

**Founders' Role Purity and the Aesthetics–Commerce Tradeoff:  
Owning or Cooking in Toronto Restaurants**

**Peter W. Roberts,<sup>\*</sup> Giacomo Negro and Anand Swaminathan**

Goizueta Business School

Emory University

Atlanta, GA, 30322

---

<sup>\*</sup> Peter Roberts is corresponding author and can be reached at Goizueta Business School, Emory University, 1300 Clifton Road, Atlanta, GA, 30322-2710; 404-727-8585 (w); 404-727-6663 (f); [peter\\_roberts@bus.emory.edu](mailto:peter_roberts@bus.emory.edu).

## **Founders' Role Purity and the Aesthetics–Commerce Tradeoff:**

### **Owning and/or Cooking in Toronto Restaurants**

We extend the role-as-resource thesis to account for the career processes that shape the identities of role claimants, focusing on the key role of organizational founder. Because careers span potentially role-consistent and role-inconsistent experiences, organizational actors become more or less effective occupants of their founding roles. Borrowing from recent research on organizational codes and identities and recognizing that aesthetic roles and ownership roles represent oppositional category pairs in cultural industries, we propose that the efficacy of founders' role-based claims is increasing in the level of prior role-consistent career experience, but decreasing in the level of role-inconsistent experience. Moreover, given the core status of aesthetic organizational elements within cultural industries, these positive and negative effects of prior role experience should be more salient on the aesthetic side of the aesthetic-commercial tension. These predictions are confirmed in an analysis of food and non-food quality outcomes within a large sample of Toronto restaurants over the 1990 to 2007 period.

“The impure is that which violates the categories and classifications of a given cultural system. Through amorphousness or ambiguity it brings together things that the cultural system wishes to separate” (Abbott 1981, pg. 824)

Hirsch (1972, pg. 641-642) observed that cultural products are “nonmaterial goods directed at a public of consumers, for whom they generally serve an aesthetic or expressive, rather than a clearly utilitarian function.” Whereas this quotation suggests the ability to emphasize one over the other aspect of the aesthetic-commercial duality, participants in cultural industries inevitably have to manage issues that arise at the nexus of art and commerce (Bielby and Bielby 1999). This nexus is highlighted by Caves (2003, pg. 73), who stresses that “the inspirations of talented artists reach consumers’ hands (eyes, ears) only with the aid of other inputs – humdrum inputs – that respond to ordinary economic incentives. The visual artist needs a gallery to display and promote works to potential purchasers. The author requires a publisher, the pop musician a record label ...” In practice, the aesthetic-commercial duality is not straightforward and cultural organizations wrestle with inherent tensions between the aesthetic and commercial as they strive to combine the practical and the symbolic aspects of production (Douglas 1966; Callero 1994).

In their study of the Hollywood film industry, Baker and Faulkner (1991) linked the enactment of specific roles to the effective management of these tensions and conflicts. Roles are resources that grant access to social and material capital as well as acceptance within relevant organizational communities. In the film industry, the enactment of specific roles like producer, director and screenwriter grants access to resources and are consequential for institutional acceptance and hence organizational performance. Baker and Faulkner (1991) demonstrated how role combinations that separate the commercial and artistic functions in film-making provide viable solutions to the problems of organizing cultural production. Producers specialize in the financial aspects of film production where they have advantages in advancing projects more swiftly and attracting resources controlled by external investors. As businessmen, they offer what are perceived as appropriate solutions to commercial problems. The enactment of consolidated artistic roles (i.e., writer-director) allows directors and screenwriters to maintain aesthetic control over

cultural projects while counterbalancing producers' bargaining power.

We extend Baker and Faulkner's (1991) treatment of roles and role composition by accounting for the career processes by which individuals develop the skills and identities that grant effective access to founding roles. One of the assertions of the role-as-resource thesis is that roles are first claimed and then enacted (Callero 1994). However, some "attempts to claim and exploit roles may be disputed, contested, or simply ignored" (Baker and Faulkner 1991, pg. 25). This is because roles, as cultural objects, are rooted in prevailing schemas and cognitive assumptions. Only when role occupants project the requisite identities will their role-based claims be viewed as consistent with prevailing schemas and cultural understandings. The question thus becomes: how does an individual come to possess an identity that fits these schemas and assumptions? Again in the context of the film industry, Faulkner and Baker (1987, pg. 889, emphasis added) observed how "attributes translate into professional reputation and *into a distinct industry identity*: the person slowly becomes a personage, a valuable commodity to buyers." Bielby and Bielby (1999) stressed that one of the tangible signals of an individual's future productivity is an association with prior projects. A similar claim was made by Giuffre (1999, pg. 818) in her study of Israeli artists: "histories of past associations travel with the actors as part of their prestige." In this way, the efficacy of role-based claims can be linked to an individual's prior career experiences. In the following elaboration of the role-as-resource thesis, we therefore emphasize that the accumulation of role-consistent and role-inconsistent career experiences has implications for role purity, which manifests itself in different dimensions of organizational quality.

Both role-consistent and role-inconsistent prior career experiences influence the extent to which an individual's identity is either centered in the relevant role category or pushed toward a more peripheral placement in that category. The propensity for role claims to be perceived as valid and therefore accepted by external evaluators increases with the amount of prior role-consistent experience. As such, role-consistent experience is critical to legitimating the claims of individuals to the roles they wish to play at founding. However, role efficacy reduces with the amount of prior role-inconsistent experience. This latter prediction is linked to the purity of a role claimant's identity. Role-inconsistent prior experiences

are detrimental because the demands of inconsistent roles are antagonistic to the demands of the focal role.

Our study focuses on the development and enactment of founders' roles and their implications for observed differences in food and non-food quality outcomes across restaurants in Toronto over the 1990 to 2006 period. We analyze the influence of restaurant founders' prior career experiences on the success of restaurants expressed by the evaluations of restaurant patrons in terms of food quality *and* service/ambiance quality. The findings will indicate that when founders accumulate prior career experience within their specific role categories, their restaurants receive more favorable evaluations than when those experiences cross over role categories. In other words, purer role-based identities are shown to dominate consolidated aesthetic-commercial identities. We will also show that the prior role experiences of founders with aesthetic orientations (i.e., chef founders) leave stronger (positive and negative) marks on restaurant evaluations, reflecting the greater importance of role enactment and role purity on the core aesthetic side of restaurant production.

### **Cultural Production: The Restaurant Industry**

“Restaurant food, like all food, has an aesthetic, sensory dimension and is evaluated as such by both producers and consumers.” (Fine 1996, pg. 13) The commercial side of the equation, however, is far from irrelevant. As such, restaurateurs “are caught between the demands of aesthetic creation and the viselike grip of free-market capitalism.” (Fine 1992, pg. 1271) Restaurant founders must develop both the aesthetic foundation that allows their new organizations to deliver high food quality *and* the capabilities that support the non-food dimensions that help a restaurant meet the commercial prerogatives of competition. In this respect, Chossat and Gergaud (2003) examined restaurant ratings in the context of differences in both food quality and the quality of setting and service and found that, among elite French restaurants, both types of evaluations mattered.

Restaurants have two additional features that are pertinent to a study of founder roles and founders' career backgrounds – relatively high organizational mortality rates and employee mobility

rates. While they certainly fall short of being categorized as temporary projects, restaurants are noted for their typically short life spans (Freeman and Hannan 1983, pg. 1130). Fine (1996, pg. 11) observed this short life expectancy, noting that roughly 20 percent of new restaurants close within a year and half close within five years. Given this precarious life span and the documented persistence of founding organizational imprints (Baron et al. 1999; Boeker 1989), it is important to understand the effects of founders and founding roles on restaurant outcomes. Fine (1996, pg. 43) went on to take note of the relatively high employee mobility rate in the industry: “throughout the 1980s, the restaurant and hospitality industry expanded rapidly ... job mobility permitted cooks to decide where they wanted to be. By changing restaurants, they could climb the industry status ladder.” This mobility, which is consistent with prior studies of cultural industries, makes the linkage between career backgrounds and founding role enactment highly pertinent.

Like the individuals responsible for temporary projects in the film industry, there is a tendency for role specialization among restaurant founders. In particular, we tend to see two different founder roles: chef founders and non-chef founders. The food-centered orientation of chef founders leads them to focus more on the back of the restaurant, while non-chef founders tend to specialize on the commercial aspects of restaurant production. This distinction between founder roles is evidenced in Table 1, which presents two examples of chef founders in our data (David Aisenstat at *Ki* and Bob Bermann at *Boba*) and one example of a non-chef founder (David Adjey at *Nectar*). It also shows how founding groups can be comprised of only non-chef founders (e.g., *Ki*), only chef founders (e.g., *Boba*), or combinations of chef founders and non-chef founders (e.g., *Nectar*).

**Table 1 about here**

Table 1 also shows three different pre-founding career histories. David Aisenstat held ownership positions in four different restaurants before founding *Ki*. David Adjey held nine different jobs as chef, executive chef or sous chef before founding *Nectar*. While these two founders accumulated employment experiences exclusively in one role type, Bob Bermann accrued both types of pre-founding experience

before founding *Boba* in 1994.

The following section develops a set of hypotheses about how founder roles and pre-founding career histories can become resources or even liabilities as restaurant employees and founders strive to meet the aesthetic and commercial demands of market-based competition. In doing so, we emphasize the two principal domains of restaurant work that map onto the aesthetic and commercial demands faced by restaurants, and their implications for the two founder roles emphasizing aesthetics and commerce, chef founders and non-chef founders. Chef role experiences include the various cooking roles that allow individuals to better appreciate and understand the aesthetic aspects of restaurant production. Fine (1996, pg. 49) noted that “a key indicator that a novice has become a competent cook is the development of a professional stance: a set of public behaviors and attitudes that validates that one shares the abilities and values of one’s fellows.” Previous experiences in chef roles should enable founders to produce food offerings with greater aesthetic appeal. Ownership experiences allow individuals to accumulate knowledge and insights that help to better understand the interface between the food production and the customers that will ultimately consume, evaluate and pay for that food.

### **Theory and Hypotheses**

Baker and Faulkner (1991, pg. 283, 284) defined a role as a bundle of norms and expectations that is “used to pursue interests and enact positions.” Specific roles first define and signal an individual’s identity and then grant access to the cultural, social and material capital that influence the directions organizing will take. For role claims to be accepted and for required cultural capital to be secured at founding, role claimants must project identities that fit the specific role enacted at founding. In this section, we propose that pre-founding career experiences have implications for the development of appropriate role-based identities.

Baker and Faulkner’s (1991) two role effects – resource attraction and identity-based organizational enactment – map neatly onto current treatments of how pre-founding employment experiences can influence organizational imprinting. Here, Freeman (1986, pg. 33) suggested that pre-

founding employment experience “provides individuals with the ability to attract resources and knowledge about where to allocate those resources.” Previous employers also provide individuals with “models for organizing new firms (both positive examples to be emulated and negative examples to be avoided).” The specific bridge between prior career experiences and founder role enactment that we emphasize is that which contributes to a founder’s role-based identity. In support of this emphasis, Boeker (1988) showed how an entrepreneur’s background conditions how she views the world and therefore the values and ideas that she brings to her nascent organization. When there is incongruence between prior career experiences and the requirements and expectations of a specific founding role, these values and ideas can become problematic. In this respect, Higgins and Gulati (2006) discussed the importance of role legitimacy, or the matching of career backgrounds and the roles served by members of a top management team.

Polos et al. (2002, pg. 90) stressed that “an identity constrains what an entity would/could be and what is expected and not expected of it.” While the specific context of their analysis was the organizational form, their logic can be applied to the identities that characterize individuals who occupy founding roles in an organization. In this sense we see roles as representing sets of cultural assumptions and schemas of generalizable features from which an identity is formed (Callero 1994). The mapping of observed incidences or absences of requisite role features determines the extent to which an individual is perceived to hold the identity deemed relevant for the role in question. An individual’s prior career experiences are among these salient codes, and the role purity associated with these prior experiences has implications for the extent to which an individual projects the identity required to effectively enact a specific founding role.

Polos et al. (2002, pg. 86) also asked “What do social agents recognize when they ‘see’ a form; or, more precisely, how do they identify form boundaries?” Baker and Faulkner (1991, pg. 285) linked the efficacy of a claim to the screenwriter role to the possession of a completed script because this artifact provides tangible indication that one belongs in the category of screenwriter. We return to the above-mentioned research on pre-founding career experiences and argue that prior employment in relevant roles

serves a similar legitimating role. This association between role-based legitimacy and occupational choices is also featured in Abbott's (1981, pg. 824, emphasis added) discussion of status strain among professionals: "purity of practice is *easily ascertained* in a short conversation as well as *easily inferred* from such characteristics as specialty."

As suggested earlier, individuals who establish restaurants may claim one of two different founding roles: non-chef founder and chef founder (see Table 1). The former specializes in the commercial aspects of restaurant production while the latter emphasizes the aesthetic elements. The effectiveness of role claimants depends on whether they project appropriate role-based identities which should depend on the composition of their pre-founding restaurant careers. Given the need for role-consistent pre-founding career experiences, we expect to find support for the following hypotheses:

**Hypothesis 1a.** For chef founders, pre-founding experiences in chef roles will have a positive impact on a restaurant's food quality

**Hypothesis 1b.** For non-chef founders, pre-founding experiences in ownership roles will have a positive impact on non-food quality

Role-inconsistent prior career experiences, however, should have negative implications for a role claimant's ability to project the requisite identity and attract needed resources. A number of studies suggest that more focused experiences – i.e., those which accumulate in a narrow range of activities – confer advantages over more broad-based experiences. For example, sellers that auction items in fewer eBay categories complete more subsequent transactions (Hsu et al. 2007), and wineries that focus on a single vinification style receive higher quality ratings from critics (Negro et al., 2008). Zuckerman et al. (2003, pg. 1067) examined the phenomenon of typecasting in the motion picture industry and concluded that "without any other evidence of skill to the contrary, a worker who attempts to be a generalist faces the threat that she will be regarded as a dilettante who is not competent at any type of work." This idea generalizes to an individual's effectiveness at having founding role claims accepted.

Those whose careers have spanned role categories – in particular, the categorical boundary between aesthetic and commercial roles – develop identities that are not fully congruent with any one founding role’s requirements. Given the often-documented tensions between aesthetic and commercial contributions to success in cultural production, it is appropriate to talk about chef-role and ownership-role experiences as oppositional category pairs (Rao et al. 2005). Borrowing a menu item from an opposing category (i.e., nouvelle cuisine) compromises the degree of membership in a category (i.e., classical cuisine). Similarly, adding career experiences from an opposing role category threatens membership in the focal category. Two specific mechanisms underpin this expectation. In his theorizing about status strain within professions, Abbott (1981, pg. 823) stressed that “intraprofessional status is in reality a function of professional purity. By professional purity I mean the ability to exclude nonprofessional issues or irrelevant professional issues from practice.” In the context of role-based identities, this purity argument suggests that the ones most likely to have their role claims accepted are those whose prior experiences lie fully within appropriate roles. While role-consistent experiences accumulate to certify the identity of the role claimant, role-inconsistent experiences diminish perceptions of worthiness and make role-based claims problematic. At the same time, Goode’s (1960) theory of role strain alludes to the difficulties associated with fulfilling multiple conflicting role obligations (e.g., aesthetic and commercial). When individuals take part in many different role relationships, the total role obligations may become over-demanding. Strained individuals learn to compartmentalize (i.e., set aside certain obligations at certain times), delegate, or eliminate less essential role obligations. In the context of short-term business pressures, this might entail setting aside non-role obligations.

The accumulation of pre-founding experiences in *both* aesthetic and commercial roles therefore has implications for a founder’s ability to address a restaurant’s twin organizational objectives. For those responsible for the aesthetic (commercial) aspects of restaurant production, accumulating experiences on the commercial (aesthetic) side of the house instills and imprints compromises that make them less willing or able to deliver high food quality (non-food quality) outcomes:

**Hypothesis 2a.** For chef founders, pre-founding experiences in ownership roles will have a negative impact on a restaurant's food quality

**Hypothesis 2b.** For non-chef founders, pre-founding experiences in chef roles will have a negative impact on non-food quality

Our final prediction focuses on whether the implications of role purity are symmetric across the aesthetic and commercial domains of restaurant production. If competence alone matters in defining roles, we would expect that accumulation of experience of chef founders in ownership roles to be as consequential as the accumulation of experience of non-chef founders in chef roles. If, however, aesthetic roles are stronger markers for evaluation and greater experience of chef founder in ownership roles denotes an obfuscation of a restaurant's identity, then we would expect asymmetric effects due to the influence of identity related to the chef founder's core role.

Hannan and Freeman (1984, pg. 156) suggest that certain elements of an organization are core because efforts to change them "raise fundamental questions about the nature of the organization." Hannan et al. (2006, pg. 575) extend the notion of core to include the values, beliefs, and premises that define the identity of an organization: "Identity refers to defaults for relevant audience members that organizations will possess certain features ... prescribe[s] characteristics and behaviors whose absence exposes organizations to negative evaluations and consequences." They go on to link identities to cultural blueprints, which are set down by organizational founders. Founding roles that determine the identity of an organization are those that define its core elements (Baron 2004). In cultural production, an organization's identity tends to emanate from the aesthetic side of the aesthetic-commercial duality. In the restaurant industry in particular, chef founder roles mark *the* key facet of a restaurant's identity: "The chef is the one who's setting the standard ... the chef expresses a vision." (Ruhlman 2006, pg. 336) This is evidenced in the following passage:

"So what is the perception of what a chef does? That's really interesting. Because we don't cook everything. People say, 'Well the food is better when you're there, Thomas.' In some cases, I've just arrived. I'm coming in the back door, I put my jacket on, I go out

to say hello to a guest, and they say, ‘Oh, my God, thank goodness you’re here, because the food is so much better when you’re here.’ It’s not, it’s the perception that it is, which is important. Don’t get me wrong. Perception is about everything. So if the guest thinks the food is better because I’m in the dining room or in the kitchen, then the food is better.” (Ruhlman 2006, pg. 319)

Accumulating incoherent experience by founders who occupy chef founder roles leads to considerable confusion about the identity of the newly-founded organization, and is followed by devaluation when the organization receives reliability and quality assessments.

**Hypothesis 3.** Because food quality is more intimately tied to the core features of a restaurant, the positive and negative effects of prior role experiences will be more pronounced when it comes to chef founders and to food quality

### **Data and Analysis**

Our analysis is based on a combination of two unique databases. The first is the *Chef and Restaurant Database (CRDB)*. This on-line data source is the outcome of ‘an ongoing project aimed at documenting the history of chefs, restaurants and restaurateurs.’ According to their website ([www.chefdb.com](http://www.chefdb.com)), “[the *CRDB*] originally focused on historical chef and restaurant listings. As such, the database initially grew based on ‘homegrown’ research conducted by [*CRDB*] editors in newspapers, magazines, books, Web sites and from information gathered through acquaintances. No online submissions were accepted from the chef and restaurant community. Today, approximately 65% of new database listings are derived from such research, conducted primarily in several major newspapers offering online, subscription-based archives dating back several decades. So, even today, most of the information posted to [*CRDB*] is already publicly available on the Internet.” By the end of 2006, The *CRDB* provided information about more than 2,100 Toronto restaurants, including their addresses and in the majority of cases years of operation. It also provided information about the various individuals who occupied different jobs in each restaurant between founding and closing. The *CRDB* also reported on roughly 3,200 individuals occupying more than 6,730 different restaurant jobs. The most prolific job titles found in this database are

summarized in Table 2, which shows how we classified each of these job titles into the two different role categories: chef roles and ownership roles. While employed in a chef role, an individual develops back-of-restaurant experience which maps onto the aesthetic aspect of restaurant production. Employment in ownership roles creates experiences that map onto the commercial aspect of restaurant production.

**Table 2 about here**

From the *CRDB*, we ascertained the founders of various restaurants, as well as the specifics of each individual's pre-founding career experiences within the restaurant industry. The former task was accomplished by matching each restaurant's year of founding with the individuals occupying ownership roles in the same year. Once the founders were identified, we searched all previous years in the *CRDB* and counted the total number of years that each founder occupied different jobs in other restaurants. We combined the information about founders, founder roles and career backgrounds into four different variables. For the non-chef founder and then the chef founders, we counted separately the total number of years of prior ownership and prior chef role experiences.

**Table 2 about here**

We test our predictions by linking these founder background variables to quality information taken from *Patrons Pick* and the Toronto area *Zagat* guide. *Patrons Pick* is an annual (1990 to 2006 excluding 2001, 2002 and 2005) survey of Toronto restaurant customers that reports aggregate ratings on 100-point scales of three dimensions of restaurant quality – food, service and décor. Holbrook (1999) queried the association between popular appeal and expert judgment. In the context of the movie industry, he finds that consumers and experts do track different things in their quality assessments. However, their assessments are positively (albeit weakly) correlated with one another. Our *Patrons Pick* / *Zagat* ratings likely fall in between these two extremes. Consumer raters do not have the training to qualify as expert critics. At the same time, they are lead users whose interest in participating in the guides makes them closer to the expert than is the typical restaurant patron.

For each dimension, customers who have patronized a restaurant are asked to rate it according to the following standard: 0 to 25 points=weak, 26 to 50 points=fair, 51 to 65 points=good, 66 to 80 points=commendable and 81 to 100 points=outstanding. All of the scores that are received through the mail or through the *Patrons Pick* website are averaged across respondents. This produces one food, one service and one décor score for each restaurant in each annual volume. We augment the *Patrons Pick* source with an additional four years of restaurant quality information from the *Zagat Guide* (1994, 1999, 2002 and 2006), which provides similar information to that published in *Patrons Pick*. *Zagat's* food, service and décor scores are derived based on a similar process but are reported on 30-point scales. We therefore adjusted each of the *Zagat* scores by multiplying by 10/3. Note that in 460 observations that return quality scores from both *Patrons Pick* and *Zagat*, the food, service and décor scores are correlated at 0.57, 0.49 and 0.59, respectively. In all of these cases, we averaged the two scores to form single indicators of the different dimensions of restaurant quality. In the models that we report, the food quality variable is that reported in the guides, while the non-food quality variable is the average of the service and décor scores.

Given possible differences in the quality information coming from the two sources, each model includes a pair of dummy variables indicating whether the quality information came from *Zagat* or from both *Patrons Pick* and *Zagat*. We use the founding year information supplied by the CRDB to create a restaurant age control variable. We also include three price-level dummy variables (with one dollar sign being the omitted category) and a set of indicator variables for observation year and restaurant locale in each model. *Patrons Pick* also indicates each restaurant's price level, which ranges from one (under \$35 from 1990 to 1998; under \$40 from 1999 to 2006) to four (\$80 and over from 1990 to 1998; \$120 and over from 1999 to 2006) 'dollar signs'. These signs reflect the estimated cost of dinner for two, including a glass of house wine. Prices in *Zagat* are reported as more precise dollar amount per single diner, and are therefore doubled and then converted to dollar signs according to the ranges provided by *Patrons Pick*. *Patrons Pick* also indicates the restaurant's locale (e.g., Midtown or Theatre District).

Another important control variable is the size of the founding group. Larger founding groups tend

to bring more information and resources to their nascent organizations, leading to more positive organizational outcomes. Simons and Roberts (2007) found this in the context of size and to a lesser extent product quality outcomes in their sample of Israeli wineries. Those commenting on differences between aesthetic and commercial demands of production suggest that the latter may benefit from having more resources on board. With more scale-intensive needs, the resources that come with more founders should be more beneficial for reaching non-aesthetic objectives. Others have noted that greater dynamism and unpredictability characterize the creative demands that underpin the aesthetic elements of production (Lampel et al. 2000). These traits amplify the conflict and coordination costs that are associated with larger founding groups. Taken together, these observations suggest that non-food quality outcomes, relative to food quality outcomes, may benefit from having more individuals as founders.

Fine's (1992) analysis of the chef's role in restaurant production argues that chefs tend to hold the aesthetic ideals most dearly. Therefore, while non-chef founders focus on commercial demands, chef founders tend to tilt the focus of their founding choices toward aesthetic outcomes. Given the defining feature of the chef founder role, founding groups that include chef founders should deliver higher food quality. We account for this possibility by including a pair of indicator variables, one for groups comprised of both chef and non-chef founders and another for groups comprised exclusively of chef founders.

Our analysis begins with all restaurants for which we have founder background information. Matching these restaurants to the *Patrons Pick / Zagat* sample yields 1,721 observations spread across 376 different restaurants. Descriptive statistics and correlations for this sample are found in Table 3. The averages for the food and non-food quality variables are 80.183 and 73.977, respectively. Founding group sizes ranged from one to five individuals, with the average being 1.575. Roughly one-quarter (one-fifth) of the restaurants were founded by mixed groups (groups comprised exclusively of chef founders), leaving just over half founded by all non-chef groups. The typical founding group had non-chef founders with roughly 5.7 years of prior ownership role experience and chef-founders with roughly 2.3 years of prior chef role experience. Finally, note that it was more common to see chef founders with prior

ownership role experience than non-chef founders with prior chef role experience.

### Table 3 about here

Given the way our quality data were collected and the high correlation between the two quality scores ( $\rho=0.716$ ), it is likely that the error terms are correlated across the two quality score equations. Seemingly unrelated regression is an extension of the standard linear regression model which accounts for correlated errors across equations (Zellner 1962). This provides for more efficient estimation of the parameters of interest and allows for tests of cross-equation restrictions.

## Results

Before proceeding, we assessed the prospect of selection bias in the process that generates the *CRDB* data by estimating a logit model that relates the probability of having founder information to the food and non-food quality variables, as well as dummy variables for the different locales, cuisine types and price levels. Removing restaurants founded before 1979, the various editions of *Patrons Pick* and *Zagat* provided a total of 4,177 quality observations for 993 restaurants. The *CRDB* data base provides founder information for 1,723 (or roughly 41 percent) of these observations. The probability of having founder information in the *CRDB* increases with each successive price level. Moreover, the effect of the food quality variable is positive and significant ( $\beta = 0.027$ ;  $p=0.00$ ) while the effect of non-food quality is smaller but still significant ( $\beta = 0.005$ ;  $p=0.037$ ). This propensity for the *CRDB* to over-sample on the two restaurant quality dimensions should be kept in mind when interpreting the following results.

The model reported across the first three columns of Table 4 is a seemingly unrelated regression model with two dependent variables: food quality and non-food quality. Consider first the number of individuals in the founding group. The signs of the two coefficients are in the expected direction – negative for food quality and positive for non-food quality. However, only the difference between the two parameter estimates is statistically significant ( $\text{Chi}^2=8.17$ ,  $p=0.004$ ). A separate test of the sum of the two coefficients returns an insignificant  $\text{Chi}^2$  statistic. Assuming that both elements of quality contribute

similarly to a restaurant's overall success, this suggests that the size of the founding group has no identifiable impact on organizational performance. The only influence is on the observed balance between food quality and the quality of a restaurant's service and décor.

**Table 4 about here**

The next two control variables indicate the composition of the founding group. Moving from all non-chef founders through mixed founding groups to groups with all chef founders, we observe an increasingly positive effect on food quality but a negative and significant effect on non-food quality. The role identification of chef founders seems to bias founding groups toward the food aspects of restaurant quality. These opposing effects raise the question of whether food quality gains are offset by non-food quality losses. A test of whether the sum of these two coefficients is less than zero returns a Chi<sup>2</sup> statistic that is insignificant for mixed founding groups ( $p=0.207$ ), but marginally significant for all chef founder groups ( $p=0.061$ ). All chef founder groups exert an aggregate negative effect on restaurant overall quality (i.e., food quality plus non-food quality). This result confirms a prior finding of Hong and Page (2004). In their assessment of group decision making, they argued that individuals bring internal representations of problems (perspectives) and algorithms used to locate solutions (heuristics). These perspectives and heuristics are influenced by race, geography, age while perspectives are also influenced by experiences and training. Their key finding is that identity-diverse groups can have more conflict and therefore more communication problems: "Problem solvers with diverse perspectives may have trouble understanding solutions identified by other agents."

Turning to our predictions about how different types of pre-founding career experiences affect the two quality outcomes, we first consider the non-chef founders whose roles are focused on the non-aesthetic aspects of production. Consistent with this orientation, neither of the non-chef founder pre-founding experience variables exerts a detectable influence on food quality. On the other hand, prior experience in ownership roles, but not chef roles, has a positive and significant influence on non-food quality. For founders that specialize in dealing with the commercial aspects of restaurant production, role-

consistent pre-founding experience has a positive effect in the expected domain, thus supporting hypothesis H1b. However, there are no corresponding sacrifices emanating from their role-inconsistent pre-founding experience. Thus, the data do not offer support for hypothesis H2b.

The story is different for the chef owners who are oriented toward the aesthetic elements of restaurant production. Their prior experience in chef roles has the predicted positive and significant impact on food quality. At the same time, the accumulation of ownership role experience has a negative and significant impact on food quality outcomes. Pre-founding experience in ownership roles, which forces chefs to directly address the commercial tensions, makes chef founders less willing or less able to achieve higher aesthetic quality in their current chef founder roles. These two results offer support for hypotheses H1a and H2a. We also question whether this adverse effect is associated with quality outcomes that are beneficial overall. Chef founders with both types of prior role experiences may be able to recognize and address inevitable compromises more effectively. This means that they might sacrifice food quality but compensate by contributing more positively to non-food quality outcomes. Given this expectation, it is instructive to note that the compromises in food quality that come with previous ownership role experience are not offset by increases in non-food quality. In fact, the coefficient on the chef founder ownership role experience variable is also negative, albeit insignificant. It seems fair to conclude that role-inconsistent prior experience of chef founders has an overall deleterious effect on restaurant quality. In respect of hypothesis H2b note that both coefficients on the role inconsistent prior experience of non-chef founders are also negative, although parameter estimate approaches statistical significance.

Our final prediction relates to the relative magnitude of the role-consistent and role-inconsistent pre-founding experience effects across the food and non-food domains. Here, two separate tests reveal that the positive impact of role-consistent experiences for chef founders is significantly more pronounced than the corresponding effect of role-consistent experience for non-chef founders. Similarly, the negative impact of role-inconsistent experience for chef founders is significantly more pronounced than the negative effect of role-inconsistent for non-chef founders:

**Role-Consistent Experience:** Chef founders' chef role experience effect on food quality ( $\beta = 0.233$ ) minus non-chef founders' ownership role experience effect on non-food quality ( $\beta = 0.027$ ) --  $\text{Chi}^2 = 20.10$  ( $p=0.000$ )

**Role-Inconsistent Experience:** Chef founders' ownership role experience effect on food quality ( $\beta = -0.255$ ) minus non-chef founders' chef role experience effect on non-food quality ( $\beta = -0.018$ ) --  $\text{Chi}^2 = 5.94$  ( $p=0.015$ )

These comparisons confirm that the positive and negative effects of prior career experience are much more consequential for founder roles (i.e., chef founders) that relate most directly to the core aesthetic elements of these nascent organizations.

The final model reported in Table 4 adds two additional variables that capture the pre-founding experience of chefs that are hired at founding (i.e., those that are not founders), and the extent to which chef founders are simultaneously working at other restaurants at the time of founding. In the restaurant industry, founding groups can be populated by non-chef founders who hire chefs or they can include the consolidated role of chef founder. By overlooking the experience that hired chefs bring at founding, our founder experience effects might be misstated. However, we see that the amount of chef role experience that a hired chef brings at founding has no discernable effect on food or non-food quality. This cannot be attributed to a relative lack of experience among the hired chefs at founding. In the sample used to estimate the hired chef effect, the average years of chef role experience was 2.95 for the chef founders and 2.87 for the hired chefs. Rather, the null results offer support to a claim made by Caves (2003, pg. 73) in the context of cultural industries: "If the dealer hires the artist to paint what the dealer thinks will sell, creative autonomy is clearly gone." When a chef is hired, she is a less integral part of the creative founding process and thus her pre-founding chef role experience exerts little effect on restaurant quality outcomes.

It is also possible that more experienced chefs are more likely to be working at multiple restaurants at the time of founding. Thus, the positive effects of role-consistent experience might simply

be an artifact of reputation spillovers across multiple successful establishments. To rule out this possibility, we included a variable that counts the number of other active restaurants at which chef founders were cooking at the time of founding. We see that this variable has a positive and significant impact on food quality, but no impact on non-food quality. However, we also see that the coefficients on the two chef founder experience variables are roughly the same across the first and second models in Table 4.

In Table 5, we decompose the overall sample into three groups: all non-chef founder groups, mixed groups and all chef founder groups. This exercise allows us to examine the effects of role-consistent and role inconsistent career experience within founding groups whose role compositions are the same. It also allows us to examine whether the results that we reported in Table 4 are robust across founding groups with different compositions. Note first that the homogeneous founding groups (i.e., all chef founders or all non-chef founders) return results that are virtually indistinguishable from those reported in Table 4. However, the mixed groups offer a pair of interesting contrasts. First, the magnitudes of the positive and negative effects of role-consistent and role-inconsistent chef founder experience on food quality are much greater among the mixed founding groups. When chef founders are working on groups that include non-chef founders, they are more specifically responsible for, and attuned to back-of-restaurant issues. As such, the benefit of having role-consistent experience and the cost of having role-inconsistent experience are more dramatic. Second, the positive effect of prior ownership experience among non-chef founder on non-food quality is not evident among the mixed founding groups.

#### **Table 5 about here**

We conclude the analysis by addressing another selection issue that might have some bearing on our results. The *CRDB* data provide founder background information for 652 restaurants that were active at some point during the 1990 to 2006 period, making them candidates for inclusion in one of the various *Patrons Pick* or *Zagat* guides. Obviously, not all Toronto-area restaurants can receive coverage in every year and critics and enthusiasts serve as market gatekeepers (Hirsch 1972). Thus, there may be concerns

related to selection bias if the founder background variables also influence the probability of being included in the final sample. To address this concern, we estimate a separate Heckman selection model for each of the food and non-food quality variables (see Appendix A). In the first stage of the two-stage estimation process, we model the probability of being covered in *Patrons Pick* or *Zagat* as a function of the four founder background variables as well as restaurant age, founding group size and composition and the fixed year and restaurant locale dummy variables. To identify the selection equation, we include a set of indicator variables indicating each restaurant's cuisine type.

Restaurant age and the number of founders each exert significant positive effects in the likelihood of coverage. The two chef founder background variables have selection effects that mirror their effects in the food and non-food quality equations. For chef founders, prior experiences in chef roles increase the likelihood of coverage while previous ownership experiences have the opposite effect. The non-chef founder background variables have much weaker effects in the selection equation. With this in mind, the coefficient on the Mills ratio is not significant in either of the quality equations. As such, all of the reported coefficients are consistent across the seemingly unrelated regression model reported in Table 4 and the Heckman selection models.

## **Discussion and Conclusions**

This study extends Baker and Faulkner's (1991) role-as-resource thesis to account for the career processes that shape the identities of founding role claimants. When career histories can span role-consistent and role-inconsistent experiences, it is important to appreciate how founding role claimants become more or less effective occupants of their founding roles. Borrowing from recent research on organizational codes and identities (Polos et al. 2002, Hannan et al. 2007) and recognizing that aesthetic roles and ownership roles represent oppositional category pairs (Rao et al. 2005), we predict that the role legitimacy and therefore efficacy will be increasing in the level of prior role-consistent experience, but decreasing in the level of role-inconsistent experience. Moreover, given the central status of the aesthetic organizational features within cultural industries, we predict that the positive and negative effects of prior role

experience will be more salient on the aesthetic side of the aesthetic-commercial duality.

Our analysis of Toronto restaurants made several observations about how founder roles and their concomitant pre-founding role experiences influence the balance between aesthetic (i.e., food quality) and non-aesthetic (i.e., service and décor quality) outcomes. We first noted that when founding groups are dominated by chef founders, the ensuing role bias toward aesthetic outcomes leads to higher food quality but lower non-food quality outcomes. Moreover, the parameter estimates in Table 4 suggest that gains on the former dimension tend to be smaller than losses on the latter. This suggests that when founding groups are comprised of individuals occupying aesthetic roles, young organizations tilt away from an optimal balance between the aesthetic and the commercial.

We further probed the implications of founding groups by examining the pre-founding role experiences of individuals claiming chef and non-chef founder roles. Some of these results conform to fairly straightforward expectations. Non-chef founders with ownership role experiences tend to produce better non-food quality outcomes. Chef founders, on the other hand, are advantaged by their pre-founding chef role experiences when it comes to enhancing food quality. The more interesting results are found in the documented tensions faced by chef founders who have also accrued pre-founding ownership role experience. As predicted, food quality decreases significantly with increments of this role-inconsistent pre-founding experience. This is consistent with related observations about the tensions faced by holders of aesthetic ideals when faced with managing the commercial aspects of competition. In order to attain success on the latter dimension, these individuals learn to make concessions. We propose that with each passing year of internalizing these concessions, individuals become less able or less willing to excel on a restaurant's aesthetic (i.e., food quality) dimensions.

Our theorizing and empirical findings have interesting implications for cultural analyses of organizations because they take seriously and then advance the idea that role occupants are not universally successful when it comes to having role-based claims accepted. Rather, the development of the requisite skills and identities that make these claims more successful depends in part on a career history that is both thick and pure in its accumulation of role-based experiences. This is especially so on

the more uncertain aesthetic side of cultural production, where indicators of requisite identity and evidence of requisite identity are more problematic.

Our findings also speak directly to the link between the career histories of founders and organizational outcomes. Recent research into the organizational ramifications of pre-founding employment experiences suggests that they have implications for the initial decisions that shape an organization's evolution and for the resources that propel an organization forward along its chosen trajectory. Time spent working in related organizations prior to founding educates and imprints founders. It allows organizations to more effectively meet the demands of market-based competition by endowing founders with relevant knowledge and resources (Freeman 1986). A large volume of empirical research has examined such implications in a range of industries including automobiles (Carroll et al. 1996; Klepper 2002), disk drives (Agarwal et al. 2004; Khessina and Carroll 2008), lasers (Klepper and Sleeper 2005), legal services (Phillips 2002, 2005) and wines (Roberts et al. 2007; Simons and Roberts 2007). Following this research, founding groups should benefit from pre-founding employment experiences that augment their ability to meet *both* aesthetic *and* commercial demands. Previous experience in aesthetic roles should enable founders to produce offerings with greater aesthetic appeal. Previous experiences in ownership and other non-aesthetic roles give founders heightened abilities to address the nexus between aesthetic outputs and the consumers that will ultimately consume them. If we had aggregated the four career experience variables into a single variable and had re-estimated the first model reported in Table 4, we would have concluded that pre-founding experience has no discernable effect on food quality ( $\beta = -0.001$ ,  $p=0.887$ ) but a positive and significant effect on non-food quality ( $\beta = 0.034$ ,  $p=0.000$ ).

These straightforward aggregated effects mask the more nuanced pathway connecting the prior experiences of founders to the quality outcomes that matter for organizational effectiveness. Experiences in different roles can have different implications for subsequent entrepreneurial activity. For example, Dobrev and Barnett (2005) showed that being an organization member versus a founder of a prior employer had different implications for the subsequent rate of entrepreneurship as that employer grew and

aged. In our case, accounting for the different founding roles that span the aesthetic and commercial domains, and then organizing pre-founding career experiences into those that are role-consistent versus inconsistent, we see that the linkages between pre-founding experiences and organizational outcomes are both more nuanced, and indeed more sensible.

This more nuanced treatment of pre-founding experience allows us to see how the enactment of founding roles might become a liability, as well as a resource. While previous chef role experience turns an individual into a more valuable restaurant founder (as evidenced by the positive effects on both food and non-food quality), previous ownership experience has a subsequent negative impact on her effectiveness in chef founder roles. One avenue is to further scrutinize why aesthetic and commercial roles become consolidated in the face of this future devaluation, i.e. why do chefs adventure outside the kitchen to occupy ownership roles, and why do non-chef founders ever tread into the kitchen? Interestingly, this outcome may stem from two diverging processes, an authentic quest on the part of chefs for control over the current venture versus the subsequent implications associated with learning to manage aesthetic-commercial tensions. In future iterations of this study we hope to untangle the mechanisms behind the flux of roles which are a central aspect of cultural production. A second implication is more specific. Much has been made about the role of founders – above and beyond founding employees – in making the decisions that imprint young organizations. By comparing the implications of prior career experiences (in both chef and non-chef roles) of chef founders versus chefs hired by founders, we can isolate the implications of being involved in founding choices. After observing such differences, it will be interesting to enter the field of restaurant production to further elaborate the implications of having skilled employees or artisans occupying these overlapping but differentiated organizational roles.

Of course, we are reticent to make concrete conclusions about the implications of pre-founding experiences on organizational performance without examining how these variables influence a restaurant's overall competitive success, as indicated by greater longevity. In this paper, we simply (and implicitly) assume that restaurant success correlates with an organization's ability to fare well on both

food quality and non-food quality dimensions. We therefore examine the extent to which variables such as founding group role composition and chef founders' pre-founding ownership experiences impact both the balance of quality outcomes and the extent to which sacrifices on one quality outcome are more than compensated by improvements on the other. Future research should integrate our demand-side evaluation of restaurant quality with an appreciation for the cost side of restaurant production in order to determine how founding group composition and career experiences influence a new restaurant's ability to set prices and cope with customers on its output boundary; control of workers, working conditions and labor costs; and control material costs on the input boundary of the organization (Fine 1996).

At the same time, our analysis would benefit from a more detailed classification of the restaurant roles that comprise an individual's pre-founding experience. We might gain additional leverage by examining the various job titles reported in the *CRDB* more carefully. For example, it will be interesting to see whether head or executive chef role experiences have different implications than do jobs in more subordinate cooking roles like sous chef or apprentice/commis. It would be similarly interesting to re-examine our chef owners' pre-founding experiences in ownership roles. Some of these experiences were in chef owner roles while others were in pure ownership roles. One might expect that the consequences of each type of experience will have different implications for the extent of sacrifices and trade-offs in subsequent chef founder roles.

## References

- Abbott, A. 1981. Status and status strain in the professions. *American Journal of Sociology* **86** 819-835.
- Agarwal, R., R. Echambadi, A.M. Franco, M.B. Sarkar. 2004. Knowledge transfer through inheritance: Spinout generation, development, and survival. *Academy of Management Journal* **47** 501-522.
- Baker, W.E., R.R. Faulkner. 1991. Role as resource in the Hollywood film industry. *American Journal of Sociology* **97** 279-309.
- Barnett, W.P., G.R. Carroll. 1995. Modeling internal organizational change. *Annual Review of Sociology* **21** 217-36.
- Baron, J.N. 2004. Employing identities in organizational ecology. *Industrial and Corporate Change* **13** 3-32.
- Baron, J.N., M.T. Hannan, M.D. Burton. 1999. Building the iron case: Determinants of managerial intensity in the early years of organizations. *American Sociological Review* **64** 527-547.
- Bielby, W.T., D.D. Bielby. 1994. "All hits are flukes": Institutionalized decision making and the rhetoric of network prime-time program development. *American Journal of Sociology* **99** 1287-1313.
- Bielby, W.T., D.D. Bielby. 1999. Organizational mediation of project-based labor markets: Talent agencies and the careers of screenwriters. *American Sociological Review* **64** 64-85.
- Boeker, W. 1988. Organizational origins: entrepreneurial and environmental imprinting in founding. G.R. Carroll, ed. *Ecological Models of Organizations*. Ballinger, Cambridge, MA, 33-51.
- Boeker, W. 1989. Strategic change: The effects of founding and history. *Academy of Management Journal* **32** 489-515.
- Callero, P.L. 1994. From role-playing to role-using: Understanding role as resource. *Social Psychology Quarterly* **57** 228-243.
- Carroll, G.R., L.S. Bigelow, M.-D.L. Seidel, L.B. Tsai. 1996. The fates of de novo and de alio producers in the American automobile industry 1885-1981. *Strategic Management Journal* **17** 117-137.
- Carroll, G.R., A. Swaminathan. 2000. Why the microbrewery movement? Organizational dynamics of resource partitioning in the US brewing industry. *American Journal of Sociology* **106** 715-762.
- Caves, R.E. 2003. Contracts between art and commerce. *Journal of Economic Perspectives* **17** 73-83.
- Chossat, V., O. Gergaud. 2003. Expert opinion and gastronomy: The recipe for success. *Journal of Cultural Economics* **27** 127-141.
- Douglas, M. 1966. *Purity and Danger*. London: Routledge.
- Dobrev, S.D., W.P. Barnett. 2005. Organizational roles and transition to entrepreneurship. *Academy of Management Journal* **48** 433-449.
- Faulkner, R.R., A.B. Anderson. 1987. Short-term projects and emergent careers: Evidence from Hollywood. *American Journal of Sociology* **92** 879-909.

- Fine, G.A. 1992. The culture of production: Aesthetic choices and constraints in culinary work. *American Journal of Sociology* **97** 1268-1294.
- Fine, G.A. 1996. *Kitchens: The Culture of Restaurant Work*. University of California Press, Berkeley.
- Freeman, J. 1986. Entrepreneurs as organizational products: Semiconductor firms and venture capital firms. *Advances in the Study of Entrepreneurship, Innovation and Economic Growth* **1** 33-52.
- Freeman, J., M.T. Hannan. 1983. Niche width and the dynamics of organizational populations. *American Journal of Sociology* **88** 1116-1145.
- Giuffre, K. 1999. Sandpiles of opportunity: Success in the art world. *Social Forces* **77** 815-832.
- Goode, W.J. 1960. A theory of role strain. *American Sociological Review* **25** 483-496.
- Gulati, R., M. Higgins. 2006. Stacking the deck: The effect of upper echelon affiliations for entrepreneurial firms. *Strategic Management Journal* **27** 1-26.
- Hannan, M.T., J.N. Baron, G. Hsu, Ö. Koçak. 2006. Organizational identities and the hazard of change. *Industrial and Corporate Change* **15** 755-784.
- Hannan, M.T., J. Freeman. 1984. Structural inertia and organizational change. *American Sociological Review* **49** 149-164.
- Hirsch, P.M. 1972. Processing fads and fashions: An organization-set analysis of cultural industry systems. *American Journal of Sociology* **77** 639-659.
- Holbrook, M.B. 1999. Popular appeal versus expert judgments of motion pictures. *Journal of Consumer Research* **26** 144-155.
- Hong, L., S.E. Page. 2004. Groups of diverse problem solvers can outperform groups of high-ability problem solvers. *Proceedings of the National Academy of Sciences* **101** 16385-16389.
- Hsu, G., M.T. Hannan, Ö. Koçak. 2007. Multiple category memberships in markets: A formal theory and two empirical tests *Working Paper*.
- Khessina, O.M., G.R. Carroll. 2008. Product demography of de novo and de alio firms in the optical disk drive industry, 1983–1999. *Organization Science* **19** 25-38.
- Klepper, S. 2002. The capabilities of new firms and the evolution of the US automobile industry. *Industrial and Corporate Change* **11** 645-666.
- Klepper, S., S. Sleeper. 2005. Entry by Spinoffs. *Management Science* **51** 1291-1306.
- Lampel, J., T. Lant, J. Shamsie. 2000. Balancing act: Learning from organizing practices in cultural industries. *Organization Science* **11** 263-260.
- Phillips, D.J. 2002. A genealogical approach to life chances: The parent-progeny transfer among Silicon Valley law firms, 1946-1996. *Administrative Science Quarterly* **47** 474-506.
- Phillips, D.J. 2005. Organizational genealogies and the persistence of gender inequality: The case of Silicon Valley law firms. *Administrative Science Quarterly* **50** 440-472.

- Polos, L., M.T. Hannan, G.R. Carroll. 2002. Foundations of a theory of social forms. *Industrial and Corporate Change* **11** 85-115.
- Rao, H., P. Monin, R. Durand. 2005. Border crossing: Bricolage and the erosion of categorical boundaries in French gastronomy. *American Sociological Review* **70** 968-991.
- Roberts, P.W., S. Klepper, S. Hayward. 2007. Founder Backgrounds and the Evolution of Firm Size and Scope *Working Paper*.
- Ruhlman, M. 2006. *The Reach of a Chef*. Viking, New York, NY.
- Simons, T., P.W. Roberts. 2007. Local and Non-Local Pre-Founding Experience and New Organizational Form Penetration: The Case of the Israeli Wine Industry.
- Zellner, A. 1962. An efficient method of estimating seemingly unrelated regressions and tests for aggregation bias. *Journal of the American Statistical Association* **57** 348-368.
- Zuckerman, E.W. 1999. The categorical imperative: Securities analysts and the illegitimacy discount. *American Journal of Sociology* **104** 1398-1438.
- Zuckerman, E.W., T.-Y. Kim, K. Ukanwa, J. von Rittmann. 2003. Robust identities or nonentities? Typecasting in the feature-film labor market. *American Journal of Sociology* **108** 1018-1074.

**Table 1. Founders' Roles and Pre-Founding Career Experiences**  
*(source: Chef and Restaurant Database)*

<b>Nectar (2003)</b>		
	Pierre Jutras	Non-Chef Founder
	Simon Benstead	Non-Chef Founder
	<i>David Adjey</i>	<i>Chef-Founder</i>
<i>David Adjey</i>		
2001-2003	Windsor Arms Hotel	Executive Chef
2001-2001	Far Niente	Executive Chef
2000-2001	Rihga Royal (New York)	Executive Chef
1997-1999	San Ysidro Ranch (Montecito)	Executive Chef
1997-1997	Dan Aykroyd Family	Personal Chef
1995-1997	Estates of Sunnybrook	Executive Chef
1993-1995	Left Bank	Executive Chef
1991-1993	Vaughan Estate	Executive Sous Chef
1990-1991	China Blues	Sous Chef
<b>Ki (2005)</b>		
	<i>David Aisenstat</i>	<i>Non-Chef Founder</i>
<i>David Aisenstat</i>		
2000-	Gotham Steakhouse (Vancouver)	Owner/Proprietor
1998-	Hy's (Whistler)	Owner/Proprietor
1997-	The Keg Steakhouse & Bar	Owner/Proprietor
1988-	Hy's	Owner/Proprietor
<b>Boba (1994)</b>		
	Barbara Gordon	<i>Chef-Founder</i>
	<i>Bob Bermann</i>	<i>Chef-Founder</i>
<i>Bob Bermann</i>		
1994-1994	Oliver's Bistro	Consulting Chef
1990-1993	Avocado Club	Co-owner/Chef
1986-1990	Beaujolais	Co-owner/Chef

**Table 2. Job Titles in Chef and Restaurant Database**

---

<b>Chef Roles</b>	Chef or Executive Chef Sous Chef Executive Chef Pastry Chef Chef Apprentice/Commis Chef de Partie Cook Executive Sous Chef Saucier Restaurant Chef Chef de Cuisine Consulting Chef Corporate Executive Chef Chef Tournant Garde Manger First Cook Station Chef Tournant
<b>Ownership Roles</b>	Co-owner or Partner Owner/Proprietor

---

**Table 3. Descriptive Statistics and Pairwise Correlations (N=1,721)**

Variable	Mean	S.D.	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Food Quality	80.183	9.360									
2. Non-Food Quality	73.977	10.144	0.716								
3. Ln (Restaurant Age)	2.068	.613	-0.037	-0.033							
4. Count of Founders	1.575	.688	0.029	0.071	-0.021						
5. Mixed Founding Group	.227	.419	0.031	0.009	0.040	0.576					
6. All Chef Founders	.204	.403	0.002	-0.145	0.015	-0.375	-0.385				
7. Non-Chef Founders -- Ownership Role Experience	5.698	14.192	0.073	0.153	-0.108	0.041	-0.077	-0.242			
8. Non-Chef Founders -- Chef Role Experience	.310	2.043	0.007	0.021	-0.046	0.087	-0.006	-0.096	0.105		
9. Chef Founders -- Ownership Role Experience	1.281	3.860	-0.039	-0.052	-0.016	-0.023	0.067	0.317	-0.080	0.009	
10. Chef Founders -- Chef Role Experience	2.282	5.348	0.135	0.068	-0.058	0.073	0.212	0.283	-0.087	-0.070	0.680

**Table 4. Seemingly Unrelated Regression Results<sup>a</sup>**

	Food Quality	Non-Food Quality	Difference Significant	Food Quality	Non-Food Quality
	( <i>S.U.R.</i> )	( <i>S.U.R.</i> )	( <i>Chi</i> <sup>2</sup> <i>test</i> )	( <i>Hired Chef, Other Gigs</i> )	( <i>Hired Chef, Other Gigs</i> )
In Zagat	-11.289*** (0.947)	-16.224*** (0.917)		-10.726*** (1.057)	-17.094*** (1.046)
In Patrons Pick & Zagat	6.986*** (0.805)	8.558*** (0.779)		7.030*** (0.904)	9.361*** (0.895)
Ln (Restaurant Age)	-1.196*** (0.267)	-1.503*** (0.258)		-0.805*** (0.311)	-0.724** (0.307)
Price=2	-0.696 (0.998)	4.179*** (0.966)		-1.247 (1.144)	4.636*** (1.132)
Price=3	4.458*** (0.979)	8.922*** (0.948)		3.702*** (1.114)	9.173*** (1.103)
Price=4	9.227*** (0.997)	13.892*** (0.965)		8.392*** (1.138)	13.813*** (1.126)
Count of Founders	-0.427 (0.286)	0.408 (0.277)	8.17**	-0.388 (0.312)	0.269 (0.309)
Mixed Founding Group	0.661 (0.497)	-1.717*** (0.481)		0.211 (0.530)	-1.774*** (0.525)
All Chef Founders	1.120** (0.472)	-2.688*** (0.457)	64.53***	0.980* (0.525)	-2.772*** (0.520)
Non-Chef Founders -- Ownership Role Experience	-0.006 (0.012)	0.027** (0.011)	7.65***	0.008 (0.013)	0.033*** (0.013)
Non-Chef Founders -- Chef Role Experience	-0.074 (0.079)	-0.018 (0.076)	0.48	-0.142 (0.092)	-0.160* (0.091)
Chef Founders -- Ownership Role Experience	-0.255*** (0.058)	-0.091 (0.056)	7.62***	-0.308*** (0.059)	-0.092 (0.058)
Chef Founders -- Chef Role Experience	0.233*** (0.044)	0.185*** (0.043)	1.11	0.254*** (0.044)	0.208*** (0.044)
Hired Chef -- Chef Role Experience	-	-		-0.032 (0.030)	-0.030 (0.030)
Chef Founders -- Other Gigs	-	-		0.760** (0.309)	-0.280 (0.306)
N	1,721	1,721		1,329	1,329
“R-Squared”	0.529	0.624		0.521	0.635

\*\*\* p<0.01; \*\* p<0.05; \* p<0.10

<sup>a</sup> Models include controls for fixed year and fixed locale effects.

**Table 5. Results Broken Down by Founding Group Composition<sup>a</sup>**

	Food Quality	Non-Food Quality	Food Quality	Non-Food Quality	Food Quality	Non-Food Quality
	<i>(All Chefs)</i>	<i>(All Chefs)</i>	<i>(Mixed)</i>	<i>(Mixed)</i>	<i>(All Non- Chefs)</i>	<i>(All Non- Chefs)</i>
In Zagat	-9.853 <sup>***</sup> (1.773)	-20.059 <sup>***</sup> (2.182)	-9.609 <sup>***</sup> (1.939)	-16.512 <sup>***</sup> (1.797)	-13.297 <sup>***</sup> (1.266)	-14.267 <sup>***</sup> (1.185)
In Patrons Pick & Zagat	7.245 <sup>***</sup> (1.463)	11.996 <sup>***</sup> (1.800)	5.015 <sup>***</sup> (1.618)	8.438 <sup>***</sup> (1.500)	8.109 <sup>***</sup> (1.087)	7.247 <sup>***</sup> (1.017)
Ln (Restaurant Age)	-0.716 (0.523)	-0.447 (0.644)	-2.174 <sup>***</sup> (0.568)	-1.647 <sup>***</sup> (0.526)	-1.151 <sup>***</sup> (0.347)	-1.649 <sup>***</sup> (0.325)
Price=2	4.466 <sup>*</sup> (2.525)	5.590 <sup>*</sup> (3.107)	0.423 (2.605)	9.004 <sup>***</sup> (2.414)	-1.445 (1.172)	2.783 <sup>**</sup> (1.097)
Price=3	9.078 <sup>***</sup> (2.518)	9.509 <sup>***</sup> (3.098)	6.633 <sup>**</sup> (2.610)	12.941 <sup>***</sup> (2.419)	3.853 <sup>***</sup> (1.149)	8.113 <sup>***</sup> (1.075)
Price=4	10.714 <sup>***</sup> (2.559)	8.837 <sup>***</sup> (3.149)	10.099 <sup>***</sup> (2.705)	19.081 <sup>***</sup> (2.507)	9.127 <sup>***</sup> (1.166)	13.906 <sup>***</sup> (1.091)
Count of Founders	0.069 (0.674)	-1.409 (0.829)	0.693 (0.591)	0.425 (0.547)	-0.983 <sup>***</sup> (0.365)	0.690 <sup>**</sup> (0.341)
Non-Chef Founders -- Ownership Role Experience	-	-	0.053 (0.040)	-0.059 (0.037)	-0.015 (0.012)	0.025 <sup>**</sup> (0.012)
Non-Chef Founders -- Chef Role Experience	-	-	-0.159 (0.174)	-0.032 (0.161)	-0.061 (0.088)	-0.049 (0.083)
Chef Founders -- Ownership Role Experience	-0.177 <sup>***</sup> (0.063)	-0.088 (0.078)	-0.479 <sup>***</sup> (0.100)	-0.102 (0.092)	-	-
Chef Founders -- Chef Role Experience	0.268 <sup>***</sup> (0.057)	0.257 <sup>***</sup> (0.070)	0.334 <sup>***</sup> (0.064)	0.240 <sup>***</sup> (0.060)	-	-
N	351	351	391	391	979	979
“R-Squared”	0.581	0.619	0.604	0.698	0.569	0.647

\*\*\* p<0.01; \*\* p<0.05; \* p<0.10

## Appendix A. Heckman Selection Models<sup>a</sup>

	Food Quality	Non-Food Quality	Selection Equation
In Zagat	-11.366 <sup>***</sup> (0.952)	-16.291 <sup>***</sup> (0.921)	-
In Patrons Pick & Zagat	7.031 <sup>***</sup> (0.806)	8.597 <sup>***</sup> (0.780)	-
Ln (Restaurant Age)	-0.796 <sup>**</sup> (0.404)	-1.155 <sup>**</sup> (0.390)	0.397 <sup>***</sup> (0.032)
Price=2	-0.777 (1.001)	4.108 <sup>***</sup> (0.969)	-
Price=3	4.375 <sup>***</sup> (0.983)	8.850 <sup>***</sup> (0.951)	-
Price=4	9.083 <sup>***</sup> (1.005)	13.767 <sup>***</sup> (0.972)	-
Count of Founders	-0.334 (0.297)	0.489 <sup>*</sup> (0.287)	0.145 <sup>***</sup> (0.046)
Mixed Founding Group	0.697 (0.503)	-1.686 <sup>***</sup> (0.485)	0.010 (0.081)
All Chef-Founders	1.107 <sup>**</sup> (0.481)	-2.768 <sup>***</sup> (0.465)	-0.084 (0.071)
Non-Chef Founders -- Ownership Role Experience	-0.004 (0.012)	0.029 <sup>**</sup> (0.012)	0.003 (0.002)
Non-Chef Founders -- Chef Role Experience	-0.067 (0.079)	-0.012 (0.077)	0.024 <sup>*</sup> (0.012)
Chef Founders -- Ownership Role Experience	-0.285 <sup>***</sup> (0.062)	-0.117 <sup>*</sup> (0.060)	-0.029 <sup>***</sup> (0.007)
Chef Founders -- Chef Role Experience	0.263 <sup>***</sup> (0.050)	0.211 <sup>***</sup> (0.049)	0.034 <sup>***</sup> (0.007)
Mills Ratio	1.674 (1.265)	1.456 (1.222)	-
N	1,721	1,721	1,721
Censored N	1,520	1,520	

\*\*\* p<0.01; \*\* p<0.05; \* p<0.10

<sup>a</sup> Models include controls for fixed year and fixed locale effects. The selection equation also includes fixed effects for eighteen different cuisine types