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Social differentiation and the market for eating out in the UK

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Abstract

Data collected under the ESRC Research Programme ‘The Nation’s Diet: The Social Science of Food Choice’ offer an opportunity for detailed analysis of British eating-out habits. 1001 respondents in Bristol, London and Preston reported on their use of various types of eating-out venue. We find evidence of considerable market segmentation. The eating-out product is significantly differentiated, with ‘ethnic’ venues appealing to certain social groups for particular reasons. The paper uses logistic regression to distinguish the factors affecting the probability of exposure to each type of restaurant. Age, earnings and household income are important but vary in their specific effects. We find additional, independent effects of locality, occupational class, education, and ethnicity. We describe and recommend logistic regression as an analytic technique for explaining differential participation in the selection between different types of places to eat out. © 2000 Elsevier Science Ltd. All rights reserved.

Keywords: Eating out; UK market; Social differentiation; Logistic regression; ‘Ethnic’ venues

1. Introduction

Data collected as part of the ESRC Research Programme ‘The Nation’s Diet: The Social Science of Food Choice’ offer an opportunity for detailed analysis of British eating-out habits. British towns and cities offer a wide variety of types of places to eat out, including fast-food outlets, ethnic restaurants, and hotels and pubs. Casual observation tells us these places are frequented by different sorts of people, but we know little in detail about the eating-out market. Previous research suggests that

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eating-out is a way of marking social distinctions (Tomlinson and Warde, 1993; Warde and Tomlinson, 1995; Warde, 1997). Our data suggest that the factors which influence peoples' choice of restaurant vary with the type of eating-out site. We are now in a position to study systematically the precise social factors that appear to influence people's choices between types of eating-out experience.

We confirm and describe in detail considerable market segmentation, a matter of both practical and social scientific interest. Our survey data show that not only is the product differentiated but the types of people who choose each type of eating-out outlet vary in regular, well-defined ways. We analyse this social segmentation in unprecedented detail through the use of logistic regression analysis. The findings offer a subtle discrimination among economic and social characteristics of customers (notably contrasting personal income with social class as explanatory factors).

2. Research methods

We report here on findings from a questionnaire survey done on doorsteps in three British towns (Preston, London and Bristol). These data have been augmented by recorded interviews with respondents in Preston, but we make little reference to the qualitative data in this paper. After describing how the survey was done, we introduce the analytical methods used.

2.1. Survey data collection

1001 people were interviewed in three cities in England: London, Bristol and Preston. A quota sample matched respondents to the overall population of diverse local wards by age, sex, class and ethnic group. The survey was undertaken in April 1995. Questions were asked to ascertain frequency of eating out, types of outlet visited, attitudes to eating out, the details of the most recent meal eaten away from home, and main domestic routines. Social-demographic information was also elicited in order to explore social variations by class, income, age, gender, education, place of residence, and so forth. The survey allowed estimation of general patterns among urban populations. It creates an opportunity for statistically based exploration of the association between the social characteristics of respondents and their conduct.

2.2. Data analysis

Logistic regression is a technique commonly used in social and health research where an outcome is coded as a zero-one or yes-no variable. The apparent determinants of that outcome can be measured in terms of their quantitative impact on the odds of the outcome event occurring. Thus, in the study of criminal behaviour we test various factors to see if they appear to raise or lower the chances of a given ex-convict being convicted of a fresh offence. In the present context, logistic regression is used to study the factors influencing whether people use a particular type of eating-out outlet. Obvious candidates for the influential factors are the age and sex of respondents, their

work history and social class, their personal earnings and household income, and their identification with ethnic groups. With a three-city survey, we have to allow for differences in the availability of particular restaurant types. ‘Preston’ and ‘London’ therefore appear as proxies so that the socio-demographic effects are measured after controlling for location. Separate logistic regression equations are used to test the same set of factors as possible determinants of each type of eating-out practice (see Table 1). The survey question referred to in Table 1 is whether the respondent had eaten out in that type of restaurant during the 12 months preceding the survey.

Market research and some very limited academic research has shown that there are some difference in who uses which places. Usually, these findings have been based on the analysis only of crosstabulations (e.g. Payne and Payne, 1993), yet many socio-demographic variables like age, education, occupation and income are correlated with one another. It is often unclear from a series of crosstabulations whether, for instance, people visit French restaurants because they have the cultural background involved in obtaining a degree, or because their occupational community of fellow professionals

Table 1
Forms of eating-out experiences covered in logistic regressions

Details of the dependent variable (The questionnaire asked respondents to state whether they had eaten a main meal during the last 12 months in any of the following types of restaurants):	Percent of the sample who used that site in the past year (%)	Percent of cases correctly predicted by logistic regression (%)
Workplace restaurant	29	72
Pizza restaurant	41	72
Fast food restaurant	49	68
Fish and chips eat-in restaurant	18	82
Wine bar	17	85
Motorway services restaurant or diner	31	73
In-store or in-shop restaurant	31	69
Cafe or teashop	52	65
Steakhouse	19	82
Bar food area of a public house	49	65
Restaurant attached to a pub	42	62
Hotel restaurant	25	77
Italian restaurant	31	74
Indian restaurant	33	74
Chinese or Thai restaurant	29	78
Other ethnic restaurant (French, etc ^a)	21	83
Any ethnic restaurant (Non-UK cuisine)	52	71
American restaurant	12	—
British style restaurant	6	—
Vegetarian restaurant	9	—

^aOther Ethnic Restaurant included French, Greek, and others. Indian Restaurant includes Pakistani style restaurants. Any Ethnic Restaurant was calculated as positive if the respondent has eaten at any of the following: Italian, Indian, Chinese, Thai, or other ethnic restaurant.

encourages attendance in smart restaurants, or simply because they have a significantly greater than average salary. There is therefore an advantage in engaging in more sophisticated statistical analysis to estimate their independent effects. Regression techniques estimate the importance of each explanatory variable after allowing for variation that can be attributed to each other factor. So when we measure the relationship between education and recent familiarity with Indian cuisine, we do it while allowing for income, age, class and gender.

Because this technique involves automatic computation by strength of association, eliminating the more weakly correlated factors, there is a possibility of spuriously eliminating some important factors. Therefore, we examined the variables which have been eliminated. Where appropriate we employ theoretical reasoning to guide the elimination of factors postulated to be central. For example, gender is not significant in several equations. We allow it to be dropped, but we have explored the ways gender effects appear implicitly through gendered characteristics such as having a part-time job. Income has also been carefully examined. Although personal and household income are somewhat correlated with each other, we test both variables because they seem to have substantially different, additive effects.

In our results, we comment on various logistic regression equations. In each, we estimate the substantive effect of each variable on the odds of that form of eating our having occurred. For zero–one variables like whether there are children under 5 years of age in the house, the resulting coefficient tells you how much the odds increase if that factor is present. For continuous independent variables the interpretation is less simple: for a one-year increase in age there is an increase of B in the odds of that person eating out. The actual coefficient (B) shows the size of the effect on the “logit”, i.e. the logarithm of the odds. Here, inverse effects show up as negative and direct effects as positive. For our final results, however, we present the coefficient $\text{Exp}(B) = e^B$ to avoid the logarithms. $\text{Exp}(B)$ measures the multiplicative effect on the predicted odds. If $\text{Exp}(B)$ is greater than one, there is a positive effect. If it is less than one, there is an inverse or negative effect. $\text{Exp}(B)$ is always above zero. If $\text{Exp}(B)$ is not significantly different from one, we drop the variable from the equation.

We found it essential to include some interaction effects in the final equations. For instance, the model predicting eating out in an Indian restaurant has two interaction effects in its most simplified form (Table 2).

The direct effects shown in this reduced-form equation are as follows. Preston residents are nearly twice as likely to have eaten out an Indian restaurant as other respondents. Higher education strongly increases the odds of doing so. Personal income has a positive effect. However, the effects of several variables are mediated by changes in the value of other variables. In particular, people in households with more than two members which also have children under five present are much less likely than people in the base case, where household size is 2 and there are no small children. The odds of having eaten a main meal in an Indian restaurant are halved (coefficient 0.50) for this combination of characteristics. Another positive interaction effect appears which combines London residence with household income. The positive effect of household income is enhanced for the London respondents, compared with Preston and Bristol residents. The coefficient (1.04) is highly significant.

Table 2
Size and significance of main variables influencing eating out at an Indian restaurant

Independent Variable	LogOdds coefficient B	Antilog coefficient exp (B)	Significance using Wald statistic
Whether in Preston	0.65	1.91	0.0003 ^a
Education			
Having GCSE	0.34	1.41	0.123
Having A-level(s)	0.44	1.56	0.063 ^c
Having degree	1.22	3.39	0.000 ^a
Personal income (£k/year)	0.02	1.03	0.064 ^c
Age	0.09	1.09	0.034 ^b
Age squared	− 0.002	0.998	0.003 ^a
Interaction of household income with London	0.04	1.04	0.000 ^a
Interaction of having household size > 2 with having kids under 5	− 2.77	0.50	0.001 ^a
Number of cases	1001		
Overall χ^2 significance	0.000		
% of cases predicted correctly	74%		

^aSignificant at 1% level.

^bSignificant at 5% level.

^cSignificant at 10% level.

Before moving to the results for all the regressions, four technical comments are in order:

- (1) There is an implicit base case for each dummy variable. These are: no formal education; white ethnic identity; male gender; household size of two; married; social class semi-skilled or unskilled manual; and employment being fulltime.
- (2) Age effects are often curved. Fig. 1 illustrates the curvature for variables where there is an age effect.
- (3) The interaction effects such as X_1 with X_2 suggest that X_1 affects the way in which X_2 affects the outcome. We therefore re-enter both direct effects, X_1 and X_2 , whenever their interaction is found to be significant. As a result some individual factors in our final tables appear with insignificant direct effects (shown in brackets). Table 3 shows that minor changes then occur in significant coefficients for the regression e.g. for modelling the odds of a person eating out at an Indian restaurant.
- (4) We set a 10% cut-off level for the removal of variables from the models. We used the Statistical Package for the Social Sciences (SPSS) to examine the relative loss of overall explanatory power before deciding which variables to remove manually at each step.

It is valuable to find that the direct effects and interaction effects in multiple regression differ from what would be discovered if each explanatory variable were taken

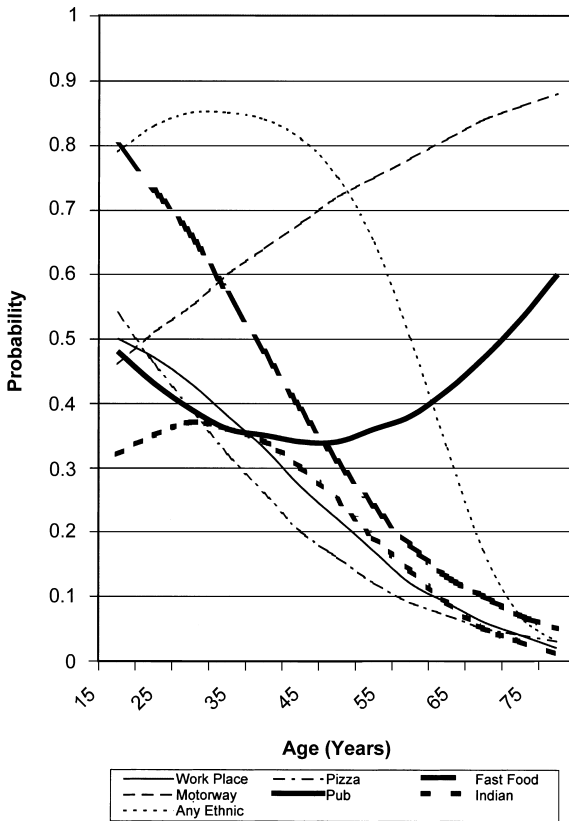


Fig. 1. Effects of age on probability of eating out at various venue types.

separately using the chi-squared statistic, *t*-statistic, and other statistical tests. For example, in the Indian meals equation, household size has no significant effect on the odds of eating out in an Indian restaurant when tested using the bivariate chi-squared statistic. However, the multiple regression has revealed a significant effect involving household size. On the other hand, ethnicity of the respondent has no statistically significant bivariate effect on the 'Indian' dependent variable. The ethnicity variable was tested further using multiple regression and again shown not to be relevant whilst allowing for other factors that might have been masking an 'ethnic' difference.

3. Results

In a previous paper we reported on cross-tabulations and linear regressions showing high significance levels when income, age, social class, etc. are compared with levels of frequency of eating out (never, yearly, monthly or weekly; Warde et al., 1999).

Income and age are almost universally important factors in the multivariate models. Locale (Preston, Bristol, or London) also proves important to most explanations. Locale acted as a proxy for some supply factors, such as regional variation in specialised restaurant types and London's higher labour costs. Frequency of eating out was, however, less socially differentiated than was choice of venue. The average respondent ate about 18 main meals out on the premises of commercial outlets in the year preceding the survey.

The results of our logistic regression analysis show in detail how different types of venue attract different clientele. Besides predicting what venues people chose, our model also helps show who avoids which outlet type.

Income is commonly assumed to be an important positive correlate of eating-out. However, our results show income dropping out of the explanation for some venues. Specifically, household income is not important in explaining use of fast-food outlets or wine bars. Personal income (showing the respondent's contribution to household income) did not independently influence the use of: pizza restaurants, fast-food venues, fish and chips restaurants, restaurants inside shops, pub bars, or Italian, Indian, and Chinese restaurants. In other words, our model identifies more specific factors than income. By distinguishing income from social class and current employment status the present analysis offers considerable subtlety in the analysis of causal factors.

In logistic regression there is no single indicator of the strength of overall explanation as there is in multiple regression. In every regression our equations perform much better than the 50% we would get by blind guessing as to whether each respondent used that type of outlet. We obtained 72–85% accuracy, which is acceptable. We also have χ^2 for the model with significance of 0.0000 in every case. As Table 3 shows, many individual variables emerged as significant and no single effect dominated the explanation.

The social characteristics which influenced where people ate out were significantly and substantially different depending on what kind of food and service were being sold. Our results show few influential variables for eating out at fish and chips restaurants. These seem to be used almost universally in the UK, except that women go less than men. (Note: Fish and chip takeaways were treated separately in the survey; the present paper refers to eating main meals on the premises of a commercial establishment.)

Other types of places were far more exclusive. We can compare the relative size of income and other effects by looking at the rows of Table 3. However, a simple claim that high income implies exotic eating-out styles is not supported. High personal income is associated with eating-out in wine bars and steak houses as well as most ethnic foods. But several other indicators are also important. Consider, for example, the important category of 'Other Ethnic Restaurants', which includes eating out at French, Greek and Turkish restaurants. In addition to age, locale, and personal income, a respondent's education level and the social class of his/her father were also important co-variables. Once these social and demographic variables are allowed for, there is no residual occupational effect.

Where the proportion of the sample having a given restaurant experience fell below 15%, we have not calculated logistic regression coefficients. This is because, below 15% probability, the predicted odds approach is not recommended.

The main substantive effects are summarized in Table 4.

Table 3
Logistic regression coefficients for factors influencing having eaten a main meal in each venue type in 1994/95

<i>Independent Variables</i>	The respondent stated whether they had eaten a main meal during the last 12 months in any of the types of restaurants below:								
	At work	Pizza	Fast food	Fish & chips	Wine bar	Motorway	In shop	Cafe/teashop	Steak house
Social class ^a									
Professional	0.46 ^c	2.80 ^b		4.07 ^b			1.66	2.31 ^c	
Employers, managers	0.54 ^d	2.25 ^c		4.26 ^b			1.73 ^d	1.62	
Intermediate	0.54 ^c	1.97 ^c		3.53 ^b			2.18 ^b	2.55 ^b	
Petit Bourgeois	0.35 ^c	1.32		0.41			0.97	1.19	
Supervisors and skilled manual	0.50 ^c	1.48		1.56			2.00 ^c	1.93 ^c	
Junior and nonmanual and PSs	0.57 ^c	1.46		2.08 ^d			1.65 ^d	1.69 ^c	
Semi and unskilled manual (base)	—	—		—			—	—	
No recorded jobs	0.32 ^b	2.53 ^b		2.62			1.12	1.84 ^d	b
Employment Status ^a									
Full-time employee (base)									
Student									—
Part-time employee									0.94
Housewife									1.41
Unemployed									0.76
Other work status									1.24
Father in service class occupation			0.62 ^c			1.54 ^c			0.34 ^c
Education Level ^a		b				b	c		1.06
None, or below GCSE (base)		—				—	—	—	—
GCSE or above		2.35 ^b				2.04 ^b	1.09	1.23	
A-level(s) or guilds		2.46 ^b				1.38	0.88	1.09	
Degree level or above		3.01 ^b				2.60 ^b	1.74 ^c	1.72 ^c	
Marital status									
Single		0.87	{1.20} ^d			{0.95}	0.90		
Married or cohabiting (base)		—	—			—	—	—	
Separated or divorced		3.47 ^c	{1.73}			{1.04}			
Whether kids under 5 in the household	0.52 ^b	0.50 ^b	{1.03}			{0.78}			

Size of household									
Living alone	0.23 ^c	0.55	1.06	0.90	0.88				
Two members	—	—	—	—	—				
More than two in household	1.48 ^c	1.46	0.55 ^b	1.46 ^c	1.32 ^d				0.36 ^b
Non-white ethnicity									
Locale (L, B, or P)									
Bristol (Base)	—	—	—	—	—				—
London	1.27	{1.14}	0.51	0.52 ^b	1.63 ^b				{0.98}
Preston	1.84 ^b	{0.64}	0.83	1.09	1.87 ^b				{0.76}
Age of respondent	0.99 ^b	0.93 ^b	0.99 ^c	0.99	0.98 ^b				
Age squared	1.04 ^c		0.9996 ^b						
Income of respondent	1.01 ^c	{0.98}	{1.04}	1.005 ^c	1.02				0.95 ^c
Total income of household	0.68 ^c		{0.99}	1.04 ^d	1.01				1.05 ^b
Gender female			0.61 ^b	1.74 ^b					0.56 ^b
Interaction effects									
Single*alone		0.89							
Divorced*alone									
Single* > two in hhold									
Divorced* > two in hhold		0.42 ^d							
Single*kids < 5 in hhold		0.58							3.14 ^c
Divorced*Kids < 5 in hhold									
Living alone*Kids < 5 in hhold									
> Two in household*Kids < 5 in hhold									
Income*London		1.03	1.04						1.08 ^c
Income*Preston		1.6 ^c	0.91 ^d						1.02
Household income*London			1.02						0.96 ^d
Household income*Preston			1.07 ^b						0.97
Constant term	1.2884	0.6908	0.1105	0.1237	0.3720				0.2596
Number of respondents	1001	1001	1001	1001	1001				1001

(Table continued on next page)

Table 3 (continued)

<i>Independent Variables</i>	Pub bar	Pub restaurant	Hotel	Italian	Indian	Chinese	Other ethnic	Any ethnic
Social class^a								
Professional				b			1.77 ^c	
Employers, managers				—		b	b	
Intermediate				1.30			—	
Petit Bourgeois				0.74			—	
Supervisors and skilled manual				0.31 ^b			—	
Semi and unskilled manual (base)				1.08			—	
No recorded jobs				0.73			—	
Employment status^a								
Full-time employee (base)				b	b		1.77 ^c	
Student				—			b	
Part-time employee				1.34	1.40	1.53 ^d	—	1.92 ^c
Housewife				1.43	1.57 ^d	1.83 ^c	—	2.78 ^b
Unemployed				3.77 ^b	3.36	3.19 ^b	—	5.50 ^b
Other work status								
Father in service occupation			b				{1.17}	{0.999}
Education level^a								
None, or below GCSE (base)				—	—	{1.03}	—	—
GCSE or above			1.20	1.34	1.40	1.53 ^d	—	{0.64}
A-level(s) or guilds			1.86 ^c	1.43	1.57 ^d	1.83 ^c	—	17.02 ^c
Degree level or above			3.00 ^b	3.77 ^b	3.36	3.19 ^b	—	—
Marital status								
Single	1.91 ^b	0.50 ^b	1.12	{1.18}			{1.17}	{0.999}
Married or cohabiting (base)	—	—	—	—			—	—
Separated or divorced	—	—	1.48	—			—	{0.64}
Whether kids under 5 in the household	1.07	—	1.07	1.78 ^c	{1.90}	8.29 ^c	0.33 ^b	17.02 ^c
Size of household								
Living alone			0.64	—		2.32 ^b	—	{0.69}
Two members		0.35 ^c	—	—			—	—
More than two in household		0.40 ^b	1.25	0.59 ^b	{0.98}	{0.91}	{1.43}	{1.70}
Non-white ethnicity	0.27 ^b	—	0.57 ^d	0.60 ^d				

Locale (L, B, or P)								
Bristol (base)								{1.53}
London	0.41 ^b	1.17	1.89 ^b	2.75 ^b	2.26 ^b	—	—	{1.46}
Preston	0.68	1.27	2.17 ^b	2.02 ^b	0.55 ^c	—	—	1.08
Age of respondent		0.93 ^d		1.09 ^c				0.999 ^c
Age squared		1.0009 ^d		0.998 ^b				0.9996 ^b
Income of respondent	1.02 ^d	{1.00}		{1.02}				1.04 ^c
Total income of household	1.02 ^c	1.05 ^b	1.04 ^b	{1.01}	1.02 ^b			1.02 ^d
Gender female								
Interaction Effects								
Single*alone		3.94 ^c						0.72
Divorced*alone								—
Single* > two in hhold								0.99
Divorced* > two in hhold			0.41 ^c				0.40 ^c	4.06
Single*kids < 5 in hhold	0.49 ^c							0.43
Divorced*kids < 5 in hhold			3.41 ^d					0.15 ^c
Living alone*kids < 5 in hhold			0.004					—
> Two in household*kids < 5 in hhold			0.53					0.07 ^c
Income*London		1.04						
Income*Preston		1.05 ^d						
Household income*London	1.01							1.03 ^d
Household income*Preston	1.04 ^c							1.01
Constant term	0.4806	1.2025	0.0728	0.0528	0.0447	0.702	1.537	1.537
Number of respondents	1001	1001	1001	1001	1001	1001	1001	1001

^a Joint Wald test for a set of dummy variables.

^b Wald test significance < 1%.

^c Wald test significance < 5%.

^d Wald test significance < 10%.

{ } Not significant in its own right, but underlies a significant interaction effect. The coefficients reported here are exp (B), reflecting the multiplicative effect on the predicted odds of the event occurring. Positive factors have coefficients above 1. Inverse factors have coefficients less than 1.

Table 4
Summary of effects

Eating out at work	Semi-skilled and unskilled manual workers more likely; peak likelihood at middle ages; high income more likely; women less likely [employment status not significant]
Pizza restaurant	All classes more likely than semi/unskilled manual; high income more likely; youth more likely; higher education increases likelihood; living alone or with small children less likely; separated or divorced people more likely.
Fast food restaurant	Having father in service class less likely; strong reduction in likelihood as age increases; effect of personal income in Preston positive; being single while also having kids under 5 strongly decreases likelihood [social class itself not main factor]
Fish and chips restaurant	Household income main determinant, with likelihood rising with income; reduction in likelihood as age increases; females much less likely than males [no class effects per se discerned]
Wine bar restaurant	Social classes professional, employers, managers, intermediate and non-manual workers most likely; degree-level education increases likelihood; people living with more than one other person less likely; strong household-income effect in Preston; strong personal-income effect in London but not in other locations.
Motorway services restaurant or diner	Having father in service class more likely; education level strongly increases likelihood (mostly for GCSE's or Degree); household income main determinant, with likelihood rising with income; females much less likely than males; being single while also having kids under 5 strongly increases likelihood; income effects enhanced in Preston.
In-store restaurant	Distinct social class effects, with intermediate and supervisors and skilled manual workers more likely; education to degree level increases likelihood; London respondents least likely; women far more likely than men.
Cafe or teashop	Strong social class effects (positive); students even more likely; education to degree level increases likelihood; non-white ethnicity reduces likelihood a lot; Bristol respondents least likely; likelihood declines strongly with age
Steakhouse	Employment status has an effect, in that retired or 'other' work status reduces likelihood; non-white ethnicity reduces likelihood; negative personal income effect but positive household income effect on likelihood; women much less likely than men; net personal income effect on likelihood is positive in London.
Bar food area of a public house	Single people much more likely; non-white ethnicity strongly decreases likelihood; London respondents least likely; income effects are positive; single people living with two or more others in household half as likely; income effect enhanced in Preston [no class effects per se discerned]
Restaurant attached to a pub	Single people less likely; living alone less likely; but single and living alone implies more likely; age effect bowl-shaped, with middle age groups least likely; strong positive household income effect; non-white ethnicity reduces likelihood a lot [no class effects per se discerned]
Hotel restaurant	Strong positive education effect on likelihood; non-white ethnicity reduces likelihood; strong positive income effects; Preston respondents most likely; single but living with two or more others in household half as likely.
Italian restaurant	Employment status has distinct effects, with full-time employees much more likely than housewives to do this; education to degree level triples the odds; having kids under 5 in household increases odds except for single people, for whom it decreases the odds; people in larger household are less likely; Bristol respondents least likely; likelihood decreases as age increases; and household income has a strong positive effect.

Table 4 (continued)

Indian restaurant	Strong positive education effect on likelihood; Preston respondents much more likely; likelihood decreases as age increases.
Chinese or Thai restaurant	Strong positive education effect on likelihood; living alone increases likelihood; household income effect is positive; London respondents most likely; likelihood decreases as age increases.
Other ethnic restaurant (French, etc)	Having father in service class more likely; strong positive education effect on likelihood; both personal and household income effects are positive; London respondents most likely and Preston respondents least likely; likelihood decreases as age increases; having kids under 5 in household reduces the likelihood; being single while having two or more others in household reduces likelihood; being divorced while having kids under 5 increases likelihood.
Any ethnic restaurant (Non-UK cuisine)	Social class effect is large for professionals, employers, managers, and intermediate; being a full-time employee increases the likelihood; the chances go down rapidly as age increases; positive effect for household (but not personal) income; income effect stronger in London than elsewhere.

4. Discussion

Our main findings are three: there are persistent socio-demographic variations in the use of restaurants; mass and niche markets co-exist in the UK; and restaurants specialising in ethnic cuisines give the strongest evidence of the existence of niche markets. The statistical techniques promise more precise and clear understandings of the social characteristics which predispose people to use different sites for eating out. The complex interactive effects of education, income, occupation, age, ethnicity, and gender have been usefully simplified for analytic purposes. A more sophisticated classification of sites might be expected to disclose even stronger indications of socially differentiated tastes and, therefore, of *de facto* niche markets.

4.1. Socio-demographic variation

Eating main meals out has become very popular and common in the UK. 52% of the respondents had eaten out in some 'ethnic' restaurant in the past year. Half had eaten out at a pub and 31% had eaten a meal at a motorway service restaurant. Yet these are still far from universal experiences. We have analysed curiosity and the variety of restaurant experiences of individual respondents in a separate paper (Warde et al., 1999), where we demonstrated R^2 as high as 34% in some linear regressions which used socio-demographic variables to explain the frequency of some forms of eating-out.

We also find substantial discontinuous effects on the use of certain eating out values. There were, for instance, plenty of cases where people who called themselves "white" used a venue significantly more than did 'non-white' (Table 3), e.g. pubs and

pub restaurants. Yet we cannot simply generalise about this difference. Ethnic identification of the respondent made no difference to eating out at work, at pizza restaurants, at fast food or fish and chips restaurants, in motorway service areas, in shops, or in any variety of ethnic restaurant. Thus, while ethnicity is important, it is selectively important. The mixture of continuous, ordinal, and dichotomous variables in the multiple regressions has thus proved to be revealing.

Gender differences appear, though in a muted way. Women were significantly less likely than men to have eaten out at work, at fish and chip restaurants, and in motorway service areas. In each case, we can surmise that men may have more opportunities to use such venues (due to their jobs and work practices), and were in these circumstances unlikely to ask women to join them for their meal. In many of the other regression equations, gender does not emerge as significant. However, a related result is of great interest. There was a gender difference in the degree to which respondents stated that 'they would like to eat out more often than they do now'. On a 5-point Likert scale ranging from Disagree Strongly (1) to Agree Strongly (5), women tended to agree more strongly than men. This was statistically significant using the chi-squared test of association and using multiple linear regression. In this linear regression, ethnicity also emerged as significant. 'Non-white' respondents tended to be more satisfied with their current frequency of eating out. Low levels of household (not personal) income were also associated with wanting to eat out more often. Our data suggest that while gender does not affect taste per se in this context, it is very relevant when considering the general opportunities to eat out.

4.2. *Non-equivalence of restaurant types*

Our predictions of who will eat in which type of venue, based solely on their socio-demographic characteristics, perform surprisingly well. This result confirms the continuing social significance of eating out. While in principle anyone with sufficient funds can visit any venue, we do find pronounced, socially patterned, forms of preference and aversion. Age, education, class, locality and income tend to be the most important differentiating factors. That such factors are more important than household composition or employment status indicates the extent to which we are examining a phenomenon which is discretionary, a matter of taste, a means of expressing group belonging.

Sociologists have long been interested in *distinction*, the aesthetic means of displaying social superiority and/or belonging (Bourdieu, 1984; see also Peterson and Kern, 1996; Peterson and Simkus, 1992). It seems that familiarity with a range of ethnic restaurants is a principal expression of such distinction in the mid-1990s (see also Warde et al., 1999; Warde, 2000). Here the educated professional metropolitan middle classes gather to extend their culinary repertoires and to develop the means to communicate competently about novel foodstuffs.

The role of age is also highly significant although not easy to interpret. Whether the general tendency of younger respondents to go out more often is a function of their stage in the life course, or whether it is a generation effect, cannot be determined

without time-series data. Fig. 1 shows that different types of eating place are frequented by people of different ages. There is a general tendency for people to eat out less as they get older, though this is crosscut by a tendency for people in their 30s and 40s to make use of particular kinds of outlet. But there are some exceptions to that trend too, with the pub restaurant and motorway service station being more appealing to older than younger Britons. Age effects probably reflect both generational and life-course factors. However, it is very likely that those young people who have developed a taste for fast foods and pizza will continue to eat such fare in later years, even while they add new tastes to their culinary repertoires. It is worth noting that the majority of respondents to the survey had eaten in fewer than 5 venue types in the least 12 months. This suggests that there is still plenty of opportunity for attracting many customers to a wider variety of experiences than they currently enjoy.

4.3. *Classifying venues*

In designing our survey we adopted a classification of venue types from previous market research. On reflection, the classification scheme is problematic. We might understand better what are the features of particular venues that make them distinctive from the point of view of their customers. What are the specific elements that differentiate one type from another?

Expansion of eating out has occurred alongside increasing specialisation of the establishments providing prepared foods. Attempts to capture the diversity of eating out places in typologies have not been particularly effective (e.g. Symons, 1993). Market research schemes in Britain, which we adopted for our survey, use hybrid criteria of cuisine, function and industrial sector in order to distinguish between cafes, ethnic cuisine restaurants, pubs, hotels and travelling services. Although this seemed to cause no difficulty of recognition among our respondents when asked whether they use particular types of place, it is difficult to impute the reasoning behind consumers' selections.

While a more coherent taxonomy would be useful, the factors involved in differentiating species are numerous. Types of commercial establishment vary in character with respect to at least five criteria: the putative primary requirements of their main clientele, the nature of the service, the elaborateness of cooking, the ostensible pedigree of the cuisine, and whether alcohol is for sale.

A first criterion is the putative primary purpose of the customer. Most obviously, the motorway service station, the railway buffet, the airport lounge, though also the works canteen and the food court in the shopping mall, are classified first and foremost by their functional role. The nature of the customer's trip, often requiring a meal to be eaten in a restricted period of time and perhaps being subsidiary to another activity like work, travel or shopping, explains the customer's presence. This functional aspect of a venue is partly reflected in its opening hours, partly by its geographical location. The special requirements of customers in such situations mean that these are not commonly the sites of the most elaborate meals, for which there are alternative forms of provision.

The practice of self-service has always characterised forms of institutional provision, the cafeteria being the generic description of a place where one had to put one's own food on a tray and take it to one's place at a table to eat. Self-service implies some, often limited, choice between items of food and implies informality. It has become increasingly common as some bar meals, fast food outlets, transport cafes and buffets increasingly invite, some would say exploit, customers to serve themselves. Levels of personal service are a matter of some concern, and are a way of distinguishing between places, not just because of the speed of service, but also by the attentiveness of staff.

A third criterion of differentiation is the elaborateness of food. Something between a snack and a light meal is sold by teashops. A meal with two, and particularly more, courses is likely to be associated with a restaurant. The length and complexity of the meal typically served is a further criterion for determining how an establishment should be described.

Eating out places are also differentiated by the style in which they cook their food. Most typically this is indicated in terms of its ethnic cuisine of origin — Indian, Italian, English. But some venues are depicted by their tendency to specialise in preparing a particular ingredient, as with steakhouses, by a mode of cooking, as with the carvery, and by a core type of dish, a pizza, burger or pancake for example. These restaurants are defined not by cuisine, but by the type of dish which dominates the menu.

Finally, the current pattern of provision arises in significant part from Britain's tortuous handling of alcohol consumption policy. Alcohol provisioning was itself a fairly specialised activity until recently with pubs usually selling snacks at most. One way of distinguishing a cafe from a restaurant has been that the latter will serve alcohol to the diner, while the former will not.

In sum, these several dimensions of differentiation between commercial outlets make it unlikely that any single classificatory scheme would serve all analytic purposes. Nevertheless, it is important to be clear about the principal *specie differentiae*. We would anticipate that the analysis of the socio-demographic characteristics of customers of establishments distinguished along these dimensions would generate more powerful predictions of their appeal to different client groups.

4.4. *Niches and post-Fordism*

The potential range of ways of combining these various elements (a self-service pizza for the rapid lunch, a quick meal in a place without alcohol, formal oriental banquets requiring sustained concentration, a casual evening meal as adjunct to drinking in a pub) creates much opportunity for the commercial sector to appear to innovate, promoting novelty, difference and brand distinctiveness through thematising particular meal experiences. *Prima facie*, variety and options have increased. Such tendencies might lend support to general theories of post-Fordism, the idea that provision becomes increasingly differentiated and flexible to satisfy customers who are more discerning, more concerned with the aesthetic aspects of lifestyle, and more likely to demand items tailored to their individual preferences. However,

counter-trends operate. Capital concentration continues to create chains of outlets, often franchised, which provide a standardised branded product using industrial production techniques redolent of the car assembly plant. MacDonalds, in 1997, reputedly had 21,000 restaurants around the world (Guardian, 26 June 1997) dedicated to providing a virtually uniform meal experience. A large segment of the catering industry is oriented towards producing nothing more than acceptable nourishment to people with an immediate need to eat. Many independent outlets have the same suppliers of the same pre-prepared foods which are simply reconstituted at the retail site. The accelerating routinisation of new fashion means that successful innovations are rapidly copied. Thus it is not without grounds that Wood (1994, 1995) for example, complained about the UK tendency towards the standardisation and indifferent quality of meals out. It is clear that the catering industry offers many examples both of mass production and of specialisation and differentiation. But, on balance, the degree of systematic social selectivity operating between different types of outlet, even when crudely categorised as in this study, suggests that most people readily distinguish and exercise preferences between them.

5. Conclusion

This paper has provided a hitherto unobtainable degree of detail about the social bases of familiarity with different types of commercial meal experience. The statistical techniques promise more precise and clear understandings of the social characteristics which predispose people to use different sites for eating out. The complex interactive effects of education, income, occupation, age, ethnicity and gender have been usefully simplified for analytic purposes. A more sophisticated classification of sites might be expected to disclose even stronger indications of socially differentiated tastes and, therefore, of de facto niche markets.

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