Residential intensification in Windsor and Owen Sound, Ontario.

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Residential Intensification
in Windsor and Owen Sound, Ontario.

by

Wallace Arthur Brooks

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Geography
in partial fulfillment of the requirements
for the degree of Master of Arts at the
University of Windsor

Windsor, Ontario, Canada.

1993
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Residential Intensification
in Windsor and Owen Sound, Ontario

Abstract. Residential intensification refers to the house alterations ranging from adding dwelling units to existing dwellings, to constructing new infill dwellings on vacant lots. Intensification is conceptualized within a broader theory of neighbourhood life cycle and renewal, as it is closely related to other private reinvestment processes such as rehabilitation, incumbent upgrading, gentrification (de-intensification), and redevelopment. In a general model of the causes of inner city neighbourhood change, societal shifts in the economic, demographic, cultural and governmental spheres are related to the different forms of neighbourhood reinvestment or disinvestment. Varying combinations of these shifts are hypothesized to result in different forms of inner city residential change, ranging from abandonment through to redevelopment. This study focuses on those combinations producing residential intensification, and it tests hypotheses from the model for Windsor and Owen Sound, Ontario. One-hundred-and-fifty-one owner-occupiers and absentee landlords in Windsor, and 200 in Owen Sound, responded to a survey which measured their current and future-planned levels of house alterations in older urban neighbourhoods. Logit analyses are utilized to test the general applicability of the conceptual model. The conclusion is that these individuals intensified their housing, or not, in these two cities as responses to subsets of the economic and the cultural societal shifts identified in the conceptual model.
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Residential Intensification in Windsor and Owen Sound, Ontario

1. INTRODUCTION

Residential intensification is the process whereby the number of households accommodated in existing buildings is increased, and/or the housing stock on already serviced land is expanded (City of Windsor, 1990a). Intensification became a mandatory objective of Ontario municipalities in 1989 after the provincial government released its Land Use Planning for Housing policy statement (Province of Ontario, 1989a, 1989b). Since that time, municipalities have begun to actively encourage and promote this new land-use and planning objective.

The most common, but the most controversial form of intensification involves the conversions of single-detached homes into duplexes, triplexes, and even rooming houses. These conversions are often located in the midst of existing, predominantly single-detached home neighbourhoods. The introduction of both the higher-density rental accommodation, and the renter-households into owner-occupied neighbourhoods has a tendency to worry adjacent property owners about their neighbourhood character and property values. Previous studies about intensification have mostly been planners and consultants' reports that itemize the practical methods for intensification, and assuage the concerns of vulnerable communities (City of Windsor, 1990a, 1990b; Dettinger, 1990; Lewinberg consultants, 1988). No previous studies have attempted to assess with direct surveying, and
statistical analyses, the actual reasons why property-owners choose to intensify their homes, or not.

1.1 Definitions of Residential Intensification

The three main types of residential intensification are conversion, infill and redevelopment. Conversion is the most common in older urban neighbourhoods, and this is where the number of dwelling units is increased in existing buildings, both with and without visible external alterations. Also, the buildings may be converted from non-residential to residential uses. Generally, the four types of conversions to intensify residential uses are: 1) no physical changes (e.g., take in a boarder); 2) interior renovations (e.g., erect new interior walls only); 3) exterior renovations (e.g., external additions added to create more living space); and, 4) conversions of non-residential buildings.

Infill is where new dwelling units are built on previously unused or vacant, already serviced urban lands. Redevelopment, in contrast, is where older, low density (possibly non-residential) lands are razed, and are re-developed with higher density residential accommodation. The City of Windsor (1989b) summarizes these in its four "levels" of intensification:

LEVEL 1. Basement apartments in existing homes, and low density infill compatible with the neighbourhood character;
LEVEL 2. Duplexing and triplexing with NO structural change, and infill compatible with the neighbourhood character;
LEVEL 3. Duplexing and triplexing WITH structural change, and infill compatible with the neighbourhood character; LEVEL 4. Conversion from non-residential to residential use, and both infill and redevelopment for medium and high density residential uses.

The primary focus of this research project is the first three minor levels of residential intensification in which an existing home is structurally modified, possibly invisibly from outside. The economic, demographic, cultural and governmental forces in society currently impinging on property owners are first identified. Next, these forces are operationalized into motivating and inhibiting variables that are hypothesized to influence the individual household's decision to intensify. Finally, the hypotheses are tested for 353 households living in the inner urban neighbourhoods of two medium-sized Canadian cities, Windsor and Owen Sound, Ontario.
2. HISTORY OF THE CONCEPT OF INTENSIFICATION

Residential intensification, although not long referred to in academic research with this terminology, is by no means a new process in neighbourhood dynamics. The earliest references were to residential intensification in older urban homes towards the end of their life cycle. Engels (1844), possibly first documented its occurrence in both London and Manchester during the middle of the nineteenth century. He recognized that the demographic transition paralleling the rise of industrial capitalism led to severe housing overcrowding, and hence intensification. The most obvious example was his reference to the vast number of basement level apartments, and the rather severe conditions (humidity, rats, bugs, overcrowding, sewerage leaks etc.) associated with them. In these early accessory apartments, the poorest of the exploited working class lived in absolute squalor. Worse still, Hutt (1933) found that working class housing conditions in London had actually worsened by the early 20th century. Overcrowding, doubling up, overintensive use of housing sites, and typical conversion-intensification were, along with gentrification, significant processes of neighbourhood change induced by the capitalist free-market system. Analogously in Paris, doubling up of entire families in tiny apartments, as well as the habitation of attic and basement (cellar) apartments augmented the inadequate housing supply, as landlords were unable to profitably provide working class housing (Harvey, 1985; Shapiro, 1985). Both property owners and tenants adapted by intensifying, as this provided the only
practicable solution to the housing crises.

In the United States, many recent immigrants to large cities took boarders in the late 1800s and early 1900s:

until the early 1930s, families commonly took in boarders and lodgers to supplement household incomes; this practice also extended the numbers and the types of accommodations available in growing cities where housing was in short supply. Lodgers and boarders could be found in 20% of all households in 1850, and a sizeable proportion of households (11.4%) kept boarders and lodgers as late as the 1930's. (Veness, 1992, p. 455).

The earliest references to contemporary residential intensification are in the classic works of the Chicago School in the 1920s. Burgess (1925, 1929) made reference to intensification (in his classic concentric zone model), in the zone of transition where large, older homes were subdivided into smaller apartments and rooming houses. As the original inhabitants moved outward, the inner city homes gradually filtered down to lower-income groups, usually after having been intensified into apartment units. This early reference to intensification is further acknowledged by Bunting (1991) who states:

Thus Park [and Burgess] argued that as aging housing was 'abandoned' by the middle- and upper-classes, it would be taken up by lower income groups, and eventually be subdivided by non-occupant owners and rented out to lower income tenants. (Bunting, 1991, p. 300).

Zorbaugh (1929) described the early forms of intensification in an analysis of a rooming house district in Chicago's near north side during the 1920s: "The typical rooming-house is never built for the purpose; it is always an adaptation of a former residence, a residence which has seen better days." (Zorbaugh 1929, p. 69). As a result of the invasion and succession of lower income groups
into the neighbourhood, "the large old residences have been turned into rooming-houses --another chapter in the natural history of the city." (Zorbaugh 1929, p. 70). He referred to statistics from the Illinois Lodging House Register, revealing that there were 1,139 rooming (intensified) homes in the area, housing some 23,000 persons. More significantly, Zorbaugh conducted a first door-to-door survey of intensification of some ninety blocks in "the better rooming area" (Zorbaugh 1929, p. 71): 71% of the houses in this district kept roomers; 52% of these roomers were single men, 10% single women, and 38% couples; predominantly childless, most residents were 20 to 35 years old, and employed primarily in white collar professions, with some students. In addition to being comprised of these small households, the population in the area was highly transient. Finally, these rooming houses were predominantly large, out-dated and out-moded residences converted to the use.

Subsequently, Hoyt (1939) encapsulated these processes of residential neighbourhood change as filtering: neighbourhoods should pass through specific stages as they slowly aged and were successively invaded by lower income groups. "Forces constantly and steadily at work are causing a deterioration in existing neighbourhoods." (Hoyt 1939, p.121). Eventually some homes, particularly former mansions of the rich, would be taken over and subdivided (i.e. intensified) into apartment uses. He suggested that:

The highest grade neighbourhood, occupied by the mansions of the rich, is subject to an extraordinary rate of obsolescence. ... There is no class filtering up to occupy them for single-family use. Consequently, they
can only be converted [intensified] into boarding houses. (Hoyt, 1939 p. 121).

Somewhat differently to these earliest studies, Firey (1947) referred to intensification in his seminal study of Land Use in Central Boston. In this first in-depth historical and contemporary examination of one stable inner city residential neighbourhood, Beacon Hill, intensification occurred even in an exclusive, upper-class area:

One adjustment to the increased cost of living in Beacon Hill has been the movement away from single-family dwellings to small apartment houses - generally old dwellings reconverted for the purpose. (Firey 1947, p. 134).

For possibly the first time, intensification was formally recognized as occurring in a stable, upper-income neighbourhood as a product of economic factors. The early descriptions of the process had focused only upon rooming house conversions in deteriorating slum areas adjacent to the central business district. Beacon Hill, in contrast, was a reputable neighbourhood in which affordable rental dwelling units were sought after by small households looking to gain prestige through residence in the area:

Sometimes young couples of good family -- but for the time being, living on a shoestring, will rent moderately priced apartments in converted Beacon Hill houses. Thus without too great expense to themselves, they are able to live in a socially acceptable neighbourhood and thereby symbolize their class position. (Firey 1947, p. 99).

Thus, the conversion of single-detached homes into apartment units supplied housing which was demanded in a fashionable area. Intensification was therefore not necessarily an undesirable process associated with urban decay and blight.
Notwithstanding, residential intensification as a late phase in the neighbourhood life cycle, preceding either renewal or abandonment, has become the dominant conception for academics and lay-people. Hoover and Vernon (1959) synthesized the previous work on filtering into a new theory of how neighbourhoods evolve, based on their observations in New York City. Their theory had five distinct stages for the evolution of a residential neighbourhood. Stage 3, down-grading, is particularly salient, as in this phase, the older multi-family and single-family houses are converted and intensified to greater-density use than they were originally designed for. "In this stage there is little actual new construction, but there is some population and density growth through conversion and crowding of existing structures." (Hoover & Vernon 1959, p. 196). Moreover, they emphasized the increasing relevance of level 4 intensification, "renewal", as the final phase in neighbourhood change. Unfortunately however, they did not anticipate the later widespread abandonment of housing in older North American cities.

Statistics on residential intensification activity in Metropolitan New York City between 1950 and 1956 indicated that the net increase in dwelling units due to conversion accounted for up to 10% of all new dwellings created during this time period (i.e. 67,700 out of 677,000) (Hoover & Vernon 1959, p. 197 - 198). Intensified buildings were generally found to be older structures. Fifty percent of all conversions occurred in owner occupied, single family housing, but after the conversion activity, only one-half of
these single family conversions remained owner occupied. A mere 5% of all converted units were occupied by non-white households. Finally, the rent charged for newly-converted units was far higher than that levied on previously existing rental units, as the rent control legislation did not apply. Birch (1971) used quantitative analysis to test Hoover & Vernon's (1959) theory in New Haven Connecticut. He concluded that it is,

possible quantitatively to define stages quite similar to those of Hoover and Vernon and ... the tendency for any given neighbourhood to move from one stage to the next is quite strong. (Birch 1971, p. 80).

And moreover;

Neighbourhoods in New Haven appear to evolve through a predictable sequence of stages over time. Furthermore ... research suggests that the evolution takes place with remarkable regularity. (Birch 1971, p. 86).

Birch's results not only further supported the life cycle theory, but they also corroborated the eventual transition of neighbourhoods into the 'down-grading' (intensification) phase originally identified by Hoover and Vernon. Residential intensification was a late phase in the neighbourhood life cycle. Most significantly, it might postpone the worst deterioration and the abandonment of homes in the absence of any other renewal process, public or private. Thus, almost simulating the past, both major and minor residential intensification may be significant processes affecting the future evolution of, and investment in neighbourhoods. Since the 1970s, urban researchers have incorporated the privately-oriented reinvestment activities and decisions of individuals and classes into theories of neighbourhood
life cycle and renewal (Bourne, 1976; Guest, 1974; and, Webber, 1975). Accordingly, this study focuses specifically on the processes causing individual households to intensify, or not.
3. THEORY

3.1 Introduction

This study's conceptual model of the forces behind inner-city neighbourhood change is flowcharted in Figures 1, 2 and 3. Residential intensification is conceptualized as resulting from the intersection of four major forces within society, analogously to other processes of private housing renewal, namely, rehabilitation and incumbent upgrading (Bunting & Phipps, 1988; Millward, 1988), and more specifically gentrification (de-intensification) and redevelopment (Beauregard, 1990; Gale, 1986; Hamnett, 1991, 1992; Ley, 1986; Mills, 1988; Munt, 1987; Robinson, 1987; A. Smith, 1989; N. Smith, 1979, 1987 and 1992). The four interrelated societal shifts are in the economic, demographic, cultural and governmental spheres, and their intersections cause different combinations of neighbourhood reinvestment or disinvestment. The primary focus in this model is on the combinations producing residential intensification in inner city neighbourhoods.

3.2 Economic Shifts

Many potential intensifiers may move to and/or remain in inner-city neighbourhoods ripe for intensification due to a shortage of affordable housing elsewhere. Inflating land costs, urban-servicing charges (lot levys etc.), or mortgage interest rates tend to make new and second-hand single detached suburban housing much more expensive. Much of this exclusive and preferred housing supply may thus be priced beyond the incomes and house-hold
Figure 1. Economic Forces Behind Residential Intensification.
wealth of lower and middle-income households, unless they intensify and supplement their finances. Lack of more affordable housing may also tend to act as a force of inertia, constraining them to remain in their present home because they cannot afford to move elsewhere.

In any case, unless financial institutions and realtors acknowledge a neighbourhood as potentially profitable for investment, intensification will not occur (Wilson, 1986, 1991). However, over time, many large older inner-city homes become devalorized and are priced well below their actual potential value. Thus with the appearance of this inner-city rent gap, professional investors and lending institutions may renew their interest in the housing submarket (Smith, 1979, 1987, 1992). This rent gap may stimulate capital switching into older urban neighbourhoods (Harvey, 1978; Feagin, 1987; King, 1989). Even owner-occupants wanting to intensify may be granted funds, or borrow them at underwritten rates.

3.3 Demographic Shifts

The changing occupational structure of western societies, along with the associated growth of white-collar professional jobs during the 1980s, has produced a larger number of households who are more likely to purchase and to live in intensified inner-city homes (Knox, 1991; Ley, 1986, 1991). First, more and more people are employed in tertiary and quaternary-sector jobs that are commonly clustered in the downtowns of cities, and so they may live in the inner-city to be near to work. Many of this new
cosmopolitan professional class have a utilitarian or a socially-signifying preference for inner-city living, rejecting the stereotypical suburban home.

Second, the dwelling needs of these and many other new families are for smaller centrally located housing units that can only be supplied through residential intensification. Demographic shifts since the early 1970's have caused dramatic changes in the family- and the age-structures of western societies. Families and households are now much smaller than in the past. Also, they are far more likely to be headed by a single parent. This, combined with additional growth in the number of individuals living alone, and a dramatic increase in the number of aging senior citizens who possibly either require or own rental accommodation, has created tremendous demand for smaller, affordable and accessible rental dwelling units, which may increase well into the future (City of Windsor, 1988a, 1988b, 1989a, 1990a, 1990b).

3.4 Cultural Shifts

A home is more likely to be intensified if viewed predominantly in terms of money. Cultural shifts in commodity consumption have translated into people's altered preferences and expectations for their home. Many more households judge their home no longer as a shelter, but instead as a source of financial investment. If the home is evaluated more in terms of this exchange value, rather than the use value, then surplus living space will be capitalized perhaps by its conversion into a new
Figure 2. Demographic and Cultural Forces Behind Residential Intensification.
dwelling unit.

In opposition to this commodification of housing, community groups may mobilize to collectively resist, or reduce the scale of proposed intensification and associated zoning changes in an effort to preserve the social character of their neighbourhood. Cultural shifts in conjunction with governmental shifts have entrenched these urban politics of community opposition to alteration in the built environment. Recent changes in the planning process have tended to facilitate greater public input into decision-making. This has mobilized grass-roots urban social movements, with angry residents opposing unwanted development, becoming major actors in the process of urban dynamics (Castells, 1983).

3.5 Governmental Shifts

Government policies and programs may intendedly or unintendedly stimulate or retard intensification. Shifts in governmental policy have recently been toward the provision of affordable and accessible rental housing for all social classes and subgroups. Political policies and programs designed to achieve this social objective will tend to induce inner-city reinvestment (A. Smith, 1989). For example, the Ontario Government's recent policy statement, Land Use Planning for Housing (Province of Ontario, 1989a, 1989b), mandated and promoted residential intensification as a necessary process of change. This provincial document stimulated municipal policy formulation, resulting in turn
Figure 3. Governmental Forces Behind Residential Intensification.
in specific zoning amendments in some neighbourhoods that are designed to permit the increased density of intensification. Ontario's Commission on Planning and Development Reform recently recognized the need for what it terms "acceptable intensification", and has recommended that this highly desirable process continue to be encouraged and promoted by policy initiatives (Province of Ontario, 1992a, 1992b).

Similarly, governmental shifts can initiate direct improvements in transportation and urban infrastructure, or not. Residential intensity will be stimulated by lags in infrastructure causing traffic congestion, especially in major cities where individuals relocate in the inner city to avoid long distance commuting.

3.6 Hypotheses

In summary, the reasons influencing the individual's decision to intensify are thus hypothesized to be derived from these economic, demographic, cultural and governmental forces (See Appendix 1). The economic influences on intensification are operationalized in this study as 'derived a source of income' \( X_1 \), 'have increased my standard of living' \( X_2 \), 'improved the home's resale value' \( X_3 \) and 'helped pay off the mortgage' \( X_4 \). Also, economic reasons for selecting and/or remaining in an inner city neighbourhood are 'my home is affordable relative to other areas' \( X_{19} \) and 'I can't afford to move elsewhere' \( X_{20} \). The demographic reasons behind intensification are 'obtained companionship from
tenants' \((X_5)\), 'increased personal security' \((X_6)\), 'have additional space for the family' \((X_7)\) and 'have better used surplus space in the home' \((X_8)\). The cultural factors are 'improved the appearance of the home' \((X_9)\), 'have gone along with neighbours also doing this work' \((X_{10})\) and 'had the handy skills to do such work' \((X_{11})\). Finally, a governmental factor promoting intensification is 'the neighbourhood's zoning allows for such work' \((X_{12})\).

Conversely, a household may choose not to alter for reasons also derived from the same economic, demographic, cultural and governmental forces. Economic factors are operationalized in the model as 'cannot afford to alter the home' \((X_{13})\), 'property taxes might be raised' \((X_{14})\), and 'do not want to take out a loan to intensify' \((X_{15})\). The demographic reasons influencing the decision not to intensify are 'do not want to take on a boarder' \((X_{16})\), 'do not want to take on a tenant' \((X_{17})\) and 'the neighbourhood is not suited for an altered or converted dwelling' \((X_{18})\). The cultural factors are operationalized as 'the home is worth more as it is now' \((X_{19})\), 'the home's size and layout is not suited for it' \((X_{20})\), 'do not have time to alter the dwelling' \((X_{21})\), 'will be moving or selling in the near future' \((X_{22})\), 'neighbours are not altering their dwellings' \((X_{23})\), 'prefer the home as it appears now' \((X_{24})\) and 'value the extra space in the home' \((X_{25})\). Finally, the governmental force causing an individual not to intensify is 'the neighbourhood's zoning does not allow for conversion' \((X_{26})\). In sum, the following statistical model summarizes these hypotheses:
Level of Past Intensification = f{Economics: \( X_1, X_2, X_3, X_4, X_{13} \), \( X_{14}, X_{15}, X_{27}, X_{28} \); Demographics: \( X_5, X_6, X_7, X_8, X_{16}, X_{17}, X_{18} \); Culture: \( X_9, X_{10}, X_{11}, X_{19}, X_{20}, X_{21}, X_{22}, X_{23}, X_{24}, X_{25} \); and Government: \( X_{12}, X_{26} \)}.

(1)

The operational version of the model in equation (1), which is calibrated below, also potentially included independent variables controlling for the respondent-households' reasons for remaining living in its neighbourhood, and its situational variables (See Appendix 1).
4. METHODOLOGY

4.1 The Survey

A hand-delivered/mail-back survey instrument, presented in Appendix 1, measured each respondent-household's motivational, inhibiting and personal variables discussed in the previous sections. The motivating and inhibiting factors were measured on "importance scales" ranging from 0—not important to 100—extremely important. It similarly measured the reasons for remaining living in the house and neighbourhood, as well as the personal socio-economic characteristics of these intensifier and non-intensifier households. The survey also elicited the household's 'past' house alterations to create one-or-more new dwelling units, or to eliminate them during the period of residency, and the alterations planned in during the next two years.

4.2 The Study Areas

The survey was carried out in the older urban neighbourhoods in two study-areas, Windsor and Owen Sound, Ontario. The first of these, Windsor, has experienced relatively low rental vacancy rates since the mid 1980's until quite recently. Policy-strategies to create additional dwelling units through residential intensification have been endorsed by city planners. Even so, in the spring of 1991, the Windsor City Council rejected a policy proposal which would have given "owners of large, older homes in Windsor's core area ... the automatic right to subdivide their homes" (Vander Doelen, 1991). Consequently, propertyowners must
still obtain the approval of the city council for all residential
intensification proposals, both major and minor, except where
legally permitted by existing zoning. In rejecting the proposal,
Councillors cited a fear that

The automatic right to convert a home to a duplex,
triplex or a rooming house would be too dangerous to the
quality of life in some neighbourhoods. (Vander Doelen,

In Windsor, a population of 70 dwelling units, each legally
intensified through the City of Windsor's development approval
process in 1989 and 1990, was compiled. Three sources to identify
them were utilized: 1) Home Planning Advisory Service (HPAS)
records; 2) Planning Advisory Committee (PAC) records; and, 3)
records of building permits issued. Sixty percent or 42 of the 70
dwelling units had absentee landlords. An attempt was made to
contact, and to interview each of these identified propertyowners.
In addition, at least three households neighbouring each of these
legally-intensified units were randomly surveyed.

Complementarily, the survey was also carried out in a targeted
older-urban residential neighbourhood, the Glengarry neighbourhood
(Jones, 1992). Seventy-five randomly selected households responded
to the survey during the spring 1991, yielding a total of 151
Windsor respondents when combined with 76 legal intensifiers and
their neighbours responding in the fall 1991.

Last, the survey was carried out in Owen Sound during the
fall 1991. Areas of the inner-city where intensification might be
occurring were identified through consultation with municipal
officials, and households within them were randomly sampled (City
of Owen Sound, 1990). Owen Sound has recently experienced a relatively large influx of young urban professionals into the city, possibly trying to avoid the congestion and expense of life in Metropolitan Toronto. The city's core has many older, large Victorian and Edwardian brick homes ideally suited to duplexing and triplexing. This, combined with the spillover effect of Toronto development capital, has established this small Ontario inner-city as ripe for a reinvestment process of intensification. A total of 202 Owen Sound residents responded to the survey.

4.3 Analysis

A logit transformation of the model in Equation 1 was run on the pooled data set for the 353 respondents in the four subgroups. The binary level of past intensification, as defined below was regressed on composites of the hypothesized contributing independent variables. These independent motivating and inhibiting factors in equation (1), measured in the survey, were operationally re-grouped into their more general economic, demographic, cultural and governmental variables. The maximum sub-variable score from the survey for each respondent served as the composite score in the model. For example, $X_{i,2,1,4}$ in the next section is a composite of four economic motivating factors, and operationally it had the respondent's maximum score from either $X_1, X_2, X_3$ or $X_4$. In addition in the operational model, dummy variables for categorical situational variables were used to test for idiosyncrasies between the subgroup samples. However, none of these were statistically
significant, and therefore, they are not reported in the results. In sum, the calibrated model constructs a motivational profile of the past intensifiers versus the non-intensifiers, and thus infers the reasons for their decision to intensify, or not.
5. Results

Table 1 displays the numbers of respondents who performed, or planned to perform the various levels of intensification in Windsor and Owen Sound. A moderate number of them had intensified: 22% had performed interior renovations to create an additional unit in Windsor, and 16% in Owen Sound; 5% reported adding a top addition to create an additional unit in Windsor, versus 3% in Owen Sound; only 3% added a side addition for a new unit in Windsor, but 7% had done so in Owen Sound. Thus, Owen Sound respondent-households were generally more likely to intensify through the construction of a side addition, whereas Windsor intensifiers were more likely to convert or add a top addition. Respondent-households were classified as past intensifiers if they had performed any one of these forms of intensification. After accounting for some respondents checking more than one alteration, 26% of Windsor respondents were classified as intensifiers, and 21% from Owen Sound. In order to minimize the interpretational problems with these multiple entries, a household was not classified as an intensifier if it had solely taken in a boarder: 10% had taken in a boarder in Windsor, versus 6% in Owen Sound. Lastly and incidentally, inner-city Owen Sound had much more de-intensification, with 13% of respondent-households having torn out walls to remove dwelling units, versus a mere 5% of the Windsor respondents.

Table 2 displays the results of the logistic regression in which the binary dependent variable, level of past intensification,
Table 1. Respondents' Past and Future House Alterations.

<table>
<thead>
<tr>
<th>House Alteration</th>
<th>WINDSOR</th>
<th></th>
<th>OWEN SOUND</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Past %</td>
<td>Future %</td>
<td>Past %</td>
<td>Future %</td>
</tr>
<tr>
<td>Construct an addition to the side of my dwelling to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>create an additional dwelling unit</td>
<td>3</td>
<td>2</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Add a basement apartment</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Construct an addition to the top of my dwelling to</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>create an additional dwelling unit</td>
<td>5</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Performed interior renovations to create an additional unit(s)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>5</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td>Construct a separate dwelling on my lot</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Construct a new dwelling on a vacant lot</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Taken in a boarder(s)</td>
<td>10</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Torn out walls or doors etc. to eliminate dwelling</td>
<td>5</td>
<td>3</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Number of Household Respondents</td>
<td>151</td>
<td></td>
<td>202</td>
<td></td>
</tr>
<tr>
<td>Past Intensifiers</td>
<td>26%</td>
<td></td>
<td>21%</td>
<td></td>
</tr>
</tbody>
</table>
was regressed on the composite variables for the societal shifts influencing a household's decision to intensify, and the reasons for continuing to own the home. The first variable entering into the model, \((X_{19,20,24,25})\), was a cultural housing-space variable, representing the perceived utility of the home's extra space, and the general preference for the home as it was. The highly statistically-significant negative partial coefficient, \((-0.23; p<0.00)\), indicates that if a respondent-household judged that the home was worth more, and looked better as it was; and it was not suited for intensification; and the surplus space was valued in the home; then intensification was unlikely. The second variable, \((X_{1,2,3,4})\), represented the economic shifts hypothesized to motivate individuals to intensify. This was statistically the strongest variable, as expressed in its moderate positive partial correlation \((0.32; p, 0.00)\). In words, a respondent-household was more likely to have intensified if it derived an additional source of income; or increased the standard of living; or improved the home's resale value; or helped pay off the home's mortgage.

The third variable, \((X_{5,6})\), represented the hypothesized demographic shifts, and its significant positive partial correlation, \((0.14; p, 0.01)\), indicates households who wished to obtain companionship, and/or to increase their sense of personal security, were more likely to have intensified. The fourth variable, \((Z_{22})\), represented any change in the number of residents in the home, and its positive effect confirms that intensified homes experienced a net increase in the number of occupants.
Table 7. Logit Analysis of Forces Influencing Past Intensification.

<table>
<thead>
<tr>
<th>Variable Score</th>
<th>Mean</th>
<th>Std. Err.</th>
<th>t Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>( X_{1,2,3,4} )</td>
<td>0.45</td>
<td>0.02</td>
<td>-2.97</td>
</tr>
<tr>
<td>( X_{5,6} )</td>
<td>0.24</td>
<td>0.02</td>
<td>2.90</td>
</tr>
<tr>
<td>( Z_{12} )</td>
<td>0.08</td>
<td>0.01</td>
<td>2.32</td>
</tr>
<tr>
<td>( Z_{1,2,3} )</td>
<td>0.16</td>
<td>0.04</td>
<td>0.66</td>
</tr>
<tr>
<td>( Z_{12,38} )</td>
<td>0.77</td>
<td>0.02</td>
<td>-1.10</td>
</tr>
<tr>
<td>Constant</td>
<td>0.60</td>
<td>0.02</td>
<td>1.38</td>
</tr>
<tr>
<td>Number of Household Respondents</td>
<td>353</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model Chi Square | 191.75 with 6 d.f. and .000 signif.

Classification Table

<table>
<thead>
<tr>
<th>Observed</th>
<th>Predicted</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1 1</td>
<td>0 1</td>
<td>94.44%</td>
</tr>
<tr>
<td>1 1 2 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 5 5 15</td>
<td>94.44%</td>
<td></td>
</tr>
<tr>
<td>1 1 6 2</td>
<td>72.29%</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>89.24%</td>
<td></td>
</tr>
</tbody>
</table>
(p<0.01). The fifth variable entering into the model, (Z_{1,2,*}), represented household comfort and satisfaction. The statistically significant weaker negative relationship, (-.07; p<0.05), indicates that the more comfortable the respondent-household was; the more friends and family were close by; and the more a household liked its neighbours; the less likely it was to have intensified. In other words, the decision not to intensify was particularly influenced by the respondent-household's satisfaction with the surrounding social environment. The final variable entering into the model, (X_{7,2,*}), represented housing affordability. This had a significant positive partial correlation coefficient, (.10; p<0.01), indicating that if a respondent-household was financially unable either to live, or to move elsewhere, then it was more likely to have intensified. In summary, these six composite independent variables in the model correctly predicted 89% of the entire sample: 94% of non-intensifiers, and 72% of intensifiers. The model was highly statistically significant, as expressed in the Chi Square coefficient.
6. CONCLUSION

Residential intensification has long been recognized in the literature as a process shaping the built environment. Almost simulating the housing and neighbourhood processes during the earlier periods, residential intensification will be a potentially significant process affecting the future of inner-city neighbourhoods in Canadian communities. This study of contemporary intensification suggests that, so far, it has been a relatively moderate process in Windsor and Owen Sound. Nonetheless, in comparison with these study-areas, residential intensification is probably a much more visible and significant phenomenon in larger Canadian cities such as Toronto and Vancouver. These larger cities are experiencing much greater population and household growth, fuelling a demand for newly-intensified dwelling units that surpasses that in Windsor and Owen Sound.

In the study areas, intensification was generally performed by households whose housing choice process was constrained by affordability limits, and thus the intensification usually resulted in an increase in the number of occupants in the dwelling. Most intensifiers wished either to supplement their incomes, or to profit from the alterations; they gained companionship and security possibly as a by-product. Conversely, households did not intensify if they did not have these needs, and in particular if they valued their additional living space. These findings were based on correlational analysis, and future research might employ in-depth interviews to provide detailed case studies of various
intensifiers, their specific backgrounds, and their unique motivations for having performed the alterations. Nevertheless, this study has suggested that the hypothesized economic and cultural societal shifts contributed the most to the past residential intensifications in the two study areas. Furthermore, as the economic factors were the more significant motivating influences, governments might effectively stimulate minor residential intensification through policy incentives which generally increase the attractiveness and profitability of such investment.

In the future, I will examine residential intensification in a larger, more rapidly expanding city such as Toronto, where household growth is far more significant. This will provide a comparison of the number and proportion of new dwelling units attributable to intensification there, with that occurring in the medium cities studied in this analysis. In addition, in-depth interview analysis of intensifier-households will be done to assess whether or not gender, ethnicity and socio-economic status are representative of intensifiers, both in general, and in specific neighbourhoods. Future research might also include a comparison of the social forces leading to intensification with those forces leading to other private-renewal processes, such as gentrification and upgrading. Finally future study will interview and profile tenants of these newly intensified units. This will determine exactly who (gender, ethnicity and socio-economic status) benefits from this process, and how much they (and society) benefit.
8. REFERENCES


City of Windsor (1988a) *Housing Strategy Study: Volume 1.*

City of Windsor (1988b) *Housing Strategy Study: Volume 2.*

City of Windsor (1989a) *Housing Strategy Study: Volume 3.*

City of Windsor (1989b) *Home Planning Advisory Service.*
Building Department, City of Windsor: Pamphlet.


City of Windsor (1990a) *Residential Intensification: Part 1.*
Discussion Paper No. 4; September 1990 P.A.C.: Department of Planning.

City of Windsor (1990b) *Residential Intensification: Part 2.*
Discussion Paper No. 5; December 1990 P.A.C.: Department of Planning.


Report to Windsor's Housing Advisory Committee, November 28, 1990.


APPENDIX 1

RESIDENTIAL INTENSIFICATION SURVEY
Dear Resident

August 1991

I am interested in the changes you have made to a home that you either live in, or own; I'm going to call this home "the current address". More specifically, I am attempting to find out about people performing alterations to their houses. Residential intensification and deintensification are the names for the processes that we are especially looking for, whereby a homeowner either increases or decreases the number of dwelling units accommodated in an existing building. I would like you to fill out the attached survey, which you should find quite interesting. The survey tries to get you to think back about the alterations that you have done or are planning, or know about in the local neighbourhood over the last year or so.

Please feel free to complete the survey before the student interviewer has left so that he or she can return it to me. Alternatively, you may wish to complete it later, and mail it back to me in the stamped, self-addressed envelope.

I will assure you that we will keep confidential any information that you provide us. Your name, address, or any other personal identifier will not appear in the report from the project; neither will they be forwarded to any other organization or agency. This is an academic project being carried out for research purposes through the Department of Geography at the University of Windsor. Your interviewer is a carefully chosen student enrolled at the University.

Finally, please feel free to contact me at the University of Windsor at (519) 253-4232, extension #2185 if you have any question or concerns about any aspect of this survey. Thanks for your help.

Best Wishes

Wallace A. Brooks
Masters Candidate
Dept. of Geography
### HOUSE ALTERATIONS IN THE NEIGHBOURHOOD

The current address that you either live in or own is: 

| House No. | Street Name |

This survey seeks to ask you some questions about house alterations going on in the neighbourhood, and possible alterations that you have performed on the current dwelling, that you either live in or own. Residential intensification and deintensification are the names for the processes that we are especially looking for, whereby a homeowner either increases or decreases the number of dwelling units accommodated in an existing building. A dwelling unit is defined by the City of Windsor as a room(s) which have kitchen and bathroom facilities and a minimum floor area of greater than 300 square feet for the use of one (1) or more individuals as an independent and separate unit.

Feel free to leave out any questions that invade your privacy.

#### I. First let's discuss your present dwelling.

1. How long have you lived at, or owned the current address?

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) less than 2 years</td>
<td></td>
</tr>
<tr>
<td>b) 2 to 5 years</td>
<td></td>
</tr>
<tr>
<td>c) 5 to 10 years</td>
<td></td>
</tr>
<tr>
<td>d) 10 to 20 years</td>
<td></td>
</tr>
<tr>
<td>e) more than 20 years</td>
<td></td>
</tr>
</tbody>
</table>

2. What kind of dwelling was the current address when you initially moved in, or purchased it?

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Single family dwelling</td>
<td></td>
</tr>
<tr>
<td>b) Duplex, triplex, double-duplex (one dwelling divided upstairs/downstairs into two or more dwelling units)</td>
<td></td>
</tr>
<tr>
<td>c) Semi-detached dwelling (one dwelling divided side-by-side into two dwelling units by a common interior wall)</td>
<td></td>
</tr>
<tr>
<td>d) Row dwelling (one dwelling divided side-by-side into a row of three or more dwelling units attached by common interior walls)</td>
<td></td>
</tr>
<tr>
<td>e) Multiple dwelling (one dwelling, other than a double duplex or row dwelling, containing a minimum of three dwelling units)</td>
<td></td>
</tr>
<tr>
<td>f) Vacant lot</td>
<td></td>
</tr>
<tr>
<td>g) Other</td>
<td></td>
</tr>
</tbody>
</table>

3. a) How many people in total, occupied the dwelling when you initially moved to, or purchased the current address?

<table>
<thead>
<tr>
<th>Frequency</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>one</td>
<td></td>
</tr>
<tr>
<td>two</td>
<td></td>
</tr>
<tr>
<td>three</td>
<td></td>
</tr>
<tr>
<td>four</td>
<td></td>
</tr>
<tr>
<td>five or more</td>
<td></td>
</tr>
</tbody>
</table>

1
3. b) How many people in total, occupy the dwelling now on a regular basis?

- one  
- two  
- three  
- four  
- five or more  

4. Are you the resident owner, renter, other, or absentee owner of the current address?

---

II Let's discuss the neighbourhood around the current address. I am going to ask you to imagine looking out from the front and rear porches during the past year and tell me what you generally saw or knew about. I think that thirty-or-so houses are visible from the front and rear porches, and I'd like you to define this as the local neighbourhood. I'm particularly interested in any alterations to the neighbouring houses.

5. How much of the following activities did you see or know about in the local neighbourhood? Use this scale to rate the activities.

<table>
<thead>
<tr>
<th>none</th>
<th>a little</th>
<th>some</th>
<th>lots</th>
<th>excessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

- a) neighbour(s) performing general upkeep (painting, gutters, yard work) to their dwelling(s). ________________________________
- b) neighbour(s) building addition(s) to their dwelling(s) ________________________________
- c) neighbour(s) renovating their dwelling(s) to accommodate additional households. ________________________________
- d) neighbour(s) adding a secondary staircase to the exterior of their dwelling(s) ________________________________
- e) new single family dwelling(s) being constructed on vacant land ________________________________
- f) new semi-detached dwelling(s) being constructed on vacant land ________________________________
- g) new duplex dwelling(s) or small apartment buildings being constructed on vacant land ________________________________
- h) new row dwelling(s) or large apartment buildings being constructed on vacant land ________________________________
- i) neighbour(s) demolishing dwelling(s) in the neighbourhood ________________________________
- j) neighbour(s) removing existing dwelling units from their dwelling(s), such as by dismantling of interior walls or removing doors ________________________________
- k) other ________________________________
6. Using the scale provided, what do you think will be the effects of house alterations, if any, in the local neighbourhood?

<table>
<thead>
<tr>
<th>none</th>
<th>a little</th>
<th>some</th>
<th>lots</th>
<th>excessive</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

- a) The house alterations will mean the physical deterioration of the converted houses.
- b) They will contribute to the physical deterioration of the local neighbourhood.
- c) They will decrease the home’s property value.
- d) They will cause more traffic congestion.
- e) They will cause more parking congestion.
- f) The house alterations will contribute to overcrowding in the neighbourhood.
- g) They will contribute to more local crime.
- h) They will bring more wealthy residents in the neighbourhood.
- i) They will bring more poor residents in the neighbourhood.
- j) The house alterations will attract residents of a different social class than me.
- k) They will attract residents of a different race than me.
- l) They will bring in more older families than mine in the neighbourhood.
- m) They will bring in more younger families than mine in the neighbourhood.
- n) The house alterations will bring more single parent residents in the neighbourhood.
- o) They will bring more non-family residents in the neighbourhood.
- p) They will introduce more renters in the neighbourhood.
III Now let us discuss the alterations you've made to the dwelling.

7. Indicate with a check the type(s) of alterations that you have performed, if any, since the time you moved into, or purchased the current address?

Feel free to consult the definitions provided before question 1.

a) constructed an addition to the side of the dwelling to create an additional dwelling unit.

b) added a basement apartment.

c) constructed an addition to the top of the dwelling to create an additional dwelling unit.

d) taken in a boarder(s).

e) performed interior renovations to create an additional unit(s).

f) constructed a separate dwelling on the lot.

g) constructed a new dwelling on a vacant lot.

h) torn out walls or doors etc. to eliminate dwelling units.

i) other______________________________

j) none _______________________________

8. If you have not performed any of the types of alterations mentioned in question 7, how important were any of the following factors in your decisions not to do anything? Use this scale to estimate your importance scores.

<table>
<thead>
<tr>
<th>unimportant</th>
<th>slightly important</th>
<th>important</th>
<th>very important</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

write a score between 0 and 100 in each of the boxes.

a) I do not have the time to alter the house.

b) I cannot afford to alter the home.

c) the property taxes might be raised owing to alterations I might make.

d) I do not want to take out a loan to alter the home.

e) I will be moving, or selling the property in the foreseeable future.

f) the home's size, layout or age is not suited for it.

g) I do not want to take on a boarder.

h) I do not want to take on a tenant.

i) the neighbours are not altering their houses.

[continued on next page]
9. How important were any of the following factors in your decision to alter the home you live in, or own? Use this scale to estimate your importance scores.

<table>
<thead>
<tr>
<th>unimportant</th>
<th>slightly important</th>
<th>important</th>
<th>very important</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

Write a score between 0 and 100 in each of the boxes.

a) I derived a source of income from the alterations ........................................

b) I have the additional income to increase my standard of living ...................

c) I obtained companionship from tenants or boarders ...................................

d) I experienced an increase in my personal security ...................................

e) I have additional space for the family ......................................................

f) I improved the home's resale value ..........................................................

g) I improved the appearance of the home .....................................................

h) I have gone along with the neighbours who are also doing this work ...........

i) I helped pay off the mortgage .................................................................

j) the neighbourhood's zoning allows for conversion ...................................

k) I had the handy-man skills to do such work .............................................

l) I have better used the surplus space in the home ....................................

m) any other ....................................................................................................

10. Indicate (with a check) the type(s) of house alterations you plan to perform on the home you live in, or own, during the next two years?

a) construct an addition to the side of the dwelling to create an additional dwelling unit.

b) add a basement apartment

[continued on next page]


11. Why do you remain living in, or owning the current home? Using the scale provided, rate the following reasons for remaining living in, or owning the current address.

<table>
<thead>
<tr>
<th>unimportant</th>
<th>slightly important</th>
<th>important</th>
<th>very important</th>
<th>extremely important</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>25</td>
<td>50</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

write a score between 0 and 100 in each of the boxes.

a) the family is comfortable here. ......................................

b) friends and/or family are near by ...................................

c) the property is close to downtown ...................................

d) the property is close to the waterfront ............................

e) the home is affordable relative to other areas. .................

f) it is close to place(s) of employment or other major services...

g) I can’t afford to move, or purchase anywhere else .............

h) it’s okay for the moment but I will soon be moving or selling.

i) I like the neighbours ...................................................

j) other.............................................................................

k) don’t know. ....................................................................
IV You and your family.

Finally we would like to collect some information about your family or household. Remember that you can omit any questions that invade your privacy.

12. How many of your family or household are in each of these age groups?

☐ 0-4 years ☐ 5-18 years ☐ 19-24 years ☐ 25-34 years
☐ 35-50 years ☐ 51-65 years ☐ more than 65 years

13. Indicate the highest level of education attained by the members of your family or household.

Elementary ☐ High school ☐ Technical/Vocational institute ☐ University ☐

14. What is (are) the occupation(s) of your household's primary wage earner(s)?

15. Estimate your total family or household income for the past twelve months. Check the appropriate box.

$ 0 - $15,000 ☐ $45,000 - $60,000 ☐
$15,000 - $30,000 ☐ $60,000 - $75,000 ☐
$30,000 - $45,000 ☐ $75,000 and over ☐

16. Thank you for answering our questions. Do you have any other comments about house alterations that you would like to add?

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

17. If you would like to participate in a more detailed conversation about house alterations in the neighbourhood, and your involvement, I will be carrying out a further assessment as part of my graduate studies, please write your name and address here:

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

_________________________________________________________________________

Have a Good Day! Thank you very much for your help!
VITA AUCTORIS

NAME: Wallace Arthur Brooks

BORN: Windsor, Ontario

DATE: March 8, 1966

EDUCATION:
Walkerville Collegiate Institute, Windsor, Ontario. 1980 - 1985

University of Windsor, Windsor, Ontario. 1985 - 1990, Honours B.A.

University of Windsor, Windsor, Ontario. 1990 - 1993, M.A.
FIGURE 1. Economic Forces Leading to Residential Intensification.

FIGURE 2. Demographic and Cultural Forces Leading to Residential Intensification.

FIGURE 3. Governmental Forces Leading to Residential Intensification.

TABLE 1. Respondents' Past and Future House Alterations.

TABLE 2. Logit Analysis of Forces Influencing Past Intensification.