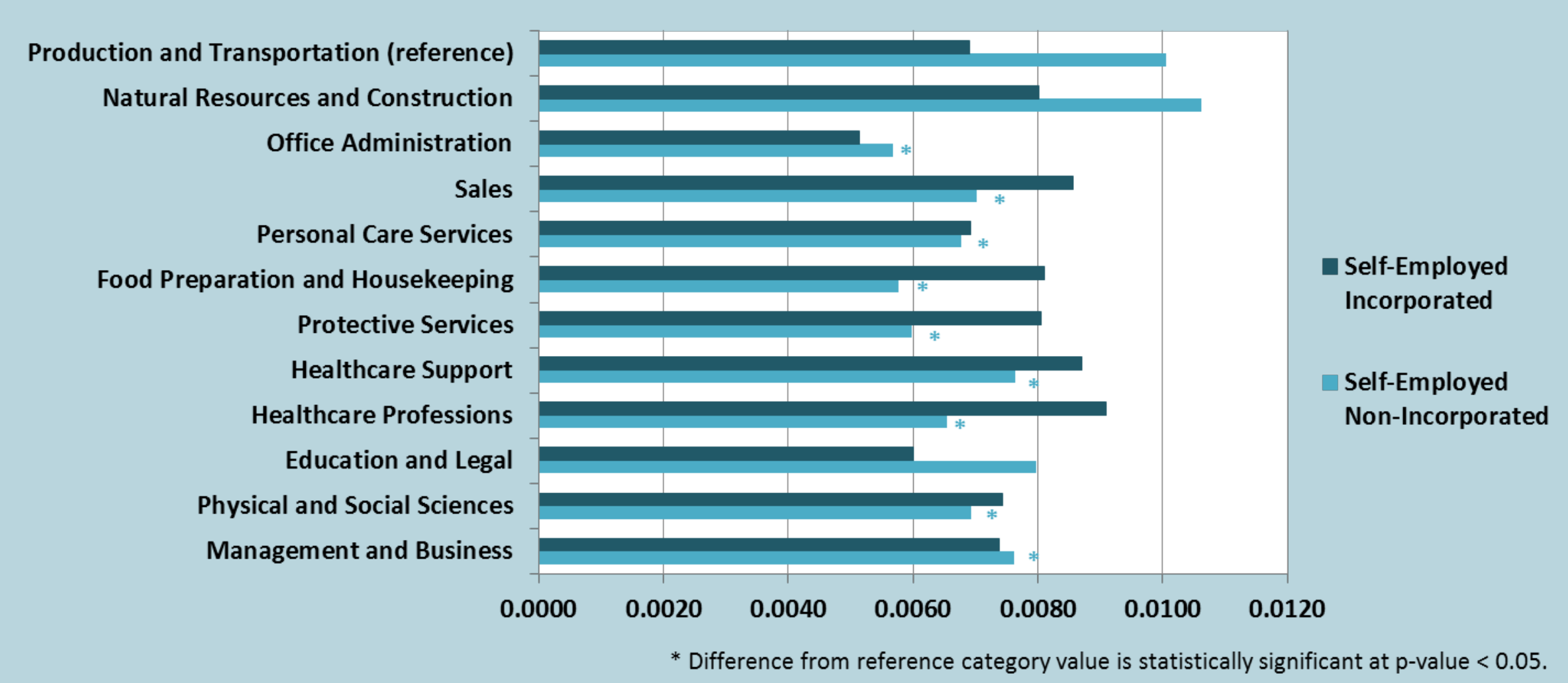
**Predicted Probability of Self-Employment by Previous Occupation**



**A city’s occupational mix is correlated with both types of self-employment.**

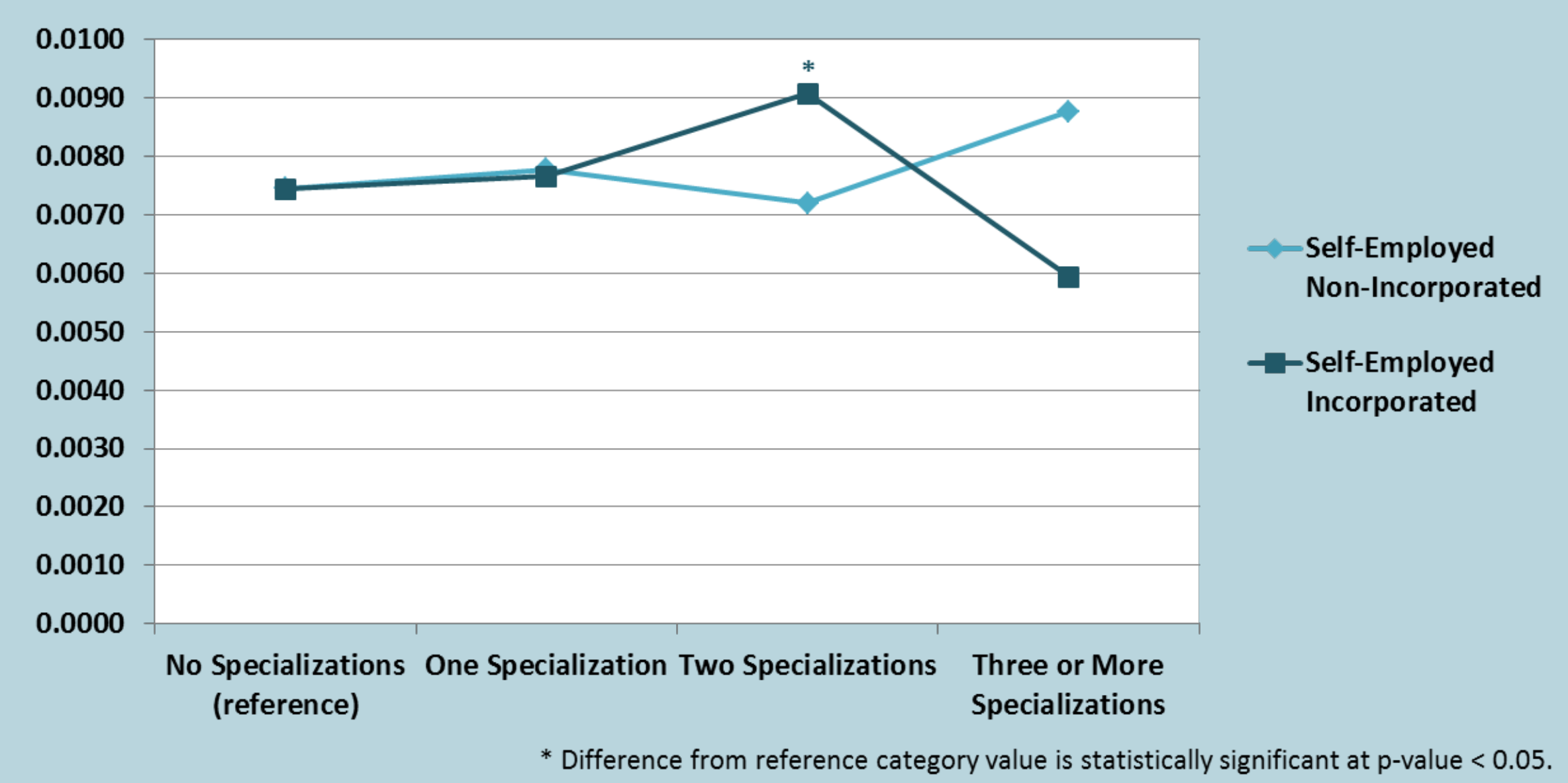
- Residents are less likely to have a non-incorporated business if their city’s primary specialization is in:
  - Office Administration,
  - Food Preparation and Housekeeping, or
  - Protective Services.
- A city’s primary occupational specialization is not correlated with having an incorporated business.

**Predicted Probability of Self-Employment by City Primary Occupational Specialization**



- Residents of cities with two occupational specializations are more likely to have an incorporated business.
- A city’s occupational diversity is not correlated with having a non-incorporated business.

**Predicted Probability of Self-Employment by City Occupational Diversity**



**Key Takeaways**

- Personal and city characteristics affect self-employment differently for incorporated and non-incorporated businesses.
- Results support the “push” hypothesis of self-employment for non-incorporated businesses.
  - Individuals with better employment experiences in the previous year are less likely to have a non-incorporated business.
- Persons with higher human and social capital are more likely to have an incorporated business.
- Residents of cities with certain occupational specializations are less likely to have a non-incorporated business.