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Changing Colours: Spatial Assimilation and New Racial Minority Immigrants*

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Abstract: The social complexion of Canadian cities have been irreversibly altered since the 1960s as new waves of visible minority immigrants have replaced traditional white, European, migrant flows. For Canada and other nations with little prior history of "racial" diversity, this development raises the prospect of racialized urban *ghettoes* along American lines. We address this question with "locational attainment" models estimated with census micro-data for Toronto, the only Canadian city with a large black population. Unlike previous studies, we conclude that residential settlement patterns among Blacks and South Asians, like those of recent non-English speaking white immigrants, conform rather well to the *immigrant enclave* model associated with conventional spatial assimilation theory. As anticipated by Logan, Alba and Zhang, however, early success in the housing market among Chinese immigrants is associated with the formation of more enduring *ethnic communities.*

Résumé: L'arrivée de nouvelles vagues d'immigrants issus de minorités visibles et le départ d'une immigration traditionnellement européenne et blanche, ont irrémédiablement modifié la composition sociale des villes canadiennes. Pour le Canada et les autres sociétés faiblement marquées dans leur histoire par la diversité « raciale », ce développement a soulevé la possibilité de la création de *ghettos* urbains aux teintes raciales comparables à ceux observés aux États-Unis. Nous évaluons ce point à l'aide de modèles d' « accomplissement spatiale » élaborés à partir de microdonnées du recensement pour la ville de Toronto, la seule ville canadienne ayant communauté noire importante. Contrairement à des études antérieures, nous sommes arrivés à la conclusion que le processus d'établissement spatial des immigrants Noirs et de l'Asie du Sud, ainsi que celui des immigrants récents blancs ne s'exprimant pas en anglais, se conforment plutôt bien au modèle d'*enclave*

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d'immigrants associé avec le modèle classique de l'assimilation spatiale. Tel qu'anticipé par Logan, Alba et Zhang, les premiers succès dans le marché de l'habitation des immigrants chinois sont associés avec une plus grande perpétuation des communautés ethniques.

For students of inter-group relations, Toronto and cities like it provide a set of unique historical experiments for the analysis of the formation of multi-racial communities. From the fifties through the seventies, the city's Anglo-Saxon and Northern European ethnic mix was transformed with the arrival of successive waves of Southern European migrants. Until the 1970s, however, few residents of Toronto had much direct experience of "race," routine daily encounters with persons distinguished by their skin colour.[1] All this has changed since the 1970s when the source countries for immigrants to Canada shifted from Europe to Asia, Africa, the Caribbean and Central and South America. Between 1981 and 1996, the estimated "visible minority" (i.e. non-white) population of Toronto rose from 14 to 32 percent and the percentage of children (<18) from visible minority families from 16 to 38 percent.[2]

Periods of initial contact between groups are crucial in shaping subsequent patterns of development. When the initial contact is through conquest (North American aboriginals) or subjugation (American blacks), the resulting ethnic and racial hierarchies tend to be enduring and assimilation is difficult (Lieberson, 1980). Later waves of voluntary migrants who share attributes of previously subjugated minorities (e.g. recent black migrants to the United States) may find themselves willy-nilly incorporated into a pattern of "segmented assimilation" (Portes and Zhou, 1993), reproducing now well-institutionalized ethnic and racial hierarchies inherited from the past. Unlike U.S. cities, where racial and especially black-white divisions have deep historical roots, the social organization of Toronto's visible minorities in urban space has been created virtually *ex nihilo* since the 1970s and is arguably still evolving. Although residential segregation of visible minorities is lower in Canada than in the U.S. (Fong, 1996), Fong and Wilkes (forthcoming) caution that the combination of differences in skin colour, important cultural differences and a different economic environment from that faced by earlier migrants may be creating a new urban "vertical mosaic" based on colour.

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1. "Racialization" — i.e. the imputation of intrinsic *genetic* "failings" to new arrivals by those who had arrived before them — is not, of course, contingent on differences in skin colour and was a common experience of 19th century Irish Catholics and, later, of Eastern and Southern Europeans, particularly Jews.
2. As discussed below, changes in the method of identifying "visible minorities" in the Canadian Census means comparisons are not exact. Comparison of 1991 and 1996 data, however, indicates that estimates of the visible minority population for years prior to 1996 would have been somewhat lower had the 1996 methodology been used.

It is too early in the process of incorporation to draw any definitive conclusions on these questions; this will have to wait for the second and even third generations to mature. Nonetheless, we can ask whether the mechanisms and familiar patterns associated with the traditional models of migrant incorporation are at work with these new migrant groups. We begin by revisiting the conventional expectations of spatial assimilation theory and its critics and test these expectations with locational attainment models estimated with the full micro-data base from the 1996 census of Canada. Drawing on Logan, Alba and Zhang's (2002) distinction between *immigrant enclaves* and *ethnic communities*, we attempt to isolate some of the preconditions for their formation and their implications for the residential experience of first-generation migrants.

Immigrant Enclaves, Ethnic Ghettoes and Ethnic Communities

The classical model of migrant residential incorporation, elaborated in spatial assimilation theory, has theoretical roots in neo-classical economics and historical roots in the urban experience of earlier migrant waves (Fong and Gulia, 1999; Massey and Denton, 1985). Though much critiqued, the spatial assimilation model, like the human capital model in economics, continues to provide the "benchmark" model (or "ideal type" to use Weber's term) against which real world departures from expectations are identified and evaluated.

The assumption of the standard model is that new migrants are young, with limited resources, who cluster together in low-income *immigrant enclaves* (Logan, Alba and Zhang, 2002) for both economic and social reasons. As they acquire greater economic resources, they convert these resources into higher quality housing and neighbourhoods with more and better amenities. Since the non-immigrant majority usually dominates such areas, the move to better housing is usually associated with exit from the ethnic neighbourhood, a transition facilitated by linguistic and other forms of acculturation. Immigrant neighbourhoods in this standard model are transitional neighbourhoods, "starting points" for new arrivals. These *immigrant enclaves* (Logan, Alba and Zhang, 2002:299), however, are left behind as long-term migrants acquire the requisite financial resources and cultural and social skills to navigate the larger society.

Critiques of spatial assimilation theory are typically associated with important historical changes that are thought to limit its applicability to more recent immigrant populations. Unlike earlier, mainly European, migrant waves, contemporary immigrants come mainly from Asia, Africa, the Middle East, the Caribbean and Central and South America. For many receiving nations among the traditional "settler societies" (Australia, Canada) and now in Europe, the appearance of large numbers of "people of colour" (non-whites) on the urban

landscape is an historical novelty dating from the 1960s or later.[3] The result is considerable scepticism that patterns of spatial assimilation familiar from the past will be reproduced among contemporary immigrants. Urban concentrations of poor Bangladeshis in Birmingham, Turks in Rotterdam and Berlin, Algerians in Paris and Blacks in Toronto readily invoke images of the enduring racialized black *ghettoes* characteristic of American cities (Musterd and Winter, 1998) rather than the transitory immigrant enclaves associated with the spatial assimilation model. Urban American blacks do move to more affluent neighbourhoods as their incomes rise but tend to be concentrated in black neighbourhoods that are less affluent than those of comparable whites (Alba, Logan and Stults, 2000:591). So-called "place stratification" theory (Logan and Molotch, 1987) highlights the constraints on choice that may result when majority groups use mechanisms of exclusion to maintain social distance between themselves and ethnic or racial minorities.

A second historical shift points in a similar direction but for very different reasons. Whereas the old migrant waves were often selected from the most disadvantaged sectors of European society, present day immigrants from the developing world are often selected for their high levels of education and/or occupational skills. Logan, Alba and Zhang (2002) hypothesize that segregation by choice — and the formation of more enduring *ethnic communities* — will in fact be more prevalent among immigrant groups with high levels of human and financial capital who are able simultaneously to realize their preferences for higher quality neighbourhoods *and* a culturally homogeneous environment early in their immigrant history. Spatial assimilation theory assumes that the acquisition of both the requisite cultural capital (cultural assimilation) and the financial resources needed to move to better housing are highly correlated in time. When the correlation breaks down — that is, when the time trajectory of the housing careers of immigrant groups departs from that expected — very different outcomes may result. More saliently, such groups are likely to have more desirable "starting points" — better neighbourhoods with higher quality housing — that long-term, more successful, migrants will be less anxious to leave behind. By contrast, they argue, the areas of concentration established by less affluent migrant groups, such as Mexican immigrants to the U.S., are less likely to hold their more successful and more acculturated members; these areas, then, may look more like immigrant enclaves.

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3. Both Australia and Canada of course have long, and sad, experience with non-white aboriginal populations. Historically, however, aboriginals did not reside in large urban areas and were not part of the routine world of the European immigrants to large urban areas.

In a related analysis Borjas (1998) finds that the negative correlation between a person's skills (human capital) and ethnic residential segregation is considerably weakened for members of migrant groups with high levels of human capital. The incentives for more skilled, and successful, immigrants to exit from the ethnic neighbourhood are attenuated by the higher attainments of their co-ethnic neighbours.

Testing Spatial Assimilation Theory

To test such claims, urban ecologists estimate "locational attainment" models in much the same way that human capital models in economics and status attainment models in sociology portray how individuals and groups convert their resources into earnings and position in the labour market (Alba, Logan and Stults, 2000; Rosenbaum and Friedman, 2001). Locational attainment models take the form:

$$Y_j = a + b_1 X_{1ij} + b_2 X_{2ij} + \ldots\ldots + e_{ij}$$

where Y is a neighbourhood (i.e. a census tract) characteristic and the Xs are individual or household level characteristics that are likely to condition household preferences for particular neighbourhoods. The subscript *j* indexes neighbourhoods and *i* the families who reside in them. As in earnings and status attainment models, the question is whether group differences in neighbourhood outcomes can be accounted for by compositional differences in economic resources, assimilation status and stages in the family and life course whose effects are anticipated by spatial assimilation theory.

The estimation of locational attainment models has traditionally been constrained by the fact that small area census data have only been available in aggregate form for reasons of data confidentiality. Here, we estimate locational attainment models directly with micro-data from the full 20 percent sample of households asked to complete the long version of the 1996 Census of Canada, the first analysis of this sort to do so. Working directly with the underlying micro-data also provides us with considerably more latitude to experiment with alternative variable and model specifications than earlier studies in this genre.

We limit our attention to Toronto since it is the only Canadian metropolis with a large black population.[4] Blacks generally report higher levels of perceived discrimination than other minorities (Breton, et al., 1990; Dion, 1989, 2001) making Toronto a critical "test case" both for our analysis and for the future of race relations in Canada.

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4. In 1996, Blacks made up 6.5 percent of Toronto's population, 3.7 percent of the population of Montreal and less than 1 percent of Vancouver's population.

Previous Canadian studies, notably by Eric Fong and his colleagues, have concluded that the spatial assimilation process among new racial minorities is indeed different and departs significantly from the expectations of spatial assimilation theory. Notably, Fong and Wilkes (1999) using aggregate data to estimate locational attainment models conclude that neighbourhood outcomes among Asians and especially Blacks are only weakly or even negatively associated with their income and educational attainments. Blacks and Asians with comparable incomes and education levels to those of white immigrants, they report, not only live in poorer neighbourhoods but also show no improvement in neighbourhood attainments as income, education and time since immigration increase. In the case of Asians, and especially the Chinese, they interpret their results as indicative of the formation of strong ethnic communities and, for Blacks, to discrimination in the housing market.[5]

In a similar vein, Fong and Wilke's (forthcoming) analysis of ethnic segregation make them sceptical that declining residential segregation among previous waves of European migrants will be replicated between these older groups and the new visible minorities. Our analysis of the underlying census micro-data sheds new light on these issues and opens these conclusions from previous research to question.

Following the lead of Alba, Logan and Stults (2000) and Logan, Alba and Zhang (2002), we estimate models of the type specified in Equation 1 (above) for three neighbourhood outcomes: neighbourhood quality indexed by median neighbourhood income, the percentage of whites in the neighbourhood and group concentration, the group-specific share (percent own minority) of the neighbourhood population.

Our attention in the first case is focused on differences between white immigrants and Toronto's three largest racial minorities, Blacks, Chinese and South Asians who, together, account for about three-quarters of Toronto's "visible minority" population. Are more affluent and acculturated minority immigrants as likely to have affluent neighbours as comparable white immigrants? Are there emergent differences *among* minorities comparable to the well-documented "colour hierarchy" in neighbourhood attainments found among blacks, Hispanics and Asians in U.S. cities (Alba, Logan and Stults, 2000)?

Our second question concerns differences among minorities in their propensity to form concentrated neighbourhoods, on the one hand, and to share

5. Evidence for housing discrimination against visible minorities in Toronto and in Canada generally is almost exclusively based on discrimination against low-income families seeking accommodation in the rental market. Little is known about discrimination in the retail home purchase or credit (i.e. mortgage) markets (Novac et al., 2002).

neighbourhoods with whites, on the other. Do minority neighbourhoods have the characteristics of the immigrant enclave that the more successful and acculturated leave behind (or avoid) as spatial assimilation theory suggests? Or, are some minorities more likely than others to attract and hold on to their more successful and more acculturated members and, if so, for what reasons? In the discussion, we summarize parallel results for two earlier waves of (white) European immigrants (estimated with 1981 data) — the Italians and Portuguese — and highlight their implications for our findings.

To determine whether differences in neighbourhood outcomes fit the expectations of the spatial assimilation model our analysis proceeds in two steps. Following usual practise (see Fong and Wilkes, 1999; Logan, Alba and Zhang, 2002), we begin by highlighting differences in the sign and size of the regression coefficients to identify correlates that depart from the expectations of spatial assimilation theory.

In the sequel, we go on to consider outcomes. The aim is to answer the usual *ceteris paribus* question: What are the expected neighbourhood outcomes for immigrants with *similar* characteristics? Do immigrants with similar levels of resources and at similar stages in their immigration history reach similar outcomes in terms of neighbourhood quality, spatial assimilation with majorities, or co-residence with families from their own minority group? To answer questions of this sort, we use our regression models to simulate predicted outcomes for families with standardised sets of characteristics (see Fong and Wilkes, 1999; Alba, Logan and Stults, 2000).

Methodological and Measurement Issues

Units of Analysis

"Neighbourhoods" are defined at the level of the census tract. Census tracts (CTs) are small geographic units representing neighbourhood-like communities in census metropolitan areas (CMAs) and consist on average of approximately 4000 persons.

Our regression models are estimated with economic families (all persons related by blood or marriage residing in the same household) as the unit of analysis rather than individuals. Weighting the regression analysis by population (i.e. all individuals) would give greater weight to larger households and since households are the unit that "moves", this is a result we want to avoid.[6]

6. Our results are based on analysis of approximately 17,845 black, 18,052 Chinese, 16,349 South Asian and 216,630 white economic family units from the 20 percent sample of the Toronto CMA in 1996.

Dependent Variables

Since median neighbourhood income is an aggregate of all incomes of the families who live in a neighbourhood, using family income (see below) to predict neighbourhood income might at first glance appear to verge on tautology. Most neighbourhoods, however, are economically heterogeneous (Jargowsky, 1996, 1997; Myles, Picot and Pyper 2000). Many low-income families live in middle class neighbourhoods and vice versa. In effect, locational attainment models where median neighbourhood income is the outcome answer questions about who lives in neighbourhoods more or less affluent than expected based on family income alone.

The percent white and percent "own visible minority" in a neighbourhood, commonly referred to as "exposure" and "isolation" measures respectively, index the probability that majorities and minorities are likely to physically "confront" one another by virtue of sharing a common tract of residence (Massey and Denton, 1987).[7] We require both measures since greater exposure to whites implies lower exposure to *all* visible minorities but not necessarily to one's *own* minority.

Model Estimation

Models predicting aggregate-level outcomes as a function of individual or family characteristics will generate autocorrelation and underestimation of standard errors since multiple cases (all families in the same neighbourhood) are assigned the same value on the dependent variables (Rosenbaum and Friedman, 2001: 342). To address this problem, we use feasible generalized least squares (Greene, 1997) to generate standard errors that take account of correlated error terms within neighbourhoods. Standard errors estimated with FGLS are up to four times larger than those estimated with OLS. Given the large sample size, however, the two procedures yield identical results except in the case of very small, and substantively trivial, parameters.

Because of "floor" and "ceiling" effects, the use of percentages as dependent variables may violate the usual assumptions of the linear regression model. Accordingly, we also estimated models using a logit transformation of the dependent variable for percent white and percent of own minority group. Since the latter produced virtually identical substantive and statistical results, we present our results expressed in percentages for ease of interpretation.

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7. Such measures are sensitive not only to levels of residential segregation but also to group size. Here we take advantage of the fact that Blacks, Chinese and South Asians represented approximately the same share of Toronto's population in 1996. Consequently, as shown below, exposure and segregation measures yield identical conclusions.

Independent Variables

Our models incorporate measures of economic resources, assimilation status and stages in the family and life course whose effects are anticipated by spatial assimilation theory. All measures are incorporated as dummy variables to capture important non-linearities in the relationships. The variable categories and their values are shown in Table 1 (below).

Socio-economic resources are expected to be positively associated with neighbourhood income and negatively associated with residence in an immigrant enclave. They include family income, education (for the highest earner in the family), and home ownership. We adjust family income with an equivalence scale to reflect differences in family size and economies of scale providing a better indicator of a household's current budget constraint in their choice of housing.[8] Educational differences may produce differences in housing preferences but, more importantly, they index differences in expected income flows in the future that affect both decisions to purchase a home and credit-worthiness in the mortgage market.

We include home ownership as a determinant of neighbourhood outcomes since it indexes otherwise unmeasured differences in economic resources (Alba, Logan and Stults, 2000; Rosenbaum and Friedman, 2001). Variations in the "housing careers" of different migrant groups with otherwise similar characteristics, however, are part of the spatial assimilation process, not simply exogenous determinants of it, a point to which we return in the discussion.

Measures of *assimilation status* typically include measures of language assimilation and period of immigration. Although English is the majority language in Toronto (less than one percent of families claim to speak French at home), our preliminary analyses indicated no differences in outcomes between those claiming either official language as their home language. All other families were divided into two groups: those who reported some "other" language spoken at home and bilingual families who reported using both an official language and some other language.

Following standard practise, we control for the number of years since the highest wage earner (the "household head") immigrated to Canada. However, since differences among cohorts at a single point in time are the composite result of assimilation, cohort and period effects, they should not be interpreted as reflecting the experience of the same cohort as it moves through time.

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8. The equivalence scale is the "central variant" proposed by Wolfson and Evans, 1990). The first person is assigned a weight of 1.0 and each additional adult a weight of 0.4. The first and each subsequent child is assigned a weight of 0.3 except in single parent families where the first child is assigned a weight of 0.4.

Table 1. Values For Independent Variables (Percentages), Toronto, 1996

	All Groups	*Whites*	*Blacks*	*Chinese*	*South Asian*
1. Family Income					
Less than $10,000	10.7	7.3	25.7	19.5	18.3
$10,000–$19,000	20.2	18.1	25.9	24.3	27.3
$20,000–$29,000	19.1	18.5	20.3	19.4	22.2
$30,000–$39,000	17.2	18.2	13.7	14.5	14.6
$40,000–$49,000	12.2	13.6	7.6	9.5	8.2
$50,000 +	20.5	24.4	6.8	12.8	9.4
2. Education					
Less than high school	25.3	26.1	23.7	25.0	22.6
High school	12.0	12.0	12.8	11.9	11.8
Some post-secondary	39.3	38.7	53.3	30.8	38.0
University	23.5	23.2	10.2	32.3	27.6
3. Homeownership					
Renter	40.9	37.0	70.9	25.5	49.1
Owner	59.2	63.0	29.1	74.5	50.9
4. Immigration Status					
0–10 years	15.6	5.4	34.1	48.6	50.1
1–20 years	8.6	3.9	20.4	23.8	20.0
20 + years	25.7	25.5	35.4	21.4	27.6
Canadian born	50.1	65.2	10.1	6.2	2.2
5. Home Language					
Non-official language	20.4	12.3	9.3	74.1	43.3
English/French	76.6	85.8	88.6	21.6	47.5
English/French and other	3.1	1.9	2.1	4.3	9.2
6. Family Composition					
1 adult, with children	4.9	4.0	17.4	2.4	3.5
1 adult, no children	26.8	29.6	28.0	15.1	11.8
2 or more adults, no children	36.3	38.7	23.4	36.2	28.7
2 or more adults, with children	32.0	27.8	31.2	46.2	56.0
7. Age					
Less than 30	12.6	11.6	19.9	11.3	14.3
30–39	27.7	25.6	32.3	32.7	33.8
40–49	24.0	22.8	23.1	31.4	28.5
50–59	14.6	15.0	15.3	11.7	14.6
60 & +	21.2	25.0	9.4	12.8	8.9

Family and life course status includes measures of family composition and age of the highest wage earner.[9] In earlier models, we also included the sex of the highest income earner (household "head") but in all cases the coefficients were substantively trivial and statistically insignificant. This does not mean that there are no important differences between male and female-headed households but rather those differences are captured by other compositional differences in the models.

The compositional differences identified in Table 1 would lead us to anticipate substantial differences in neighbourhood outcomes. Given their family characteristics, Blacks are especially likely to be at a disadvantage in both the labour and housing markets. Black household heads are younger, more likely to be lone parents, have somewhat lower incomes and are much less well educated than South Asians and especially the Chinese. Black families also have very low levels of homeownership whereas Chinese families are exceptionally "house rich" (Balakrishnan and Wu, 1992; Darden and Kamel, 2000; Ray and Moore, 1991; Skaburskis, 1996).

However, black families also have characteristics that are likely to mitigate against high levels of residential concentration. On average, they have been in Canada longer than the Chinese and South Asians. The vast majority come from former British colonies and use English as their home language compared to a quarter of Chinese families and about half of South Asian families.

The high level of success of the Chinese in the housing market combined with high levels of education and low levels of language assimilation provide an opportunity to test Logan, Alba and Zhang's claim that segregation by choice — and the formation of more enduring *ethnic communities* — will be more prevalent among immigrant groups that are able to satisfy both their housing and cultural preferences early in their immigrant history. For the average Toronto family, the transition from renter to owner is almost invariably associated with moving to a more affluent neighbourhood[10] and Chinese families make the transition from renting to owning remarkably early in their immigrant history. Approximately 70 percent of Chinese families who

9. Our measures of family composition reflect the use of the economic family as the unit of analysis distinguishing between single adult and multi-adult families and between those with and without children less than 18 present. Thus a non-married "lone parent" is counted as living in a multi-adult family if s/he resides with one or more other adults related by blood or marriage (e.g. a parent, brother or sister)

10. This result reflects historical zoning practises that have created a high level of *de facto* economic segregation between neighbourhoods with high density rental accommodation and neighbourhoods of owner-occupied, single family, dwellings. In 1996, the correlation between the percentage of renters and median family income in Toronto census tracts (n=807) was –.57. A non-linear specification would provide an even better fit.

have been in Canada for less than ten years have become homeowners compared to a third of white and South Asian migrants and only 12 percent of black migrants. The empirical test is whether among the Chinese the relationships between individual and family characteristics, on the one had, and neighbourhood outcomes, on the other, depart in significant ways from those anticipated by spatial assimilation theory.

Descriptive Results

We begin in Table 2 by identifying the *explananda* for our analysis, differences in neighbourhood outcomes with respect to neighbourhood quality, spatial assimilation with whites, and co-residence with families from the same minority group. Panel 1 shows the median neighbourhood income of the average minority family relative to the average white family. There are few surprises here. Fong and Gulia (1999) and Fong and Wilkes (1999) have shown that non-white minorities in Canadian municipalities live in lower quality neighbourhoods than whites and that Blacks tend to live in neighbourhoods surrounded by the worst social environments. As in the U.S., there is evidence of an emergent "colour hierarchy" with respect to neighbourhood income. Median neighbourhood income of the average black family is only 79 percent that of the average white family compared to 85 and 91 percent for South Asian and Chinese families respectively. This colour gradient, however, is decidedly more modest than that of similar U.S. cities.[11]

As indicated by the index of dissimilarity (D), however, Blacks are less segregated from whites (D = .47) than the Chinese (D=.56) and South Asians (D = .51) and are somewhat more likely to have white neighbours (55 percent) than either Chinese (50 percent) or South Asians (52 percent), reversing the pattern found in U.S. cities.[12] The Chinese are the most segregated minority not only from whites but also from other visible minorities (D = .50). As a result, levels of neighbourhood concentration are much higher among the Chinese. The average Chinese family lives in a neighbourhood where 24 percent of the families are co-ethnics. In contrast, South Asians and especially Blacks live in neighbourhoods with fewer members of their own minority (16 percent and 13 percent respectively) but with more families from other minorities.

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11. In 1990, the average black family in the five high immigration cities analysed by Alba, Logan and Stults (2000) lived in neighbourhoods where the median income was only 63 percent that of the neighbourhoods of the average white family and the corresponding figures for Hispanics and Asians were 72 percent and 92 percent, respectively.
12. The average black family in the five U.S. cities analysed by Alba, Logan and Stults (2000) lives in a neighbourhood that is only 33 percent white compared to Asians who live in neighbourhoods that are 55 percent white. Fong (1996) has shown that levels of segregation from whites in Canadian municipalities are quite similar across visible minority groups.

Table 2. Median Neighbourhood Income Relative to Whites and Summary Statistics of Segregation and Exposure by Visible Minority Status, Toronto, 1996

1. Median Neighbourhood Income Relative to Whites

Blacks	0.79
Chinese	0.91
South Asians	0.85

2. Exposure

	To Whites	*To Own Visible Minority*
Blacks	0.55	0.13
Chinese	0.50	0.24
South Asians	0.52	0.16

3. Segregation (Index of dissimilarity) From

	All Others	*Whites*	*Other Visible Minorities*
Blacks	0.39	0.47	0.3
Chinese	0.53	0.56	0.5
South Asians	0.43	0.51	0.31

The implications of seemingly small differences in segregation levels for Toronto's urban landscape are striking (Table 3). The residential patterns of Toronto Blacks are those one would associate with the spatial assimilation model and the immigrant enclave. Most "black neighbourhoods" are quite poor but relatively few Blacks live in these neighbourhoods. Only 38 census tracts have a black population that exceeds 20 percent and these neighbourhoods account for only 17 percent of Toronto's black population. The Chinese, in contrast make up 20 percent or more of the population in 83 tracts, accounting for 51 percent of the Chinese population. Half of the black population lives in neighbourhoods with fewer than 10 percent Blacks while only a third of the Chinese live in tracts with fewer than 10 percent of their co-ethnics. Relative to black neighbourhoods, those with a substantial Chinese population are relatively affluent suggesting they are more likely to retain their more successful members. The South Asian distributions fall between these extremes. These gross differences in neighbourhood outcomes suggest that rather different processes may be at work but is it so? To answer this question we turn to the results of our regression models.

Regression Results

The full regression results are shown in Appendix tables 1–3. Unless otherwise indicated by the superscript, all coefficients are significant at the .001 level. Given the large sample size, the vast majority of coefficients are statistically significant and those that are not are also substantively trivial.

Table 3. The Neighbourhood Distribution of Blacks, Chinese and South Asians by Percent Own Minority, Toronto, 1996

	Number of Census Tracts	*% of Own Group Population*	*Neighbourhood Income (1,000s)*
Percent Black			
<10%	675	51%	32.9
10–19%	98	31%	22.6
20–29%	26	12%	18.9
30–39%	7	6%	17.1
40–49%	1	1%	12.5
50%+	0	0%	–
Total	807	100%	
Percent Chinese			
<10%	645	31%	31.6
10–19%	79	18%	29.7
20–29%	35	14%	31.4
30–39%	24	13%	26.8
40–49%	12	9%	28.3
50%+	12	15%	26.2
Total	807	100%	
Percent South Asian			
<10%	628	34%	32.6
10–19%	118	32%	27.3
20–29%	41	19%	23.2
30–39%	16	12%	23.2
40–49%	4	3%	22.6
50%+	0	0%	–
Total	807	100%	

Differences in *socioeconomic resources* are at the heart of spatial assimilation theory. In Massey and Denton's (1985:94) summary statement the key claim of spatial assimilation theory is that "as social status rises ... minorities attempt to convert their socioeconomic achievements into an improved spatial position, which usually implies assimilation with majority groups." With few exceptions, the results are consistent with this expectation. The exceptions, however, prove to be important.

Neighbourhood Income

To make the presentation manageable, we summarize the regression results by presenting differences for selected values of the independent variables. Because the choice of contrasts is arbitrary, our discussion also pays attention to non-linearities where they prove to be important. In general, however, the choice of contrasts does not affect the qualitative conclusions.

As Alba, Logan and Stults (2000:604) point out, because of the intercorrelations among the measures of socio-economic resources (e.g. education, income), it is also useful to consider their combined effects on neighbourhood outcomes. To illustrate, among whites, a university degree, an annual (adjusted) family income between $40,000 and $49,000 plus ownership of a home are associated with an increase of $8200 in median neighbourhood income above the levels expected for a white family where the head has a high school education, a family income of less than $10, 000, and is renting (Table 4). Although starting from very different base values (intercept differences that we take account of in the following section), results for Blacks and South Asians are similar. The difference in neighbourhood income between more and less affluent black families is $9700 and, among South Asians, $9200.

The gains in neighbourhood income for Chinese families are more modest ($6800) and, more importantly, the underlying components differ. Among Blacks and South Asians, higher family income leads to gains in neighbourhood income as large or larger than those of whites. Among the Chinese, in contrast, there is only a modest association between family and neighbourhood income and the differences only become substantial for the highest ($50,000+) income families (Appendix Table 1) implying that economic segregation between more and less affluent Chinese is modest. Instead, differences in neighbourhood attainment among Chinese are almost entirely due to differences in educational attainment and homeownership.

Table 4. Illustrative Effects of Spatial Assimilation Variables on Neighbourhood Income, Toronto, 1996

	Whites	*Blacks*	*Chinese*	*South Asian*
Economic Resources				
$40–$49K vs. <$10K	2,860	3,350	838[a]	3,127
University vs. High School	2,543	1,597[a]	2,013[a]	1,798
Homeowner vs. renter	2,813	4,765	3,968	4,289
Total	8,216	9,712	6,819	9,214
Assimilation Status				
Home Language English/French vs. Other	3,447	2,220	1,841	1,241
Immigrated > 20 years vs. <10 years	50[c]	1,352[a]	457[c]	1,705[c]
Family and Life Course				
2+ adults with children vs. 2+ adults no children	1,861	824	949	1,028
Age 50–49 vs. Age <30	1,538	-410[c]	1,489	173

Note: p<.001 unless otherwise indicated. *a*, p <.01; b, p < .05, c, p = n.s.

Relative to whites, making the transition from renter to owner is especially important for all three minorities. For whites, homeownership is associated with a difference in neighbourhood income of $2800 compared to $4000 for the Chinese, $4300 for South Asians and $4800 for Blacks.

Differences among English and non-English speakers are decidedly larger among whites than among visible minorities, highlighting the fact (see below) that for white English-speaking migrants to Canada (mainly from the U.K. and the U.S.), neighbourhood assimilation is virtually instantaneous.

Whereas among whites, differences in socio-economic resources and other characteristics account for all of the differences in neighbourhood income between recent and long-terms immigrants (compare models with and without controls in Appendix Table 1), recent black and South Asian migrants (and Chinese immigrants who arrived 10–19 years ago) live in less affluent neighbourhoods net of other characteristics, a result we attribute in part to the large number of refugee claimants in these immigration cohorts.

The underlying coefficients also indicate that among whites and Chinese, but not among Blacks and South Asians, older households live in more affluent neighbourhoods than younger households. If we are correct in our assumption that age is in part a proxy for unmeasured differences in wealth, this suggests very different patterns of savings and accumulation between whites and Chinese, on the one hand, and Blacks and South Asians on the other.

Visible Minority Neighbourhoods

Is rising affluence associated with residence in majority-dominated neighbourhoods as spatial assimilation theory suggests? For Blacks the answer is clearly yes (Table 5).

Among Blacks, the combined effects of higher income and education plus home-ownership are associated with a substantial increase (+ 10 percentage points) in the number of white neighbours that is more or less matched by a corresponding decline (–7 percentage points) in the number of black neighbours. The ethnic "trade-off" for affluent South Asians is more modest, an 8 percentage point increase in the number of white neighbours and a 3 percentage point decline in the number of South Asian neighbours.

Among the Chinese, in contrast, the effects of greater socio-economic resources are largely offsetting. High income is associated with having fewer Chinese and more white neighbours but the effect of education is modest. More importantly, homeownership is associated with having fewer white neighbours and substantially more Chinese neighbours (almost 5 percentage points). Whereas black homeownership is associated with *exit* from neighbourhoods with a substantial black population, for Chinese families purchasing a home is a pathway *into* the ethnic community.

Table 5. Illustrative Effects of Spatial Assimilation Variables on Proximity to Whites and Own Visible Minority

	Proximity to Whites ("Exposure")				*Proximity to Own Group ("Isolation")*		
	Whites	**Blacks**	**Chinese**	**South Asian**	**Blacks**	**Chinese**	**South Asian**
Economic Resources							
$40–$49K vs. < $10K	3.2	3.5	3.1	3.2	−2.9	−3.7	−1.9
University vs. high school	2.5[a]	4.2[a]	2.1[c]	3.7[b]	−2.1[a]	−0.4[c]	−2.1[a]
Homeowner vs. renter	4.0	2.8	−2.4	0.7	−2.3	4.7	0.9
Total	9.7	10.5	2.8	7.6	−7.3	0.0	−3.1
Assimilation Status							
English/French vs. Other	3.7	3.5	6.5	5.2	−2.7	−6.0	−4.1
Immigrated > 20 years vs. < 10 years	0.2[c]	1.2[a]	5.4[b]	3.7[c]	−1.4[b]	−4.2[b]	−1.9[c]
Family and Life Course							
2+ adults with children vs. 2+ adults no children	1.7	−1.1[b]	0.7[c]	0.5[c]	0.7	−0.4[c]	−0.4
Age 50–49 vs. age <30	0.9[b]	−1.4[c]	1.9[b]	0.6[c]	−0.1[c]	−0.9[c]	−1.4

Note: p<.001 unless otherwise indicated. *a*, p <.01; *b*, p < .05, c, p = n.s.

Language and period of immigration play an important role in explaining the racial/ethnic composition of neighbourhoods for South Asians and among the Chinese they dominate the results. For the Chinese, language assimilation and period of immigration account for a difference of +12 percentage points (compared to 5 percentage points for Blacks) in the number of neighbours who are white that is almost matched by a corresponding decline (–10 percentage points) in the number who are Chinese. Chinese families who use a mixture of Chinese and English at home are also less likely to live near Chinese neighbours (Appendix Table 3), the only instance in our analyses where dual language usage at home has a significant effect.

By conventional standards based on the size and signs of the coefficients, the spatial assimilation model does relatively well in accounting for residential patterns of minority immigrants although the mix of factors differs across groups. The story for Blacks is straightforward and is mainly driven by socio-economic factors. As economic resources increase, black families convert these resources into an improved spatial position (higher income neighbourhoods) that results in assimilation with majority groups (whites) and fewer black neighbours. Socio-economic factors also play a large role among South

Asians but assimilation status, especially language assimilation, has large effects on their propensity to live near whites and other South Asians. Among the Chinese, home language and period of immigration dominate and socio-economic factors play only a modest role in accounting for residence in an ethnic neighbourhood and the propensity to have white neighbours.

The Chinese results, however, also pose several anomalies for the conventional view. First, the association between family income and neighbourhood income is negligible. Equally striking, homeownership has a negative effect on the propensity to live near whites and a strong positive effect on the percentage of Chinese neighbours. Contrary to the expectations of the spatial assimilation model, success in the housing market reinforces rather than weakens the formation of ethnic neighbourhoods. For the Chinese, it appears, the ethnic neighbourhood is a destination not just a starting point. For Blacks and South Asians, in contrast, the immigrant enclave is a place to be left behind as economic circumstances allow.

Neighbourhood Outcomes

We illustrate the implications of these differences by calculating predicted outcomes from the regression models for families with standardised sets of characteristics. Regression simulations are useful for answering the *ceteris paribus* question: What are the expected neighbourhood outcomes for immigrants with *identical* characteristics? Do visible minority immigrants with similar levels of resources and at similar stages in their immigration history reach similar outcomes in terms of neighbourhood quality, spatial assimilation with whites, or co-residence with families from their own minority group?

The Comparison Groups

We estimate neighbourhood outcomes for three groups defined in terms of family economic resources and period of migration.

1. *Low income migrants who arrived less than 10 years ago* where "low income" is defined as:
   Family income < $10,000
   Rents accommodation
   Education less than high school
   Age 30–39
2. *Middle income migrants who arrived 10-19 years ago* where "middle income" is defined as:
   Family income $30,000 – $39,000
   Owns accommodation

High school education
Age 40–49

3. *High income migrants who arrived 20+ years ago* where high income is defined as:
   Family income >$50,0000 (approximately the top quintile)
   Owns accommodation
   University Education
   Age 40–49

The choice of characteristics captures most of the important differences among groups identified in the full regression equations. We do not estimate values for differences in family composition but their inclusion does not change our conclusions in any significant way. Allowing age to vary between 30–39 and 40–49 captures *all* of the difference in "age effects" noted earlier between whites and Chinese, on the one hand, and Blacks and South Asians on the other.

To establish a common reference point for neighbourhood income, we estimate values for white, black, Chinese, and South Asian immigrants relative to those for native-born, English-speaking, whites.

To add realism, we also distinguish among those who do and do not use English as their home language. Among whites, for example there are large differences between English-speaking migrants, mainly from the U.K and the U.S., and non-English speaking migrants from Eastern and Southern Europe.[13] Among South Asians, the numbers using a language other than English is substantial. The majority of black immigrants are from English-speaking countries but among the youngest cohort there is an important minority who are not. Since there are virtually no long-term black immigrants who do not use English as their home language, however, results for non-English speakers are only presented for the most recent cohort. Few recent Chinese migrants (about 11 percent) use English as their home language and estimates for those that do are included for reasons of completeness.

Neighbourhood Income

Do migrants with similar characteristics live in comparable neighbourhoods as indexed by median neighbourhood income? For *recent, low-income,* migrants (Table 6, column 1), the answer is no. Though considerably more muted than in the raw data (Table 1 above), the colour hierarchy among minor-

13. The largest source countries for European migration during the 1990s were Poland, the former Yugoslavia and countries of the former USSR. During the 1980s, Poland and Portugal were the largest European source countries (CIC, 2000).

ity immigrants remains: Chinese immigrants live in the most advantaged neighbourhoods and Blacks, especially non-English speaking Blacks, live in the least advantaged neighbourhoods. The colour hierarchy largely disappears among middle-income, longer-term, migrants, however, unlike the pattern in U.S. cities (compare with Alba, Logan and Stults, 2000: Table 6). Middle-income Blacks make the largest gains in neighbourhood attainment relative to more recent arrivals and Chinese immigrants the least. If anything, middle class Chinese families lose ground relative to other immigrants. As Wilson (1987) highlights, where low and middle-income families share the *same* neighbourhoods, the average low-income family will live in a more affluent neighbourhood than otherwise. But the converse is also true: middle-income families will live in somewhat poorer neighbourhoods.

Does "whiteness" matter? The answer depends on the reference group. On average, there are negligible differences between non-English speaking whites (mainly from Eastern Europe) and visible minority families. In contrast, the neighbourhood attainments of white, English-speaking, immigrants are indistinguishable from those of native born whites.

In short, *net* of compositional differences (e.g. there are more poor Blacks than poor Chinese, higher levels of home-ownership among the Chinese) the Black and South Asian disadvantage in neighbourhood attainment observed in the raw data is largely confined to the most recent cohort. Except for *English-speaking* whites, differences in neighbourhood attainment based on colour are relatively modest among longer term, more affluent migrants.

Table 6. Predicted Neighbourhood Income of Immigrants relative to Native Born Whites by Home Language, Economic Class, and Period of Immigration

	Low Income *<10 years*	*Middle Income* *10–19 years*	*High Income* *20+ years*
Whites			
English	0.98	0.99	0.99
Other	0.85	0.89	0.90
Blacks			
English	0.80	0.90	0.87
Other	0.72	–	–
Chinese			
English	0.94	0.91	0.94
Other	0.87	0.85	0.89
South Asian			
English	0.84	0.88	0.91
Other	0.80	0.85	0.88

Visible Minority Neighbourhoods

The results in the raw data (Table 2 above) show only modest differences among visible minorities in the extent to which they share neighbourhoods with whites but substantial differences in their propensity to live in neighbourhoods with families from their own minority. Chinese families are the most concentrated and black families the least. The question is whether these differences persist among longer term, more affluent and assimilated migrants. The results shown in table 7 indicate the answer is yes.

If living with *whites* is our benchmark, there is no difference in levels of spatial assimilation among Blacks, Chinese and South Asians. Consistent with spatial assimilation theory, neighbourhood exposure to white families is higher among higher income, longer-term migrants and among those who have adopted English as their home language. Comparing down columns, however, indicates only modest differences among visible minority families with similar characteristics.

In contrast, when we turn our attention to sharing neighbourhoods with families from the same minority, we find large and substantial differences. As spatial assimilation theory predicts, for Blacks and South Asians co-residence with members of one's own minority group is lower among longer-term, more affluent migrants. Indeed, affluent Blacks and South Asians live in neighbourhoods where their population share scarcely differs from that in the population as a whole.

Table 7. Predicted Percent White and Percent Own Minority For Visible Minority Immigrants by Home Language, Economic Class, and Period of Immigration

	Percent White			*Percent Own Minority*		
	Low Income <10 years	**Middle Income 10–19 years**	**High Income 20+ years**	**Low Income <10 years**	**Middle Income 10–19 years**	**High Income 20+ years**
Blacks						
English	50	55	62	14	9	6
Other	47	–	–	17	–	–
Chinese						
English	51	54	64	20	18	17
Other	44	48	57	26	24	23
South Asian						
English	49	54	65	16	15	8
Other	44	48	59	21	19	13

Among the Chinese, in contrast, large initial differences in starting points remain strong. Residential concentration among long-term, high-income Chinese families, even after adopting English as their home language, is higher than that of low-income, recent black and South Asian migrants. And long-term Chinese immigrants who retain Chinese as their home language are almost as likely to have Chinese neighbours as more recent arrivals.

Discussion: Making Ethnic Communities

Unlike Blacks in U.S. cities, patterns of residential settlement among Blacks (and South Asians) in Toronto display the expected outcomes associated with the traditional spatial assimilation model. Initial settlement for these groups is in low-income immigrant enclaves shared with their own and other visible minority immigrants. Long-term, more affluent, Black and South Asian migrants, however, tend to live in higher quality neighbourhoods dominated by whites and relatively few families from their own minority. In contrast, recent Chinese immigrants tend to settle in established Chinese neighbourhoods with more affluent and longer-term Chinese immigrant families.[14] The result is the formation of comparatively dense ethnic neighbourhoods.

The key to these differences lies in the differential patterns of homeownership among groups, on the one hand, and in the class organization of Toronto's urban space (see footnote 10), on the other. Chinese families make the transition from renter to owner early in their immigrant history and at very low levels of income. Low-income and recent black immigrant families, in contrast, start off at a huge disadvantage in the housing market, converging on other groups only at very high income levels.[15] Early success in the housing market — the ability to satisfy one's housing and cultural preferences simultaneously early in one's immigrant history — is precisely the condition that Logan, Alba and Zhang (2002) associate with the formation of dense ethnic communities. Since renters tend to be "movers" and homeowners "stayers" (Skaburskis,1996), the high rates of homeownership that characterize

14. This conclusion is implied by the regressions and can be demonstrated directly in the raw data. Residential segregation between low (>$20,000) and high ($40, 000+) income Blacks (D = .52) and South Asians (D = .54) is much higher than between low and high income Chinese families (D = .34). Residential segregation between recent (>10 years) and long term (>20 years) Black (D = .37) and South Asian (D = .43) immigrants is also higher than among Chinese immigrants (D = .33).

15. Among immigrants who have been in Canada for 10 years or less, the homeownership rate among Chinese is 71 percent compared to 33 percent among whites, 32 percent among South Asians and only 12 percent among Blacks. The homeownership rates among low income (<$10,000) Chinese, white, South Asian and black immigrant families are 61 percent, 30 percent, 21 percent and 8 percent respectively.

the period of initial Chinese settlement also tend to produce more stable and enduring ethnic neighbourhoods. Moreover, spatial segregation between renters and owners is also modest among the Chinese (D=.47) relative to Blacks (D= .58) and South Asians (D = .57) suggesting that high levels of homeownership also create an ethnic rental market in Chinese neighbourhoods.

If high rates of homeownership encourage the formation of ethnic neighbourhoods, the organization of Toronto's urban space virtually precludes such a development among immigrant groups who are predominantly renters. High-density apartment buildings geared to low-income renters as well as public housing — the most likely destination for new arrivals — are constructed on low-cost, usually suburban, land and are widely dispersed as a result (Skaburskis, 1996).[16] In this respect, the class organization of Toronto's urban space is closer to the French strategy for dispersing low-income Paris families in the periphery (Wacquant, 1995) than to the U.S. practise of concentrating low-income rental units and public housing in the central city (Dreier and Hulchanski, 1993).

We should not assume, of course, that if Blacks and South Asians achieved similar levels of homeownership that they would choose to live together in the same neighbourhoods. The creation of large, resilient, ethnic neighbourhoods also assumes the presence of a strong sorting mechanism, either externally imposed (in the case of ghettoes) or self-imposed (in the case of ethnic communities). As our regression results indicate, language retention and assimilation provide such a mechanism. Among the Chinese, language assimilation, not higher income, is associated with exit from the ethnic neighbourhood.

Our interpretation is reinforced by the historical experience of earlier (European) immigrant groups with housing histories similar to that of the Chinese, namely the Italians and Portuguese who arrived between the 1950s and 1970s (Murdie and Teixeira, 2001). A replication of our analyses (available on request) for the Italian and Portuguese communities at roughly the same moment in their immigration history (1981) produced similar results for the Portuguese and, for Italians, results that are virtually indistinguishable from those of the Chinese in 1996.

How then can we account for early success in the housing market? Logan, Alba and Zhang emphasize the arrival of new immigrant waves with high levels of individual (human and financial) capital. The Chinese have high

16. Low-income, and especially lone-parent, black families, are over-represented in publicly owned social housing units but these units are geographically dispersed and those with higher than average concentrations of blacks are located in the suburbs (Murdie, 1994). Murdie shows that relative to U.S. levels, black social housing residents in Toronto are not highly concentrated. Approximately 70 percent of all black social housing residents in 1986 were in units with less than 30% black co-residents.

levels of education by historical standards (see Table 1) and anecdotal accounts highlight the fact that many among the Hong Kong Chinese arrive with substantial amounts of financial capital. We suspect, however, that the family and ethnic economies (social capital) also play an important role. As Murdie and Teixeira (2001) highlight, high levels of home ownership among Italian and Portuguese migrants were facilitated by private financing among family members and co-ethnics, multiple family co-residence, and by renting rooms to co-ethnics, patterns that anecdotal accounts suggest are also common among recent Chinese immigrants.

Conclusion

Unlike previous locational attainment models estimated for Canada's new racial minorities with aggregate data, our micro-data estimates for Blacks and South Asians provide rather strong support for the standard expectations of the spatial assimilation model. Initial settlement is in disadvantaged immigrant enclaves while longer-term, more successful, migrants purchase homes in more affluent, predominantly white, neighbourhoods. The settlement patterns of the Chinese and of the Italians who preceded them, however, do depart from expectations and indicate that Logan, Alba and Zhang's distinction between immigrant enclaves and ethnic communities captures important and substantive differences in the immigrant experience.

Does "race" matter? Although analogies are often drawn between Toronto's poor black neighbourhoods and the black ghettoes characteristic of U.S. inner cities, such analogies appear overdrawn in light of these results. Black-white segregation in Toronto is low by U.S. standards (Balakrishnan and Hou, 1999; Fong, 1996) and somewhat lower than among Toronto's other racial minorities. "Black neighbourhoods" are relatively few in number and widely dispersed. More importantly, most Blacks do not live in "black neighbourhoods". Recent, low-income black and South Asian immigrants start out in poor immigrant enclaves but the economically successful select more affluent neighbourhoods where their population share scarcely differs from that of the city as a whole.

Whereas levels of black residential segregation are unexceptional, the profound disadvantage experienced by Blacks in the housing market calls for careful scrutiny. Accounting for the substantial differences observed in homeownership rates is undoubtedly the most important analytical challenge emerging from these results. Conventionally, residential settlement patterns consistent with spatial assimilation theory have been read as a sign of immigrant "success" among long term migrants rather than the failure of more recent migrants to satisfy their needs for "comfortable neighbourhoods and appropriate housing" (Murdie and Teixeira, 2001). Black disadvantage in the housing market may reflect unmeasured group differences in wealth, savings

behaviour, consumption preferences, family structure, labour supply, and many other factors. Results from Skaburski's (1996) analysis of the black homeownership deficit in Toronto with 1991 census data, however, indicates that the explanation does not lie in readily observable compositional differences among immigrant groups suggesting the reasons may lie on the supply side (i.e. discrimination). Unfortunately, we know precious little about this issue. As Novac et al. (2002) highlight, Canadian scholarship has so far generated little or no research on racial discrimination in the retail housing and mortgage markets.

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Appendix

Appendix Table 1. Regression of Median Neighbourhood Income on Measures of Economic Resources, Assimilation and Life Course Status, Toronto, 1996

	Whites		*Blacks*		*Chinese*		*South Asian*	
	Model 1	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*	*Model 1*	*Model 2*
Intercept	32,276	23,292	26,460	21,163	30,379	22,826	28,519	23,010
<10 years	−4,443	−620[a]	−4,004	−2,241	−1,884	461[c]	−3,909	−1,753
10–19 years	−1,805	−421[a]	−1,360	−1,430	−3,309	−1,370	−918[c]	−1,091[b]
20+ years	−1,503	−570	457[c]	−889	176[c]	4[c]	1,569[a]	−48[c]
$10,000–$19,999		662		660		−739		645
$20,000–$29,999		1,548		1,830		−641[a]		1,241
$30,000–$39,999		2,204		2,803		283[c]		2,183
$40,000–$49,999		2,860		3,350		838[a]		3,127
$50,000 +		5,020		4,556		3,121		5,161
High school		1,382		636[a]		1,810		518[b]
Some post-secondary		2,016		1,143		2,294		979
University		3,925		2,233		3,823		2,316
Owner		2,813		4,765		3,968		4,289
English/French		3,447		2,220		1,841		1,241
English/French and other		717		617[c]		139[c]		477[b]
Single Adult		−2,272		−1,057		−1,089[a]		−1,281
Lone Parent		−697		−781		−383[c]		−446[c]
2+ adults, no children		−1,861		−824		−949		−1,028
30–39		−32[c]		313[c]		44[c]		22[c]
40–49		737		179[c]		1,303		−190[c]
50–59		1,538		−410[c]		1,489		173[c]
60 & +		1,982		−468[c]		1,392		−69[c]
N	216,630	216630	17,845	17,845	18,052	18,052	16,439	16,439
R-square	0.016	0.173	0.06	0.233	0.023	0.171	0.093	0.268

Note: Unless otherwise indicated, p<.001; a, p <.01; b, p < .05, c, p = n.s

Appendix Table 2. Regression of Percent White on Measures of Economic Resources, Assimilation and Life Course Status, Toronto, 1996

	Whites		*Blacks*		*Chinese*		*South Asian*	
	Model 1	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Intercept	75.8	65.4	60.2	51.5	64.0	55.8	59.5	48.0
<10 years	−6.2	−2.0	−8.3	−5.7	−18.2	−10.9	−10.6	−5.1
10–19 years	−4.1	−2.6	−6.0	−5.2	−14.1	−8.2	−7.0	−3.9[a]
20+ years	−2.5	−1.8	−4.2[b]	−4.5	−8.4	−5.3	−2.5[c]	−1.4[c]
$10,000–$19,999		2.1		0.9[c]		0.6[c]		1.3[b]
$20,000–$29,999		2.9		2.1[a]		0.8[c]		1.7[b]
$30,000–$39,999		3.1		3.1		1.2[c]		3.0
$40,000–$49,999		3.2		3.5		3.1		3.2
$50,000 +		4.7		5.3		6.0		7.9
High school		0.4[c]		0.1[c]		0.3[c]		0.4[c]
Some post-secondary		1.5		0.9[c]		−0.7[c]		1.7[a]
University		2.9		4.2		2.1[b]		4.1
Owner		4.0		2.8		−2.4[b]		0.7[c]
English/French		3.7		3.5[a]		6.5		5.2
English/French and other		−0.1[c]		−0.8[c]		2.6[a]		0.4[c]
Single Adult		−1.7		4.3		2.7[a]		2.4[b]
Lone Parent		−0.9		−1.0[c]		2.3[c]		0.6[c]
2+ adults, no children		−1.7		1.1[b]		−0.7[c]		−0.5[c]
30–39		0.5[c]		0.9[b]		−0.4[c]		1.3[b]
40–49		0.8[b]		−0.6[c]		1.0[c]		0.2[c]
50–59		0.9[b]		−1.4[c]		1.9[b]		0.6[c]
60 & +		2.3		0.0[c]		2.1[c]		1.7[c]
N	216,630	216,630	17,845	17,845	18,052	18,052	16,439	16,439
R-square	0.009	0.044	0.016	0.049	0.054	0.084	0.031	0.074

Note: Unless otherwise indicated, p<.001; a, p <.01; b, p < .05, c, p = n.s

Appendix Table 3. Regression of Percent Own Ethnic Group on Measures of Economic Resources, Assimilation and Life Course Status, Toronto, 1996

	Blacks		*Chinese*		*South Asian*	
	Model 1	**Model 2**	**Model 1**	**Model 2**	**Model 1**	**Model 2**
Intercept	10.4	17.2	14.5	19.9	11.3	18.8
<10 years	4.6	2.8	12.9	6.5	6.2	2.5
10–19 years	2.3	2.0	7.6	2.5[b]	4.6	2.1
20+ years	0.5[b]	1.4	6.1	2.3	1.5[b]	0.6[c]
$10,000–$19,999		−1.2		−1.3		−0.3[c]
$20,000–$29,999		−2.0		−3.0		−0.3[c]
$30,000–$39,999		−2.7		−3.1		−1.4
$40,000–$49,999		−2.9		−3.7		−1.9
$50,000 +		−3.5		−4.0		−4.1
High school		−0.8[b]		0.1[c]		−0.3[c]
Some post-secondary		−1.4		1.5[c]		−1.2
University		−2.9		0.5[c]		−2.4
Owner		−2.3		4.7		0.9[c]
English/French		−2.7		−6.0		−4.1
English/French and other		−0.4[c]		−3.6		−0.6[c]
Single Adult		−1.7		−2.8[a]		−2.2
Lone Parent		0.6[c]		−3.5		−1.5[a]
2+ adults, no children		−0.7[a]		0.4[c]		−0.4
30–39		−0.3[c]		−0.7[c]		−0.7[c]
40–49		−0.1[c]		−0.1[c]		−1.2
50–59		−0.1[c]		−0.9[c]		−1.4
60 & +		−0.4[c]		−0.2[c]		1.7[b]
N	17,845	17,845	18,052	18,052	16,439	16,439
R-square	0.043	0.117	0.04	0.077	0.039	0.112

Note: Unless otherwise indicated, p<.001; a, p <.01; b, p < .05, c, p = n.s