Rough Answers:
Abiding Concerns about Gender Discrimination and Access to Mortgage Funding

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ABSTRACT

The economics and finance literature on mortgage lending is unclear with respect to the degree, if any, of discrimination against poor women, and much other social science literature (sociology and geography), feminist and otherwise, argues that economic conditions and gender go hand in hand. This paper augments a virtually non-existent literature on how Canadian mortgage lenders behave in practice, reporting on an experiment run in British Columbia to see whether local mortgage lenders made loans based on the income guidelines of CMHC or if they stereotyped poor women as bad risks.

RÉSUMÉ

La littérature sur l'économie et sur la finance des prêts hypothécaires n'est pas claire en ce qui concerne le degré, s'il y en a, de discrimination contre les femmes pauvres, et d'autre littérature de science humaine (sociologie, géographie) féministe et autre, soutient que les conditions économiques et le sexe vont de pair. Cet article augmente une littérature presque non-existante sur la conduite des institutions canadiennes de prêts hypothécaires, rapportant une experience faite en Colombie- Britannique pour voir si le institutions de prêts hypothécaires locales faisaient des prêts selon les lignes directrices d'après le revenu de la SHLC ou si elles stéréotypaient les femmes pauvres en tant que mauvais risques.

INTRODUCTION

"The poor useth intreaties; but the rich answereth roughly." Proverbs 18:23

Financial institutions engaged in housing credit lending are generally assumed to be seeking maximum profits.[1] Given this goal, and absent transaction costs or a taste for discrimination, it would generally not make economic sense to discriminate against any group of potential borrowers. The reasoning is that, even if relatively poorer, they are still potential suppliers of funds - and given good credit histories - attractive users of funds. Despite these beliefs about financial firms, rumours and tales of unfair treatment suffered by various individuals at the hands of their mortgage lenders persist. Many of these stories are about banks treating women rather less well than white males, and poorer people (perhaps especially those on social assistance) badly when compared to richer ones. Does the data and literature suggest we

should be concerned about these stories in Canada, or are they merely examples of urban legend?

In the summer of 1996, a small research grant enabled us to hire two students to help directly test whether or not there was any truth to the anecdotal evidence. Based on such anecdotes and on the literature reviewed in some detail below, it was our belief that local financial institutions, if approached by a middle class white male seeking mortgage pre-approval, would pre-arrange a mortgage for at least as much money as would be indicated by the Canadian Mortgage and Home Corporation (CMHC) guidelines. In contrast, we expected that local lenders would stereotype a single welfare mother and offer to lend her less than CMHC guidelines would indicate. We believed, in other words, that our local mortgage lenders would discriminate against her because of her gender, her poverty and perhaps particularly, her use of social assistance.[2]

This paper first reviews the literature on discrimination in mortgage lending, beginning with

the feminist housing literature and that found in geography and sociology, followed by the recent North American economics and finance literature. Then our methodology and results are described. Finally our abiding concerns about current lending practices in small-city Canada are reported.

THE GEOGRAPHY, SOCIOLOGY AND FEMINIST HOUSING LITERATURE

Urban geographers point out that mortgage lenders are likely to stereotype properties by "red lining," so called because the lenders draw red lines around neighbourhoods perceived as "bad risks" (Knox 1995). Mortgages are refused to applicants wishing to live in these neighbourhoods. This practice diminishes property values and increases neighbourhood deterioration, thus indirectly discriminating against individuals who currently live there as well as those who want to buy homes within such parts of the city (Knox 1995). In part because of laws banning this practice (Knox 1995), mortgage lenders are extremely reluctant to admit to red-lining policies, but the practice continues. While especially common in England and the United States, red lining does occur in Canada (Bourne and Bunting 1993). Because our areas of urban poverty are less concentrated and visible than either the United States or Great Britain (Ley 1991), the practice is thought not to be as extensive. Single mothers, visible minorities, immigrants and students suffer the consequences since they tend to be localized in bad risk areas (Knox 1995).

The geography literature also suggests that mortgage lenders make judgements about applicants based on "social conventionality" as well as "financial caution" (Knox 1995, 140). As in the literature on mortgage lending practices, the evidence is spotty. Many early studies from the 1960s and 1970s do not consider gender as an explanatory variable, not entirely surprising as fewer women applied for mortgages during this period. The studies that report bias are typically based on interviews with mortgage lenders who displayed certain discriminatory notions and attitudes, particularly toward class and race.

Unfortunately, none of these studies are Canadian. A study by Sylvia Novac (1996) was based on interviews with women living in major immigrant-receiving cities and focussed on the needs of immigrant and minority women. It would, however, be difficult to argue a general bias toward class in Canada when home ownership among blue-collar workers has been consistently higher than among the middle-class (Harris and Pratt 1993).

With the rise in the numbers of female-headed households and in the numbers of women earning high incomes, one would expect an increase in the number of women applying for mortgages. The Canadian government reports that "the likelihood of women owning their homes depends, in large part, on their family status. In 1994, for example, 79 per cent of women in two-spouse families lived in an owner-occupied home, whereas only 48 per cent of unattached female seniors, 33 per cent of unattached women aged 15-64, and 31 per cent of female lone parent families owned their homes" (Government of Canada 1998).

Single mothers comprise one group of borrowers whom lenders may regard as financially unattractive. The feminist literature on housing shows that regardless of which wealthy Western country you look at - Canada, Britain, Australia or the United States - lone-parent families, most of whom are led by women, are less likely than other family types to own homes, being more likely to rent, share accommodation, or suffer overcrowding in their living situation. As well, they spend a disproportionate amount of their income on shelter (Winchester 1996; Harris and Pratt 1993).

The literature also suggests a growing polarization is occurring between financially secure professional women and those women below the poverty line, namely single mothers and elderly women living alone. Only 20 percent of Canadian women have full-time, full-year jobs which pay more than $30,000 per year, compared to 40 percent of men (Canadian Labour Congress 1997).

THE ECONOMICS AND FINANCE LITERATURE

Because Europeans use vastly different methods of housing finance, particularly for the poor, the finance literature we considered was primarily North American. During the presidency of John Kennedy and later with Lyndon Johnson's "Great Society," the US began a legislative emphasis on equality of opportunity. By the Carter administration, governmental intervention moved from laws aimed at voting rights to those directed at access to good housing and therefore to the financial system for all Americans, regardless of race and (later) gender. At the time of the passage of the *Equal Credit Opportunity Act* (1974), such topics as the provision of mortgage credit were common in the US economics literature.

In general, economist researchers use quantitative rather than qualitative data. By the end of the 1970s, due in no small part to the *Community Reinvestment Act* (1977) and later with the *Financial Institutions Reform, Recovery and Enforcement Act* (1989), these researchers in the US gained access to a wealth of data. This data structured the character of modern economics and finance literature in a way that cannot be matched in the Canadian literature as our researchers lack access to the most minimal data about those who apply for mortgages.

A vital source of recent US discussion has been the "Boston Data set" lending information collected by the Boston Federal Reserve. A study based on this data (Munnell et al. 1992) seemed to provide clear evidence that, in spite of the laws passed during the Johnson and Carter presidencies, lending discrimination continued. Because of the tendency on the part of mainstream economists to assume that markets should, at least over time, clear, such results were at best disconcerting. These results were suspect, however, because the data set was extraordinarily dirty.

A survey article by Calomiris, Kahn and Longhofer (1994) attempted to reconcile these results with free market economic theory. They examined and analysed governmental intervention in the mortgage markets, considered the evidence of such discrimination, then modelled and described the expected consequences of several alternative explanations for such apparent discrimination. These explanations included a taste for discrimination on the part of lending officers; "rational discrimination" resulting from costly information gathering;[3] the closely related cultural affinity model; and, finally, moral hazard.

Relying on a cleaned version of the much maligned Boston Fed data set and using only data from conventional loans, Hunter and Walker (1995) tested the cultural affinity model. Perhaps because their sample size was fairly small, there was no clear evidence of gender discrimination. Importantly, they did find some evidence that such characteristics as poor credit histories, high obligation ratios, and "bad neighbourhood" effects mattered and that they mattered far more in combination with minority status.

One interpretation of these results is that when "objective" measures of credit worthiness are negative, lending officers (as agents) can indulge their taste for discrimination with minimum risk of being caught. A second interpretation is that when the objective evidence, including obligation ratios, is negative and information about potential borrowers is costly, "statistical" discrimination is rational because information costs about applicants differ. Hunter and Walker felt most comfortable with the latter interpretation of the facts of the Boston data set.

A simple lack of cultural affinity, however, suffers some weakness as a long term explanation for such behaviour. From the perspective of a shareholder, the cultural affinity explanation represents an agency problem. Imagine that while a given loan officer lacks cultural affinity with, for example, a welfare mother, s/he is sufficiently comfortable with higher income applicants to be able to tell which of them will pay back loans. This loan officer would generally make loans to the "good" high income applicants, but to few, if any, applicants on social assistance because obtaining information about them is costly. Surely, however, there are other loan officers, who at some time had been on social assistance, for whom this cultural gap would not exist. While *those* loan

officers *might* in turn lack cultural affinity with wealthier applicants, it seems less likely (since they are now in that group). By hiring an employee who had received social assistance in the past, *ceteris paribus*, these financial institutions would be able to attract all of the good (that is those who will repay) borrowers who are poor or on social assistance who would be overlooked by other banks, and make increased profits for the firm's owners. A failure to recruit such officers itself represents either shortsighted or discriminatory behaviour on the part of the bank management, and can persist only if owners do not become aware of the lost opportunities for profits.

In the years since the publication and dissemination of these papers, there have been several attempts to clean the data and/or alter the statistical methodology to gain a clearer insight into what this data set really shows. Most recently, Harrison (1998), who adjusted the statistical methods, and Day and Liebowitz (1998), who found the cleaned data still suspect, concluded that they contained little evidence of systematic discrimination in mortgage lending based solely on race or gender. Both papers emphasized that the actual issue was probably better described as banks refusing to lend to individuals who have weak economic characteristics.[4]

Weak economic characteristics include, for example, a poor credit condition (a "bad bureau") or a high obligation ratio. A poor credit condition may have been the result of being young and financially innocent. A high obligation ratio means the individual is spending a very large fraction of his or her income on housing. While one might be willing and able to maintain that behaviour for a few years, postponing the acquisition of capital goods and running down current assets, it is more difficult to do over a thirty-year period. However, the relevant issue to the lender is not only current income, but also expected income. As well as to historic dead-beats, traditional financial institutions might want to refuse lending to those currently poor who are expected to remain poor. Such individuals cannot reasonably be expected to maintain these relatively high payments for the duration of the mortgage, and obviously lack the ability to shorten the payment period by paying larger than required payment amounts.

AN ALTERNATIVE VIEWPOINT

If one is willing to engage in stereotyping, the expected income of a given white, single mother, particularly one who is receiving social assistance, will be lower than that of a given white male. For a lender, poverty over the lifetime of a mortgage is risky if it results in a high obligation ratio, even in the face of a good credit history. One might not be comfortable that someone with a low income (and therefore a low expected income) would be able to continue making monthly mortgage payments. However, such an applicant might not be able to cover the unexpected - but not uncommon - expenses associated with owning a home. The lender will therefore decline such an applicant. The difficulty, then, is that while stereotyping is, of course, a form of discrimination, it may well be actuarially sound.

The difficulty in practice is that because economic characteristics correlate tightly with gender-absent specific information about the future income prospects of a given loan applicant, a refusal to lend based on economic characteristics, while rational, risk-adjusted behaviour, may well be *de facto* discrimination. One regulatory alternative would be a prohibition of the use of economic characteristics as a basis for refusing lending. However, the results of that cure are probably far worse than the disease. Still, governments typically do choose to reduce this risk, in spite of Mr. Harrison's and others' "second best" advice. In Canada, the CMHC and its insuring of mortgages have accomplished this end. By guaranteeing the mortgage of anyone falling within CMHC's standards and practices, the mortgage lender does not suffer default risk. When a financial institution refuses a mortgage CMHC would have approved, absent of any other information about the applicant's future income potential, this too would seem *de facto* discriminatory. But unlike the US, in Canada there is no equivalent of the CRA or FIRREA, nor are there counterpart watchdog agencies to the Office of the Controller of Currency

(OCC) and of Housing and Urban Development (HUD), gathering and interpreting the data necessary to monitor lender performance.

METHODOLOGY

To search for evidence of discriminatory stereotyping, an experiment was devised and conducted during the summer of 1996. In particular, the questions posed by the experiment were, first, did lenders actually follow CMHC lending guidelines, and, second, did they lend based on a best estimate of future earning. Being financially constrained by the size of our grant, we maximized the chances of finding stereotypic discrimination by comparing the ways local lenders in a small city in western Canada responded to a young, married white male and a divorced, single parent welfare mother.

Following the methodology used by HUD, and OCC,[5] paired testers were sent into the mortgage market to see if financial institutions treated them differently or similarly to one another. To test for the expected discrimination, two business degree students entering fourth year were hired.[6] We had initially planned to use imaginary credit data, alternating the income status of the male and female tester, so that half of the time each of the testers would be the higher income individual. However, the regional credit bureaus declined to cooperate with this process,[7] so the choice was made to have both members of the team tell the truth about their circumstances. Thus all lenders faced a financially better off white male and a poorer white mother on social assistance. The first of these students, D, was a white male whose wife worked at a fairly low-paying, but permanent, full-time job. D worked, when possible, to supplement the family income. In total, they earned about $36,500 per year, slightly above the median family income in British Columbia. D, who was studying accounting, told the lender that he and his wife were considering buying a house in the spring, as soon as he found an articling position. They hoped to be able to take advantage of a good buy, but to do so they needed to know ahead of time how much mortgage they could obtain. He was a

lender's dream student, already middle class and moving up.

The second student, J, was on social assistance and a single parent of a daughter. Like D, J was studying accounting, but she was also interested in art (especially oil painting). She earned income by modelling for the university fine arts classes. She was clearly "different" from the average small town banker. However, she should have been seen as facing good future income prospects, based on her high marks, once she obtained her accounting degree.

Table 1, found in the appendix, shows the relationship between the family unit size and the amount of money that a welfare recipient would receive in direct support and shelter allowance from social assistance in British Columbia. The highlighted row shows that such a family unit receives $383 support allowance and up to $520 shelter allowance. Shelter allowance can be used for rent or mortgage payment (both interest and principal), taxes, and regular maintenance. Individuals were allowed to keep $200 a month of any earnings. (This rule has changed since the data was gathered. Single parents may now keep 25% of any earnings.)

In addition, such a family receives other government support including subsidized day care, free medical care, a free bus pass, drug coverage, etc. Before they can go onto social assistance the family must draw down its assets. However, they may retain up to $5500 in savings.

As well, in British Columbia, a family unit may exclude from the assets that must be drawn down "the family home, partially or wholly owned and lived in by a recipient" or "moneys received or to be received from a mortgage on, or agreement for sale of the recipient's previous home used as his or her ordinary residence, provided such moneys are applied to the amount owing on a home being purchased by that recipient and occupied as his or her ordinary residence, or provided such moneys are used by that recipient for the payment of rent for accommodation occupies as his or her ordinary residence" (Guaranteed Available Income for Need Regulation 8(3)(d) and 8(3)(f)). While the poor in BC can still keep their houses and go on social

assistance, this is not true in all provinces. For example, as one of the reviewers pointed out, it is not true in Ontario (where, of course, the head offices of several of our mortgage lenders are located).

J owned a condo and was considering selling it and buying a small house. Following the provisions of the social assistance act, she should be able to extract her equity, about $30,000, and use it as a down payment on a house, with social assistance paying the mortgage holder the monthly principle, interest, and taxes, up to the maximum of the shelter allowance. This was what J proposed when she spoke to the lenders. All mortgage lenders in the city - over two dozen banks, trust companies, credit unions, and mortgage companies - were approached by J as well as by D.

The highlighted row in Table 2, again in the appendix, shows the relative size of J's shelter allowance to her living allowance. If this were used to determine J's borrowing, her obligation ratio would be about 58%, slightly better than the percentage used by Hunter and Walker for their bad obligation ratio statistic. The total living allowance excludes a rather large day care subsidy, free bus transportation, free medical care and subsidized drug coverage, so 58% percent overstates the actual obligation ratio. As well, unlike the sample group in the Hunter and Walker case, and unlike the case of the working poor, a borrower on social assistance has housing funds supplied by the government which can be paid directly to the lender. Thus the lender incurs default risk only if and when the recipient succeeds in getting off social assistance. Because we dealt with a mortgage pre-approval, and because of the nature of the community, there was no real equivalent of the Hunter and Walker "bad neighbourhood." Finally, both of the individuals in the experiment had a good credit rating.

In Canada, the CMHC, like the FHA in the US, restricts the obligation ratio acceptable for a guaranteed loan. Specifically, CMHC loans require a maximum gross debt service ratio (i.e., principle, interest, taxes, heat, plus one-half of any strata or condominium fee compared to income before taxes) of 32%, slightly lower than the *median*

obligation ratio of Hunter and Walker. While Canadian mortgage lenders typically credit ration, rather than price discriminate, some institutions charge higher rates than others. Thus a loan applicant turned down by a bank might be able to find funds, but only elsewhere and at a higher rate. How did we expect our two students would be treated?

WHAT WAS ANTICIPATED?

Using current CMHC guidelines and appropriate longer term mortgage rates, [8] Tables 3-6 in the appendix show the maximum house prices J could, in principle, afford under four different assumptions. Table 3 considers the case where she sought a conventional loan, which requires 25% down, and was allowed to use her total living allowance as if it were earned income. Because CMHC rules restrict the borrower to using 32% of this income for housing, principal, interest and taxes (pit), J had $289 = .32 x $903 to spend on monthly payments. Yearly taxes were estimated at $13.7496 per $1000 of house value, insurance costs at $2.5533 per $1000 of house value and yearly hydro/gas at $4.28 per $1000 of house value. Tax estimates were based on the town's average tax rates, supplied by the city assessor's office. Heating cost was estimated based on the relationship between its typical price per square foot and the relation between size and house price. Finally, insurance was estimated using the "rebuild cost guide" for insurance. We were able to calculate that J ought to be able to borrow $27,207 for a mortgage, as shown in the highlighted row.

Making the same assumptions about taxes, hydro/gas and insurance, Table 4 calculates the amount J could borrow if she were applying for a low down payment loan. In this case, the amount was $32,978.

If CMHC were to allow J to use the full amount of her shelter allowance on housing, principle, interest, taxes and gas/hydro, as would be the case for her current condo, her allowable spending would be higher. Since welfare recipients in British Columbia only receive the shelter allowance if they are spending it, CMHC might

allow her to use this sum: Tables 5 and 6 replicate tables 3 and 4 using the higher shelter allowance. In these cases, depending on the type of loan chosen, she could borrow up to $58,856 as a mortgage and still meet CMHC guidelines.

Because J had more than the minimum down payment, the maximum house she could afford would be higher than that listed in the column "most expensive house" on Tables 3- 5 for two person family units. To find J's maximum affordable house, we added her equity of $30,000 to the amount of mortgage she could receive for each of the four loans CMHC might approve.

Based on discussions with CMHC's, we learned their guidelines are quite straightforward:

1.   Individuals obtain CMHC loans via financial institutions based on their income.

2.   For individuals on social assistance and if it appears that they have been on such assistance for some time (12 months was the time span mentioned by several offices) and are likely to continue on assistance for some time (as in the case of a single parent of young children), that assistance counts as income.

3.   Any extra amount by which the shelter allowance might exceed the allowable payments will be forfeit by the welfare recipient.

Our town, K, has approximately 85,000 people. Clearly, if financial institutions choose to use CMHC guidelines to make these mortgages, the available choice set is artificially restricted.[9] Our expectation was that the financial institutions would limit loans to the CMHC standard, restricting J to using her welfare cheque as income, corresponding to the highlighted sums of money in Figure 1, below.

Using the same assumptions about tax levels, insurance, and hydro/gas cost and the same costs for borrowed money, D's expected maximum mortgages were calculated, once again using the 32% rule. Depending on whether a conventional or a low down-payment financing would be sought, the expected value of D's mortgage ranged from $92,830 to $109,744.

Finally, for comparison purposes, a row

has been added for a hypothetical full-time, minimum wage employee. Making the same assumptions as for J and D, the results show that in the bottom row clarifies why the CMHC guidelines use income rather than the shelter allowance as a lending base. (See Figure 1)

WHAT WE FOUND

D, our male tester, was offered a range of mortgages differing from one another because of the various assumptions about heating, tax and insurance. They ranged from $99,845 to $116,550, rather more generous than in our estimates, but reasonable if the financial institutions erred on the side of generosity in their estimates of the non-mortgage housing expenses.

The same generosity was not evident when local lenders dealt with J. Not a single bank, trust company, or other mortgage lender would agree to lend her anything, unless she had a co-signer upon whose income the financial institution's decisions would be made. While calls to the home office assured us this was not company policy, this might be a local "policy." We suspect that the location of headquarters of several of the financial institutions in Ontario, a province where a person must sell his or her home before being granted social assistance, may mean that very few people in this group would have the funds needed for a down payment, reducing the likelihood that they would apply for a mortgage and diminishing the banks' overall familiarity with, and perhaps sensitivity to, these issues.

What else might explain this behaviour? It could be some other form of risk aversion is operating. One possible concern suggested by two ex-bankers was that the financial institutions would not wish to see their names in the headlines when this woman's house needed a roof she could not afford, and they were forced to foreclose. A second concern implied by an anonymous referee's comments was that other poor applicants (and some wealthier ones as well) might well see it to be very unfair for people to see individuals having their mortgage paid out of taxpayer dollars. Thus banks that lent to welfare recipients might well, at best,

annoy some customers and, at worst, be targets for consumer boycotts.

While a federal body (CMHC) takes a given position, it will clearly not apply in provinces forcing sale of houses as "liquid" assets. Further, the positions of financial institutions are not clear. Even if one were to agree that the CMHC stance is "correct," and in cases like those in British Columbia where federal and provincial policy coincide, it does not follow that financial institutions have an obligation to make mortgage loans in such cases.

What is especially worrisome to us is that J had no options left to her. Regardless of whether she was refused because she was poor or because she was on social assistance, she was stereotyped. She was poor (on social assistance), and it was assumed she would remain poor (on social assistance). No lender asked her about future income or future plans. Both test subjects had informed the lenders that they were students, but none of the lenders sought information about whether J's future course of study would likely lead to a job, so that any long term concerns flowing from poverty (being on social assistance) could be diminished. Regardless, local institutions not only violated government policy and their headquarters' stated policy, but, in fact, acted in a way that apparently violated the bank's long-term profit-maximizing goals.

CONCLUSIONS

The economics and finance literature on mortgage lending is unclear with respect to the degree, if any, of discrimination against poor women. Much other social science literature (sociology and geography), feminist and otherwise, argues that economic conditions and race or gender go hand in hand. Perhaps because most economists separate gender from economic characteristics, the most recent literature argues that financial institutions act rationally, refusing to lend to people with poor economic conditions, without regard to gender.

An experiment was run to see whether or not lenders in a small city in British Columbia offered loans based on the income guidelines of CMHC. Further, this experiment sought to clarify whether, given information about current income, lenders stereotyped individuals or sought information about any likely changes in future income. The results were that not only did lenders stereotype, they refused to offer loans that were within CMHC guidelines, thus violating federal and provincial government policy, as well as stated financial institution policy.

One might hope that the outcomes observed in the limited experiment are atypical, but one suspects they are not. This case has some concerning implications. Because she was on welfare, J's mortgage payments could be paid to the financial institution directly, drastically reducing default risk. While a minimum wage job would pay slightly more than being on social assistance, the risk the financial institutions take is that if J is forced off pogey, she will not make her payments. Clearly, one might have expected the financial institutions to change their beliefs had they known she was in the process of completing her accounting degree. But unlike the famous investment advisors in the television ad, they did not ask: they simply provided their own rough answer.

Because financial limitations restricted our study methodology, we would like to extend our work to see if this response differs with more trials and when the poor person (or person on social assistance) is male. As well, we would like to contrast the working poor with those on social assistance. For now, this will have to wait for further research.

ENDNOTES

1. By this economists mean the maximization of the stream of net revenues over the expected life of a given business. Net benefits are benefits minus costs. When appropriate, benefits include non-monetary returns as the joy one gets by working for one's self. Costs include, when appropriate, non-monetary costs as the unpaid labour supplied by family members.

2. This distinction was brought to our attention by an anonymous referee.

3. In this case, the term "costly data" or "costly information gathering" refers to the fact that in order to obtain facts about a potential borrower's likelihood of repaying, the lender's loan officer will have to spend extra time and effort determining if there is additional information to gather that, if gathered, would enable the lender to make a better decision about this applicant. Unless mandated by government regulation, the additional cost of figuring out what questions to ask, what information to seek, then spending time asking those questions and obtaining that information may exceed the lender's benefit from so doing.

4. Oddly, although Harrison concludes that gender is not statistically significant, its sign is negative, suggesting refusals were *less* common, controlling for other influences, if one were female. This seems odd, since many women, especially single mothers, presumably ought to find themselves in the data group having "weaker" economic characteristics. Odder still is that marital status has a positive sign, suggesting an increased likelihood of being turned down for a loan if married. Harrison's analysis has several other odd signs, but of course, nothing is statistically significant, leaving the reader to ponder the issue, shake her head and conclude, perhaps, that nothing really happens in lending that is very much out of the reasonable and ordinary. Harrison's position is that while there may be discrimination in the labour markets, resulting, although unfairly, in weaker economic characteristics for some women, it would be inappropriate, using second best policy constraints, for society to attempt to fix labour market problems via the mortgage markets.

5. In this case, HUD and OCC are hoping to determine if lenders are in compliance with their legislated and stated goals. To do this, a deception study is used. Two individuals, one acting as a control and other representing the target of possible discriminatory practices, are sent in to "apply" for a mortgage in order to test the way in which the lender actually treats them.

6. To determine which of the characteristics - gender, poverty and/or the use of welfare - matters to lenders or if it is only the combination of these, it would have been ideal to hire six students, three women (one on social assistance, one poor but not on social assistance and one not poor) and three men (with a similar set of financial statistics). Unfortunately, the level of financial support for the project only allowed two students.

7. Since the students were seeking pre-approved mortgages, it was anticipated that at least some of the financial institutions would verify the students' credit records. Interestingly enough, that never happened.

8. Unlike the US where thirty year, fixed-rate mortgages are still common, the longest term commonly available in Canada is five years. (It is possible to obtain mortgages for up to ten years, but they are uncommon and the rate differential is high.)

9. Unlike their US counterparts, Canadian financial institutions rarely sell off their mortgages. There is, therefore, less need to standardize to CMHC guidelines.

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Figure 1: Expected Mortgage Approval

Person	Conventional Loan based on Income	Low Down-pay. Loan based on Income	Conventional loan, based on Shelter Allow.	Low Down-pay loan based on Shelter Allow.
J- max mortgage $	$27,208	$32,978	$48557	$58856
max house $	$57,208	$62,978	$78557	$88856
D- max mortgage $	$92,830	$109,744		
D- max house $	$123,770	$121,937		
min wage-max mort $	$35,612	$36,674		

APPENDIX- TABLES

Table 1
Guaranteed Available Income For Need Regulations- Schedule J (Current Through December 1995)

Unit Size	Maximum Support Allowance	Maximum Shelter Allowance	Total Living Allowance*
1	$221	$325	$546
2	$383	$520	$903
3	$486	$610	$1096
4	$589	$650	$1239
5	$692	$700	$1392
6	$795	$730	$1525
7	$898	$760	$1648
8	$1001	$780	$1781
9	$1104	$800	$1904
10	$1207	$820	$2027

Table 2
Obligation Ratio Using A 90% Shelter Allowance

Unit Size	Total Living Allowance*	Obligation Ratio (Shelter/Total)
1	$546	.60
2	$903	.58
3	$1096	.56
4	$1239	.52
5	$1392	.53
6	$1525	.48
7	$1648	.46
8	$1781	.44
9	$1904	.42
10	$2027	.40

* excludes day care, medical, transit and other subsidies

Table 3:
Conventional Mortgage and House Price Maximums, i=.08, n=300 Payments, Income-based

People In Unit	Max Support $	Max Shelter $	Available Conventional Mortgage $	Down-Payment Needed	Most Expensive House	# Avail.
1	221	325	16330.61	4082.65	20413.27	2
2	383	520	27207.53	6801.88	34009.42	14
3	486	610	33087.77	8271.94	41359.72	20
4	589	650	37444.64	9361.16	46805.80	21
5	692	700	42106.17	10526.54	52632.72	22
6	795	730	46158.36	11539.59	57697.95	22
7	898	760	50210.55	12552.64	62763.18	25
8	1001	780	53958.06	13489.51	67447.57	29
9	1104	800	57705.57	14426.39	72131.96	29
10	1207	820	61453.08	15363.27	76816.35	34

Assumptions: yearly taxes = $13.7496/$1000 of house value; yearly insurance = $2.5533/$1000 and yearly hydro/gas = $4.28/$1000

Table 4:
Low Down Payment Mortgage and House Price Maximums, i=.08, n=300 Payments, Income-Based

People In Unit	Max Support $	Max Shelter $	Low Income Mortgage $	Down + Mortgage Ins.	Most Expensive House	# Avail.
1	221	325	19794.19	2474.27	21773.61	3
2	383	520	32978.01	4122.25	36275.81	17
3	486	610	40105.39	5013.17	44115.93	20
4	589	650	45386.30	5673.29	49924.93	20
5	692	700	51036.51	6379.56	56140.16	22
6	795	730	55948.13	6993.52	61542.94	22
7	898	760	60859.75	7607.47	66945.72	28
8	1001	780	65402.07	8175.26	71942.28	30
9	1104	800	69944.39	8743.05	76938.83	34
10	1207	820	74486.72	9310.84	81935.39	40

Table 5:
Conventional Mortgage And House Price Maximums,i=.08, n=300 Payments, Shelter Allowance

People In Unit	Max Shelter $	Available Conventional Mortgage $	Down-Payment Needed	Most Expensive House	# Units Available
1	325	29,991.51	7,497.88	37,489.39	20
2	520	48,557.68	12,139.42	60,697.10	22
3	610	57,126.68	14,281.67	72,408.35	29
4	650	60,935.13	15,233.78	76,168.91	34
5	700	65,695.69	16,243.92	82,119.61	40
6	730	68,552.02	17,138.00	85,690.02	51
7	760	71,408.35	17,852.09	89,260.02	54
8	780	73,312.58	18,328.14	91,640.72	57
9	800	75,216.80	18,804.20	94,021.00	62
10	820	77,121.02	19,280.26	96,401.28	64

Table 6:
Low Down Payment Mortgage and House Price Maximums,i=.08, n=300 Payments, Shelter Allowance Based

People In Unit	Max Shelter $	Max Mortgage $	Down + Ins Needed	Most Expensive House	# Units Available
1	325	36352.43	4544.05	39987.68	20
2	520	58856.32	7357.04	64741.96	28
3	610	69242.73	8655.34	76167.01	34
4	650	73858.92	9232.36	81244.81	39
5	700	79629.14	9953.64	87592.06	50
6	730	83091.28	10386.41	91400.41	58
7	760	86553.42	10819.18	95208.76	63
8	780	88861.51	11107.69	97747.66	68
9	800	91169.60	11396.20	100286.56	74
10	820	93477.69	11684.71	102825.46	75