The Effect of Alcoholic Beverage License Population Quotas on Restaurant Availability, Restaurant Quality, and Restaurant Longevity: the Case of New Jersey

In 18 states of the US alcoholic beverage licenses for on premise consumption in restaurants, bars, or taverns are limited by population formulas. In this paper I use data from Google Maps to examine how population restricted on premise alcoholic beverage licensing in New Jersey impacts restaurant availability, restaurant quality, and restaurant longevity. I do this, in part, by comparing restaurant data from Bergen County, New Jersey, with restaurant data in quota free Westchester County, New York. I find no evidence that New Jersey’s alcohol control policies result in fewer full service restaurants or restaurants of lower quality in Bergen as compared to laissez-faire licensing Westchester. This is because New Jersey’s stringent population quotas are complemented by a liberal BYOB policy for restaurants without alcoholic beverage licenses and these BYOB restaurants fill gaps in supply. However, the substantial market values for on premise licenses in the secondary market in New Jersey indicate that BYOB restaurants are not perfect substitutes for on premise alcoholic beverage establishments and, thus, it is second-best to have BYOB restaurants provide a large proportion of full service restaurant meals in many New Jersey municipalities. Top-down one-size-fits-all population licensing formulas will never be a good fit across municipalities with different restaurant markets as is demonstrated in this and previous research. And the balance between negative and positive alcohol consumption externalities is probably best determined at the local level and regulated through alcohol license fees, zoning, and policing.

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In 18 states of the US, alcoholic beverage licenses for on premise consumption in restaurants, bars, or taverns are limited by population formulas. The formulas are hard to summarize for they differ not only in their numerical values but in the geographic units to which they apply (municipality, county, or state) the type of license (beer, wine, spirits, beer and wine only, or beer only¹) and the type of establishment (ranging from a bar or tavern with limited seating and a limited menu up to large restaurants with full menus). In some states local governments must provide initial approval for an on premise alcoholic beverage license and in other states local governments cannot prevent the formation of an on premise alcoholic beverage establishment in an appropriately zoned area that meets state requirements, such as the minimal distance from schools or houses of worship. Also, in some states with population restrictions on licenses, food sales in excess of some percentage of total revenue and/or restaurants with a number of seats in excess of a specified level are exempt from the population quotas. Finally, alcoholic beverage license population formulas were legislated over a wide range of years after prohibition was repealed in the US in 1933 and existing alcoholic beverage establishments were always grandfathered in.

Probably the least restrictive of the population formula states is Wisconsin, where their “class B” licenses (beer, wine, spirits) are restricted to one per 500 population in a municipality, among other requirements, with no population quotas on other licenses.² Probably the most restrictive of the population formula states is Utah, where their “bar” (beer, wine, spirits) licenses are restricted to one per 7,850 population in the state.³ In this paper I examine how population restricted on premise licensing in New Jersey impacts restaurant availability, restaurant quality, and restaurant longevity. New Jersey may have the most restrictive population formula licensing environment after Utah, with one on premise license for beer, wine, and spirits allowed for every 3000 population in a
municipality. Furthermore, New Jersey, unlike most other states, does not have beer and wine licenses or beer or wine only licenses for on premise establishments. In New Jersey you serve the full Monty or nothing at all. In this research I compare table service restaurants in Bergen County, New Jersey, with and without on premise alcoholic beverage licenses, and I compare these table service restaurants with table service restaurants in laissez-faire on premise licensing Westchester County, New York. These are not neat natural experiments, however. New Jersey has the most liberal BYOB (bring your own booze) law in the nation; customers can bring their own beer and wine to a restaurant without a liquor license at the discretion of the owner and state law prohibits a corkage fee. An indicator of the acceptance of BYOB restaurants in New Jersey is that on one recent list of the top 30 restaurants in New Jersey, 10 were BYOB. Also, seven of the 22 three and four dollar cost category restaurants in Bergen County, New Jersey in 2019 were BYOB, to be presented below.

The on premise alcohol beverage licensing population restrictions in New Jersey have been criticized for reducing the number of restaurants and bars serving alcoholic beverages and, thus, dampening nightlife energy in downtown areas. A less robust downtown nightlife is assumed to negatively impact commercial and residential development in the town centers. This represents a sea change in the philosophy behind the regulation of on premise liquor licenses, from concern over the negative externalities of excess consumption to support for alcohol consumption’s positive impact on social interaction and, hopefully, community vibrancy. However, New Jersey’s alcoholic beverage regulations do not necessarily translate into a less vibrant restaurant culture. Not only could the restricted number of New Jersey licensed restaurants be larger to accommodate demand, but it is also possible that by reducing the out-of-pocket costs of beer and wine (and probably spirits) consumed with restaurant meals, the New Jersey state regulations could actually increase the number of restaurant customers as compared to an environment with no population license quotas and no BYOB.
On premise alcoholic beverage consumption licenses are valuable in New Jersey, even in the liberal BYOB environment. These licenses can be sold at market value for use within the municipality in which they are licensed. The mean and median values of 51 asking prices at one business website for the resale of New Jersey on premise alcoholic beverage consumption licenses in January, 2020, was $325,000 and $300,000 and ranged from $50,000 to $1.1 million. These high values are consistent with the arguments of the “pro-development” advocates that there is excess demand for restaurant meals complemented by on premise alcoholic beverage service in many municipalities in New Jersey. The value of licenses are generally higher in suburban and ex-urban municipalities that have experienced population growth since 1947, when population formula license regulation began. New Jersey municipalities closer to New York City and Philadelphia generally have lower license values because they had a relatively large number of licenses prior to 1947, and have experienced population losses, or at best have held even, since then. Meanwhile the state population increase from 4.8 million in 1950 to 8.9 million today has occurred outside the inner suburban rings of New York and Philadelphia of 1947. The on premise alcoholic beverage consumption license population ratio was set at one per 1000 population in each municipality in 1947. This population ratio was tightened in 1960 and again in 1969, when the current 1/3000 ratio was signed into law. In each legislative instance, license holders in municipalities with population ratios in excess of the new formula were grandfathered in, although they are counted in establishing a municipality’s population ratio when determining eligibility for new licenses.

Restaurant availability, restaurant quality, and restaurant longevity in Bergen County, New Jersey, and Westchester County, New York.

In this section, restaurant availability, restaurant quality, and restaurant longevity in Bergen County, New Jersey, and Westchester County, New York, are compared. In Westchester County, as in the rest of New York State, the number of alcoholic beverage consumption licenses in a municipality are not restricted by population formulas. Furthermore, the New York State alcoholic beverage law preempts any local law that
attempts to regulate the sale of alcoholic beverages. Bars, taverns, and restaurants serving liquor are free to open in New York State if they are located in appropriately zoned areas. The only significant State government restriction on their location is the “200 foot rule,” which states that establishments cannot be located within 200 feet of buildings used exclusively for schools, churches, synagogues, or other places of worship. Data from Google maps were used to compile restaurant data from Bergen and Westchester counties. Google map restaurant data in this application were found to be more complete, more up-to-date (particularly with respect to restaurant closings), and with more reviews than similar data from Yelp or Trip Advisor.

The geographic centers of Bergen and Westchester County are 24 and 27 miles, respectively, from the Empire State building in midtown Manhattan. The socioeconomic and demographic characteristics of the two counties are strikingly similar. Bergen County’s population was 934,000 in 2018 and Westchester’s was 968,000. Median family income in 2016 was $112,000 in Bergen and $114,000 in Westchester. Percent of the population 25 years and over with a bachelors degree or higher was 48% in Bergen and 47% in Westchester. Median age of the population was 42 years in Bergen and 41 years in Westchester. Each county is connected to Midtown Manhattan by two major commuter rail lines. Two notable differences that may affect the number of restaurants are population density and employment. Population density in 2018 was 1900 people per square mile in Westchester and 3700 people per square mile in Bergen. Total employment in Bergen and Westchester in 2012 was 438,000 and 390,000, respectively.

Data was collected from Google map searches on restaurant rating, food and beverage cost rating, and restaurant food type for restaurants in Bergen and Westchester counties in 2019. The restaurant rating is from self motivated reviewers who participate online at a time of their choosing and the restaurant cost and food type data is generated internally by Google. Restaurant ratings go from one to five stars and cost ratings go from one to four dollar signs. These data were collected from Google map searches on restaurants near a given municipality in each county, for
example, “restaurants near Scarsdale, New York.” These searches were done for each municipality in each county with only restaurants in the given municipality included in that municipality’s list.\textsuperscript{12} It is hit or miss whether a coffee shop or a bakery or a snack shop is included in the datasets as a restaurant. Starbucks, for example, is not considered a restaurant in Google maps, but Dunkin Donuts is. Restaurants with less than 10 reviews are not included in the databases. The presence of an on premise alcoholic beverage license was determined from the alcoholic beverage license databases maintained by each state’s liquor control authority.\textsuperscript{13}

In Bergen County, 2321 restaurants were identified from Google map searches for restaurants near each municipality. Seven of these had the highest cost rating of four, 63 had a cost rating of three, 872 had a cost rating of two, 700 had a cost rating of one, and no cost rating was provided for 679 of the restaurants. Limited service restaurants, characterized by no table service and payment before the meal, are almost always in the cost one rating category. Restaurants in cost categories two, three, and four are almost always full service or table service, with payment after the meal and a wait staff. The average restaurant rating (average number of stars) for these four cost categories were 4.44, 4.37, 4.27, and 4.19. The restaurants with missing cost data had a 4.30 average restaurant rating. In Westchester County, 1576 restaurants were identified from Google map searches for restaurants in each municipality. Seven of these at the highest cost rating of four, 33 had a cost rating of three, 682 had a cost rating of two, 254 had a cost rating of one, and no cost rating was provided for 596 of the restaurants. The average restaurant rating (average number of stars) for these four cost categories were 4.44, 4.33, 4.31, and 4.16. The restaurants with missing cost data had a 4.26 average restaurant rating. There were more restaurants in Bergen but the distribution of restaurants across cost categories and their ratings are similar except for cost category one restaurants, in which Westchester had fewer. Cost category one restaurants are usually limited service and usually without alcoholic beverage licenses. Thus, at first glance it does not appear that the alcoholic beverage license quotas in Bergen coupled with no corkage fee BYOB has resulted in fewer table service
restaurants as compared to population quota free alcoholic beverage licensing in Westchester with no BYOB permitted.

In table 1 (https://sites.google.com/site/bergenandwestchester/tables) the characteristics of restaurants located in Ridgewood, New Jersey, and Scarsdale, New York, in 2019 are listed. Ridgewood and Scarsdale are the “queen” cities of Bergen and Westchester counties, with median family incomes of $162,000 and $292,000, with 89 and 90 percent of the population 25 years of age and over with a four-year college degree, with populations of 25,200 and 17,900, with both featuring commuter rail stops and vibrant downtowns that attract nonresidents. Ridgewood had seven three dollar cost category restaurants, 49 two dollar cost category restaurants, and 29 one dollar cost category restaurants. Scarsdale had in these cost categories four, 45, and 19 restaurants. There were no four dollar cost category restaurants in either municipality. Ridgewood had 56 restaurants in the two and three dollar cost categories and Scarsdale 49. Of Ridgewood’s 56 restaurants in these categories, eight had on premise alcoholic beverage licenses, fitting neatly into the population formula of one on premise license per 3000 population. Forty one of the 49 Scarsdale restaurants in these categories had liquor licenses. Some of eight restaurants without licenses may be limited service and misclassified out of the one dollar cost category.14

In table 2 (https://sites.google.com/site/bergenandwestchester/tables) the characteristics of restaurants located in Mahwah, Bergen County, New Jersey, and Yorktown, Westchester County, New York, in 2019 are listed. Mahwah is located at the northwestern edge of Bergen County, 35 miles from the Empire State building. Yorktown is located in the northwestern corner of Westchester County, 43 miles from the Empire State building. Median family incomes in Mahwah and Yorktown are $166,000 and $161,000, percent of the population’s 25 and over with a four-year college degree are 60% and 57%, and their populations are 26,300 and 37,000. While Ridgewood and Scarsdale have slightly smaller populations today than they had in 1970, Mahwah’s population has grown from 10,800 in 1970 and Yorktown’s has grown from 28,000 in that year. Mahwah had 15 one dollar cost category restaurants and 17
two dollar cost category restaurants in 2019. Yorktown had 21 one dollar cost category restaurants and 17 two dollar cost category restaurants. There were no three or four dollar cost category restaurants in either municipality. In Mahwah, five of the 17 two dollar cost category restaurants had alcoholic beverage licenses and in Yorktown all of the two dollar cost category restaurants had alcoholic beverage licenses except for a Panera bread. The pattern is the same in these municipalities with more recent population growth on the northwestern edges of their counties as it is in the long-established elite towns in the county centers. There are similar number numbers of full service restaurants in the matched municipalities, with most of the Westchester full service restaurants having liquor licenses and most of the Bergen full service restaurants BYOB.\textsuperscript{15}

The results of a regression of restaurant rating (\textsuperscript{*10}) for Bergen County two dollar cost category restaurants and higher on food type indicators, an alcoholic beverage license indicator, and cost category are (absolute value of t statistics below coefficients):\textsuperscript{16}

\[
\begin{align*}
\text{rating}^{*10} &= 41.7 - 0.8 \text{ license} + 0.8 \text{ cost cat} + 1.0 \text{ Italian} - 2.6 \text{ Chinese} - 1.4 \text{ Korean} - 0.1 \text{ Pizza} \\
 & 80.2 \quad 4.9 \quad 3.3 \quad 5.1 \quad 6.1 \quad 4.3 \quad 0.3 \\
\end{align*}
\]

R squared= .13, F= 20, n = 803

The alcoholic beverage license coefficient shows little difference in restaurant rating between licensed and unlicensed restaurants, with licensed restaurants having ratings approximately one third of a standard deviation lower than the unlicensed restaurants. These restaurants are shown in table 3 (https://sites.google.com/site/bergenandwestchester/tables). If restaurants from the same cost categories in Westchester County, shown in table 4 (https://sites.google.com/site/bergenandwestchester/tables), are added to the data, the licensing dummy coefficient stays negative, falls in absolute value, and loses statistical significance. This regression is roughly comparing the ratings of unlicensed BYOB full
service restaurants in Bergen with licensed full service restaurants in Bergen and Westchester.

Seventeen percent of the Bergen County restaurants, two dollar cost category and above, were classified as Italian. If we limit the Bergen sample to this most popular restaurant type, the negative licensing coefficient increases in absolute value.

\[
\begin{array}{ccc}
\text{rating}*10 & = & 42.8 - 1.1 \text{ license} + .8 \text{ cost cat} \\
46.4 & & 3.3 \quad 1.9
\end{array}
\]

R squared= .07, F= 6.0, n = 147

There is no evidence, then, in these data for Bergen and Westchester counties that New Jersey’s alcohol control policies result in fewer full service restaurants or restaurants of lower quality in Bergen than in quota free Westchester. However, the substantial market values for on premise licenses in the secondary market indicate that BYOB restaurants are not perfect substitutes for on premise alcoholic beverage establishments and, thus, it is second-best to have BYOB restaurants fill gaps in supply. Also, top down one-size-fits-all population licensing formulas will never be a good fit for municipalities with different restaurant markets. As will be shown below but is self-evident, there is a greater demand for restaurant meals and for on premise alcoholic beverages in municipalities that are employment centers, tourism centers, shopping centers, or otherwise attract nonresidents than similarly populated municipalities that are bedroom communities. And the balance between negative and positive alcohol consumption externalities is probably best determined at the local level and regulated through alcohol license fees, zoning, and policing. There is room for some state oversight to the extent that externalities extend beyond municipal borders, for example, drunk driving.

There is evidence that restaurants licensed for alcoholic beverages have greater longevity, assuming that the natural log of the number of restaurant reviews correlates with time in business. The natural log of the number of reviews is used to dampen the effect of higher restaurant quality on the number of reviews in a given time period (Moe
and Schweidel, 2012). A regression of the natural log of reviews on the licensed dummy, cost category, restaurant rating, and Italian, Chinese, Korean, and pizza identifiers, for two dollar cost category restaurants and above in Bergen County (data in table 3), gives a license coefficient of .56 with a t value of 9.4. This is a large effect, the mean number of reviews is 331 and this license coefficient implies about 70% more reviews for restaurants with alcoholic beverage licenses.

A Cross County Model of the Determinants of Full-service and Limited Service Restaurants in the US

In this section I examine the determinants of the number of full-service and limited service restaurants in counties in the United States and the number of employees in these restaurant categories. One purpose is to demonstrate that county restaurant demand is sensitive to employment and tourism, thus indicating that allocating alcoholic beverage licenses based on resident populations is, to be generous, hit and miss. Secondly, I am also interested in quantifying the impact of population density and employment on the number of full service restaurants. Recall that although Bergen and Westchester counties were uncannily similar across a number of socioeconomic and demographic categories, they differed substantially in population density and to a lesser extent, employment.

The most recent public data available at the county level for the number of restaurants and the number of restaurant employees is from the 2012 County Business Patterns data from the U.S. Census. Counties are large enough to capture the market reach of most restaurants in the US and numerous enough to provide a substantial number of observations, despite the confidentiality issues that can characterize the responses from smaller populated counties. Explanatory variables in the regression models include median family income, percent of population 25 and over with a bachelor degree or higher, population density, total county employment, total county employment in the hotel, motel industry, race and ethnicity variables, and a dummy variable identifying states that restrict alcoholic beverage licenses based on population
ratios. The number of full-service and limited service restaurants, the number of employees in these establishments and the total employment and hotel/motel employment variables are divided by county population. The total employment and hotel/motel employment variables are meant to capture in migration to a county for work or leisure and are expected to be positively correlated with restaurant demand. Race or ethnic diversity in a county may be negatively associated with restaurant demand if social engagement is inversely related to diversity (Putnam, 2007) or if the propensity to frequent full or limited service restaurants differs by race or ethnicity. Population density should be associated with reduced travel time to restaurants on the demand side although this positive effect would be diminished by the correlation of density with commercial rental rates on the supply side. States with population restrictions on restaurant alcoholic beverage licenses are expected to have less full-service restaurants, other things the same. Employment at full-service restaurants may not be adversely affected if restaurants in population restricted states with alcoholic beverage licenses are larger than their counterparts in unrestricted states. As implied above, the regression models are reduced forms; that is, the independent variables can be thought of as from structural equations explaining the demand for and supply of restaurants by county. Importantly, none of the right-hand side variables would seem to be endogenous, meaning that the number of restaurants, say, are not important determinants of income, ethnicity, hotel motel employment, etc. in a county. Similar models have been estimated previously but none appear in the literature after 2010 except for Yang et al. (2017), in which there is a thorough review of the previous literature. The socioeconomic and demographic variables are at American factfinder and are from the American Community Surveys and the U.S. Census.

In table 5 the results for the regression models of the number of full-service restaurants (table service and payment after the meal) per capita and the number of limited service restaurants per capita are presented. The regression coefficients of the density, education, total employment, hotel motel employment, and percent white variables in the full service and limited service regression equations are .001 and .0004, 2 and 41, 34 and 75, 1828 and 372, and .4 and -.1. That is, taking these point
estimates, nearly all statistically significant, the density effects and the education effects are twice as big in the full service model as in the limited service model; the hotel motel employment effect is five times as big, and the white effect is positive for the former and negative for the latter.\textsuperscript{18} The effect of total employment in the county is half as big in the case of the full-service restaurants. The stronger effects of percent white and education in the full-service restaurant estimates is consistent with Putnam’s (2007) results in his analysis of social capital in the United States, assuming increases in the white population in the county data used in this research increases racial and ethnic homogeneity.\textsuperscript{19} Putnam found that his social capital variables, such as trust in your neighbors, were negatively impacted by racial and ethnic heterogeneity and positively and substantially associated with levels of education. More trust in neighbors should lead to more dining out in full service restaurants and be less strongly associated with the purchase of meals at limited service restaurants, most of which are take-out. These results are also consistent with the findings of Brinkley (2006), who reports that Blacks spend significantly less at full service restaurants than whites or Hispanics, income, education and other variables constant. Dong et al., (2000) also reports that Blacks spend less at full service restaurants. Hotel and motel guests apparently favor sit down meals over fast food and workers in a county, apparently more sensitive to time constraints, favor limited service restaurants over full-service restaurants. The small negative income effect is similar to Yang et al. (2017), who reported negative income coefficients in 10 of their 15 restaurant models estimated across zip codes.\textsuperscript{20}

The results don’t have strong implications for the Bergen – Westchester restaurant comparisons. The elasticities at the means for the density and employment variables from the full service restaurant equation are .01 and .14. Bergen had approximately 10% more employment than Westchester and double the population density, but the density effect is small. In terms of explaining the greater number of full-service restaurants in Scarsdale and Ridgewood as compared to Mahwah and Yorktown, the education elasticity of .2 implies that bringing up the percent of the population 25 years and older with a four-year degree 30 percentage points, or 50%, in Mahwah/Yorktown would increase the number of full service restaurants by about 10%.
This would still leave Mahwah/Yorktown with less than one half of the two and three dollar cost category restaurants that are in Ridgewood/Scarsdale.

In table 6, results for the regression models of the determinants of the number of employees in full service restaurants and in limited service restaurants in counties of the US are presented. The pattern of the results are similar to those in table 5 other than the population quota dummy variable coefficient turns from small and negative in the number of full-service restaurants results to small and positive in the number of employees of full-service restaurants results. This is consistent with the idea that if restaurant alcoholic beverage licenses are limited by population formulas, those restaurants with licenses will be larger than otherwise would be the case.

Summary and Conclusion

In this paper I have used data from Google Maps to examine how population restricted on premise alcoholic beverage licensing in New Jersey impacts restaurant availability, restaurant quality, and restaurant longevity. I did this, in part, by comparing restaurant data from Bergen County, New Jersey with restaurant data in quota free Westchester County, New York. I found no evidence that New Jersey’s alcohol control policies result in fewer full service restaurants or restaurants of lower quality in Bergen as compared to laissez-faire licensing Westchester. This is because New Jersey’s stringent population quotas are complemented by a liberal BYOB policy for restaurants without alcoholic beverage licenses and these BYOB restaurants fill gaps in supply. However, the substantial market values for on premise licenses in the secondary market in New Jersey indicate that BYOB restaurants are not perfect substitutes for on premise alcoholic beverage establishments and, thus, it is second-best to have BYOB restaurants provide a large proportion of full service restaurant meals in many New Jersey municipalities. Top-down one-size-fits-all population licensing formulas will never be a good fit across municipalities with different restaurant markets as has been demonstrated in this and previous research. And the balance between negative and
positive alcohol consumption externalities is probably best determined at the local level and regulated through alcoholic beverage licensing fees, zoning, and policing.

1Leaving aside licenses for caterers, clubs, sport and entertainment venues, brewpubs, wineries, special permits, etc.
2The states with population restrictions on alcoholic beverage licenses are Alaska, Arizona, California, Florida, Idaho, Kentucky, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New Mexico, Ohio, Pennsylvania, South Dakota, Utah, Washington, and Wisconsin (Saksa 2014, and the author’s own survey).
3 https://abc.utah.gov/license/licenses_club.html
4 Agnish (2018), Pugliese and Davidowitz (2018)
5 The primary enforcers of New Jersey's BYOB regulations are the managers of the BYOB restaurants. In 30 years of BYOB dining in New Jersey, the author has never seen a reprimand of someone drinking spirits in these restaurants, nor has the author encountered an unliscensed full service restaurant that does not honor BYOB.
6 Here is the list of the asking prices (000s) for restaurant liquor licenses in New Jersey in January 2020 at one broker site: 550, 640, 450, 700, 429, 500, 500, 599, 330, 400, 300, 450, 410, 130, 150, 450, 350, 290, 95, 199, 85, 115, 80, 50, 55, 160, 115, 120, 80, 200, 95, 180, 150, 1100, 600, 750, 470, 250, 70, 349. https://liquorlicenseauctioneers.com/buy?location=NJ&location=nl&crtag=goognjlic&gclid=CjwKCAiAx_DwBRAfEiwA3vwy2wZYoo-R1uVIF2MtkKmNzqnLMRd2d0eH-GvajsFVkgHbmtW2QwNRoCRA0QAvD_BwE
8 https://sla.ny.gov/alcoholic-beverage-control-law
10The data in this paragraph are from the 2017 American Community Survey, the 2012 County Business Patterns, or the U.S. Census. All are at America FactFinder.
11There tends to be upward bias in online self motivated reviews in part because the reviewer has expressed a preference for the product or service to begin with (Hu et al., 2017). This bias is less important when comparing one restaurant against another, or one group of restaurants against another group if the bias is similar in each instance. Furthermore, there is evidence that this bias is reduced the more familiar the platforms are to the reviewers (Han and Anderson, 2020). Google maps would certainly seem to fall in the category of a familiar platform.
12Google maps cannot be used to search for restaurants confined to a given municipality. Searches for restaurants in Scarsdale, New York, must be done by searching for restaurants near Scarsdale and then deleting restaurants without a Scarsdale address.
13 See https://sites.google.com/site/bergenandwestchester/home for the New York and New Jersey license list used in this research
14 They were Amore Pizza, Buon Maici Deli, Chopt Creative Salad, Happy Days Pizza , Hunan village II, Italian village, Kishuya Ramen Noddle Bar, Little Thai Kitchen
The annual fee for an on premise restaurant license (OP 252) in Westchester County, New York in 2019 was $1792. The annual fee for a on premise alcoholic beverage consumption license in Ridgewood and Mahwah in 2019 was $2500 and $1890, respectively.

Means and standard deviations of the variables are rating*10 43.12 (2.31), cost category 2.1 (.31), license dummy .34 (.47), Italian dummy .17 (.38), Chinese dummy .03 (.18), Korean dummy .06 (.23), pizza dummy .06 (.24).

The per capita dependent variables have been multiplied by 100,000. The mean number of full service and limited service restaurants per capita, multiplied by 100,000, in laissez-faire on premise alcoholic beverage licensing New York and in population formula license restricted Utah are 105 and 87 in New York and 58 and 84 in Utah. The numbers for New York, excluding New York City, are 96 and 80. The numbers for New Jersey are 93 and 78.

Percent of the county population black and percent Hispanic were included in the models, were negatively related to full service restaurants per capita and were not statistically significant.

The mean percentage white in these county data is .82.

A specification with income and income squared gives a positive income coefficient and a negative income squared coefficient. So far so good, but neither coefficient is statistically significant and peak restaurant "demand" is at about a median family income of $20,000. These results are apparently another example, such as the demand for health (Grossman 1972), where education effects dominate income effects. Getting out and about is one way the intellectually curious can increase their understanding of the world around them, while higher income, education constant, may not mean more inquisitiveness.
Bibliography


