What the 1861 Census can tell us about Literacy: A Reply

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I

Unlike most early censuses, the second decennial survey of the population of the Canadas of January 1861 employed two styles of enumeration. The rural form was the more common, with an enumerator carrying his book from door to door, querying the inhabitants, and recording their responses on a set of schedules he held. In urban areas, however, separate schedules were printed and distributed to each household, to be completed by the head or his or her proxy, collected and checked by enumerators. For the first time the census inquired about the literacy of all inhabitants aged twenty years or more. On either version of the census, columns 25-M and 26-F (males and females) asked that the compiler indicate the "persons over 20 who cannot read or write." Following the practice began in the United States in 1850 (there the 1840 Federal census demanded household totals rather than data for individuals and departing from English enumeration which never asked about literacy), the Census of the Canadas, at a time of educational reform and expansion, made its first attempt to isolate the educational levels of the population. The returns, in the form of manuscript schedules, provide the first systematic survey of the literacy of Canadian adults. The census schedules provide a basis for, first, the estimation of rates of adult literacy for province, county, town, and township, and more importantly, for the study of variations in the social distribution of literacy and its value to individual men and women.

Of all sources employed in the historical study of literacy outside of Scandinavia, the census has potentially the broadest coverage. Surveying, in theory if not in actual practice all persons resident in the the Canadas, the census gave specific attention to the literacy ability of the adults, those aged twenty years or more. The wording of the question, in the negative, suggests that the authorities presumed literacy to be not uncommon, that the greatest number of individuals or household heads could respond by leaving the appropriate column blank. The census then solicited the desired information from the entire population, including nonheads of households, rather than from a biased subsample that a survey of deeds or wills would provide. It provides data on members of the population who were unmarried and who would have been missed by a source such as the English marriage registers, as well as the landless and

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those who died intestate.[1] Furthermore the census supplies a greater amount of direct information on each individual resident. Data on occupation, age, sex, marital status, birthplace, religion, and the family and household of membership are readily available. This information not only gives the census an advantage in variety and quantity of relevant data, it facilitates the linkage of supplementary records, such as wealth reports, to it. In essence the census in coverage representativeness, and versatility, holds the greatest potential for the student of literacy in mid-nineteenth-century Canada. As such it serves as the basic source for the analysis of literacy's relationship to social structure, and the meaning of literacy and illiteracy to individuals in the cities of Canada West.[2]

Printed on each schedule to be distributed to urban households were the words of the census legislation, 16th Section, 3d and 4th subsection, Act 22, Victoria 33 (Consolidated Statutes): "every occupant of any House, or any distinct story, apartment or portion thereof, which or for whom, any such schedule is left as aforesaid, shall fill up the same to the best of his or her knowledge or belief and sign the same...". In this way the counting of the peoples and the survey of their characteristics was conducted in January of 1861 in the cities of Upper Canada. One portion of the schedule inquired about the literacy ability of each adult inhabitant of any household. The very style in which the urban census of this year was conducted strongly suggests that the authorities recognized that they were dealing with a largely literate adult population. The distribution of separate schedules to each household in a population without mass literacy would have been foolhardy, a questionable procedure which would have demanded gross underenumeration of persons, general inaccuracy, and severe complications in compilation. Not surprisingly, the urban census uncovered high rates of adult literacy, ranging over ninety per cent in the cities of Upper Canada.

The style in which the literacy question was worded forms the definitions of literacy and illiteracy. Limited to adults, few of whom would have the opportunity for further schooling, we are concerned with illiterates "who cannot read or write." No measure of literacy is unambiguous; all require interpretation on the part of the researcher, and the census is no exception. The phrase, "cannot read or write," leaves unclear whether it defines an either/or situation or requires an inability to carry out both operations. In either case, the specification provides a minimum level of literacy with which the researcher may safely carry out analysis. A person who was able to read but not write could respond accurately by affirming his or her literacy. Stone, Webb and Schofield, to

[1] On the use of wills, deeds, and marriage registers, see Kenneth A. Lockridge, *Literacy in Colonial New England* (New York: 1974) and Roger S. SCHOFIELD, "The Measurement of Literacy in Pre-Industrial England," in Jack GOODY, ed., *Literacy in Traditional Societies* (Cambridge: 1968), pp. 311-325. For a statement on the census and literacy, see Daniel CALHOUN, *The Intelligence of a People* (Princeton: 1973). It should be made clear that this essay supercedes all my previous methodological discussions.

[2] Full documentation for this essay is found in my "Literacy and Social Structure in the Nineteenth-Century City," (unpublished thesis, Ph.D. University of Toronto, 1975).

cite the best examples, have convincingly argued that throughout English history one would commonly learn to read before learning to write. Canadian curricula were no different in this respect. Those who constructed the census question, it would seem, were aware of how literacy was transmitted. They took this into account in placing the conjunction "or" in their definition of literacy and in ordering the words reading, then writing. Presumably, a person literate could read or he could read and write, depending on the length and breadth of his or her schooling and needs for these skills that his or her life demanded. An illiterate person was one who could not read.

Attention has focused on the accuracy of the census; this was reflected at the time the 1861 census was taken and has been shared by scholars and commentators ever since. The reliability of census data, including that on literacy, has been questioned and the role of social stigma has been considered as a force which would counter the admission of illiteracy. Several factors contradict these doubts: external evidence, the style and practice of urban enumeration, and the patterns of results. First is the role of explicit legal sanctions against giving false information. The instructions printed on each form declared that "any false return of all or any matters specified in any such schedule shall hereby incur a penalty, of not less than EIGHT, nor more than TWENTY DOLLARS. The several enumerators have express orders to rigidly enforce the observance of the foregoing clauses." It is doubtful that the law was strictly enforced, but the sums involved were not insubstantial and in the absence of evidence to the contrary, it is not valid to argue that the threat of penalty carried no weight to an individual completing his own or another's census schedule.

The press as well conducted a campaign urging public acceptance and compliance with the census, and in this they were joined by religious leaders. In the city of Hamilton, for example, the daily *Spectator* of January 5, 1861, urged the city's residents to complete with accuracy the forthcoming census schedules. On the following day, the *Spectator* addressed its attention to the instructions for filling out the census and provided detailed explanations. On January 10 they reported that the Roman Catholic Bishop has urged his parishioners to comply fully with the regulations and instructions of the census and on the 15th, it was announced that the Anglican Bishop had demanded that his adherents do the same. The climate of opinion, at least at the top of the communications ladder and among opinion leaders, lent strong support to full compliance with the census of the population. Hamilton provides only one example of this common effort. For various reasons there was substantial support and interest that the counting of the people and the survey of their characteristics be accurate and complete.

The stigma of admitted illiteracy represents another factor which might mitigate against the accuracy of the data. However, all literacy researchers have concurred with Robert Webb, that "a good many people

would admit to illiteracy."[3] Illiterate gentlemen are not an uncommon discovery and all studies have found at least a few well-to-do or even wealthy individuals, including some in high status occupations, who were illiterate. Such persons lived in Hamilton, Kingston, and London, casting doubt on the effects of social stigma's preventing or reducing the admission of illiteracy.

Additionally, the structure of enumeration made it difficult for illiteracy to be hidden. An illiterate head of household would of course be unable to complete his or her own census schedule and another party, whether the enumerator, a neighbor, or another member of the household had to fill out the form. This person would certainly be aware that the household head could not do so for him or herself. Would the second party have reason to obscure this fact, or to perjure himself against a law he could read for the questionable benefit of an illiterate, especially in view of the fact that he would often affix his own signature to the form, with or without the illiterate's mark? Urban enumeration procedures thus tended to encourage the admission of illiteracy.

With a source such as a census, some under-enumeration of the population must be expected. Checks on recent censuses have revealed that the poor, the residents of ghettoes and slums are most likely to be missed. No doubt this was a feature of nineteenth-century census-taking practices as well, although the lesser extent of residential segregation may have allowed their coverage to be somewhat more complete. Under-enumeration nevertheless would miss some illiterate men and women whose numbers are impossible to estimate. Any rates of literacy derived from a census must therefore be approximate; this of course is the case with virtually all historical data. However, rates alone permit a limited perspective on the distribution and meaning of literacy. The individual is the more important unit of analysis, and with this emphasis the problem of under-enumeration is less acute. The census points directly to the literate and the illiterate adults resident in each city. While some illiterates are certainly missed by faulty enumeration and some few are perhaps inaccurately considered literate, we can little doubt that self-admitted illiterates were in fact unable to read or write. These men and women comprise the core of an attack on illiteracy in the mid-nineteenth-century cities of Upper Canada (Ontario).

II

In a recent report, H.J. Mays and H.F. Manzl, while acknowledging the veracity and logic of my arguments for the use of the census as well as its great potential for literacy studies, have questioned the reliability and accuracy of this literacy data.[4] Specifically, their attack takes two

[3] "Literacy among the Working Classes in Nineteenth Century Scotland," *Scottish Historical Review*, 33 (1954), p. 106.

[4] "Literacy and Social Structure in Nineteenth Century Ontario: An Exercice in Historical Methodology," *Histoire sociale — Social History*, 7 (Nov. 1974): 331-345. See also the comments on literacy data by David GAGAN, "Enumerator's Instructions for the Census of Canada, 1852 and 1861," *Ibid.*, p. 357.

forms. With the urban census they point to ambiguities in the relationship between self-attested literacy or illiteracy and the pattern of marks and signatures of the heads of households. With the rural census they offer some evidence that self-declared literate men did not sign wills and deeds in one Ontario county, suggesting to them that there was a "substantial degree" of under-enumeration in the countryside.[5] Noting that enumerators were provided with no instructions for the interpretation of columns 25 and 26, they conclude that the literacy columns were not completed "with care" and that the results are suspect. In fact, examination of the enumerators' instructions shows that satisfactory commentary was provided for very few of the columns.[6] Their discovery of ambiguities and irregularities, however, leads them to reject the census as a source for the systematic study of literacy in the Canadas and to consider it at best only a supplement to signatory documents. "The preponderance of evidence does suggest, however," they argue, "that there may be great risks involved in treating illiteracy as a clearly defined phenomenon whose symptoms, causes and effects can be delineated best using the 1861 manuscript census data."[7] They are correct in pointing to ambiguities in the relationship of signatures to reports of literacy or illiteracy particularly with regard to the urban census. Nevertheless, their conclusion is not justified with regard to the use of the signature as a check on the census and to their understanding of the meaning of the census measure. Moreover, their endorsement of "literary" sources is wholly uncritical; they appear to be unaware of the complications involved with the use of signatory documents.

It is their criticism of the urban census which concerns us directly here. Essentially the census is a record of the responses of individuals to a series of questions concerning their personal status, be it religious, occupational, familial, demographic, or educational. Though it is not uncommon to question the validity of self-reported data for which there are no ready checks, research on literacy in widely different places has in fact discovered high levels of accuracy. In one such examination, in the Philippines, a usual census question about literacy was put to 2,700 adults; their claims recorded. At a later stage in the interview, a "functional literacy test" was given to those who claimed to be able to read (63.8%). Of these individuals, over 80 per cent were considered after testing to be literate, as defined by having some measure of comprehension; the majority of those passing the test performing above the minimum

[5] Throughout their report Mays and Manzl refer to the need to form estimates of under-enumeration, yet they make no effort to provide guidelines nor do they consider the representativeness of the sources with which they attempt to check the census. Hence their statements do not go beyond phrases such as "substantial underenumeration." In fact, after attempting to check the validity of the census, they conclude that at present, "its real worth cannot be truly evaluated." To criticize one source by comparing it selectively with another without addressing the advantages and limitations of the second source is of little benefit to the interested reader or researcher.

[6] See GAGAN, *op. cit.*, p. 355-365.

[7] MAYS and MANZL, *op. cit.*, p. 339. Their choice of words in this sentence indicates, I think, that they have not attempted to grapple with the meaning of literacy.

reading levels.[8] Others who did not comprehend presumably could read only orally, a level of imperfect literacy not common only to contemporary studies. Another study (of peasants in Columbia) discovered even higher levels of accuracy in self-reported claims. Some 88 per cent of individuals given a test performed as they had promised. Fully 90 per cent of those claiming literacy ability could read and 87 per cent of those who considered themselves illiterate could not read at all.[9] It is important as well that the larger discrepancy involved self-defined illiterate adults who could in fact read somewhat but considered themselves to be illiterate. A final example comes from East Pakistan (now Bangledesh). There, researchers found almost 94 per cent accuracy among men who considered themselves to be literate, as only one of each fifteen in a combined sample of rural cultivators and urban factory workers who claimed the ability to read was completely unable to read.[10] In a larger study involving cross-national comparisons, the same authors found that between 94 and 100 per cent of those who claimed they could read were in fact able to do so.[11] Apparently there is some overestimation of reading ability with self-reports but the level of exaggeration is hardly significant. All three studies provide support for Rogers and Herzog's contention that "the close congruity of these two measures of literacy (functional and self-defined) provides some evidence that the census-type of literacy measure (self-defined) may be fairly accurate..."[12] Evidence from a minimum of 80 per cent accuracy (for the severest test) to well over 90 per cent indicates that census reports of literacy are sufficiently accurate to merit their use. Significantly, in each case, it was the ability to read and not to write or sign one's name that was questioned and examined.

Any census, and particularly that of 1861 with which we are directly concerned, requires a conscious action of an individual in responding to any inquiry, whether the question addresses the ability to read or write or one's occupation or religion. To signify literacy in 1861 required leaving a column blank or empty, a statement as firm as the completion of any other category of information. Rather than the researcher arguing from silence, as Mays and Manzl conclude, the indication of either literacy or illiteracy may be interpreted as one of conscious intent; that is, one's report on his her own literacy ability. The individual creates a historical record of his or her literacy status whether the action involved having the pertinent column left blank or having it ticked. To assume that without corroborating evidence this information is totally unreliable leads to a reductionist position, casting doubt on virtually all other information the census collected. Not only is such evidence impossible to secure, its

[8] John E. DEYOUNG and Chester L. HUNT, "Communication Channels and Functional Literacy in the Philippine Barrio," *Journal of Asian Studies*, 22 (1962), pp. 69-70.

[9] Everett M. ROGERS and William HERZOG, "Functional Literacy among Columbian Peasants," *Economic Development and Cultural Change*, 14 (1966), p. 194.

[10] Alex INKELES et al, "Some Social Phychological Effects and Noneffects of Literacy in a New Nation," *ibid.*, 16 (1967), p. 2.

[11] INKELES and David H. SMITH, *Becoming Modern* (Cambridge, Mass.: 1974), p. 254.

[12] ROGER and HERZOG, *op. cit.*, p. 194.

necessity is largely unwarranted as well. The existence of ambiguities in no way proves the contention that columns 25 and 26 were "default columns" or that the admission of literacy is not in fact a statement of intent.

Census information on literacy as self-reported data differs from other historical measures of literacy which commonly involve signatures. In one sense, the urban schedules could permit comparison between the action of the head of household in attesting to his or her own literacy status and the ability to sign. In some cases, the comparison may be valid. In others a check is impossible, as so-called irregularities do exist in the relationship between self-attested literacy or illiteracy and the signing of the schedule. This should lead not to a rejection of the source's validity as Mays and Manzl have done, but instead to the understanding of the measure's meaning and a consistent interpretation of the responses. It requires as well a critical examination of the problems associated with signatures and the relationship between them and self-reported status. This recognition in addition to the logic of the irregularities and the resulting social distribution of literacy reveals that the census evidence may be fruitfully employed and that a check with marks and signatures should not in all ways be expected to be consistent with self-reports. This expectation results from a misunderstanding of the census as a measure of literacy.

The irregularities in the relationship between self-attested illiteracy and marks for heads of households are in fact more complex than my initial sampling for concurrence revealed.[13] However, the resulting patterns may be interpreted as consistent with the validity of the measure. The direct check on illiteracy for heads of household through their marks on the schedules is in fact more broadly based than Mays and Manzl's examination of three wards in Hamilton would suggest. In those wards they found that 25 per cent of illiterate heads made a mark. In all of Hamilton, however, 134 heads of household (or nearly 40 per cent) who admitted illiteracy made their mark, in Kingston 107 (or over 70 per cent) and in London 90 (or 60 per cent) left a mark. With these individuals, then, we have a direct check on their illiteracy, and they constitute overall a majority of illiterate household heads. This proof of their illiteracy may be compared with the evidence of illiteracy derived from other signatory sources.

For other heads of household no such direct check is available. Nonetheless this does not contradict the evidence of self-reporting. Indeed to demand a systematic check on the admission of illiteracy is to confuse two unique measures of literacy which are related imperfectly. All students of literacy from signatory documents including Schofield and Lockridge have discussed the difficulties involved in estimating the numbers of potential readers from the ranks of the signers and the markers. Generally it has been agreed that the ability to sign lies somewhere between the ability to read and the ability to write and that

[13] "Towards a Meaning of Literacy: Literacy and Social Structure in Hamilton, Ontario, 1861," *History of Education Quarterly*, 12 (1972), esp. p. 418.

some degree of fluency in reading (which does not mean comprehension) may correspond to signing. Therefore an unestimated number of non-signers could well be able to read and their testaments of literacy may be trusted. Many markers could be readers (Schofield estimated the need to inflate the numbers of signers by fifty per cent) and a mark without admission of illiteracy provides no evidence of an inability to read.[14] Or, as Lockridge states, "the difficulty is that a large proportion of persons making marks may have been able to read quite fluently, which means that absolute levels of reading could have been much higher than signatures would indicate."[15] Signatures may indicate the ability to read and perhaps some ability to write, but non-signers can not immediately be classed as non-readers. In fact, in Sweden literacy was transmitted overwhelmingly in the ability of reading and not in that of writing, resulting in a bifurcation in the historical trend of the spread of these two elements of literacy. Attention only to signatures in such a society would seriously distort the distribution of literacy.

Conceivably one of the virtues of the census may be its employment to discriminate between readers and non-readers among markers, some of whom were literate and some of whom were not. Such differentiation seems implicit in a definition constructed as "cannot read or write." This question pertains most specifically to a minimum level of literacy and is one not directly comparable to the level signified by a signature. Those who were able to read could not necessarily write or sign but they still met the test of literacy required by the census question. It merely meant that another person would have to physically complete the schedule for them, and in many cases the enumerator or another member of their household did sign for them. Literate and illiterate heads in such cases are distinguished by their self-reported status as indicated by the response in the appropriate column of the schedule rather than by a signatory test. Into this category fall those schedules of illiterate and literate heads who were signed by another person and who had made no mark themselves, as well as those of literate markers.[16]

Another category of schedules included unsigned ones. Interestingly, there were far more of these in Hamilton than in Kingston and London.

[14] SCHOFIELD, *op. cit.*, esp. pp. 323-325; LOCKRIDGE, *op. cit.*, Appendix B, esp. pp. 109-112.

[15] LOCKRIDGE, *op. cit.*, pp. 109-110. He continues: "Worse, it is possible that in one society a basic education which was confined to reading, or a practice of leaving school before writing was taught, could have resulted in a very high proportion of readers among the markers, while in another society essentially no markers could read because all readers had received instruction in writing early in their studies and so could sign their names. The result would be two societies, or social classes, or eras, which had identical levels of signatures yet had substantially different levels of reading. Conversely societies or classes or eras with differing signature rates could have had rather similar reading levels. Similarly deceptive comparisons could arise from a less likely and essentially opposite flaw, namely a substantial and varying proportion of illiterates who learned to sign their names. Either of these flaws would invalidate signatures not only as an absolute but also as a comparative measure of literacy."

[16] See MAYS and MANZL, *op. cit.*, p. 338, Tables II and III, for their tabulations of apparent irregularites.

In fact, in the latter two cities these cases are so few that they may be ignored (3 and 1 respectively). In Hamilton, however, over two hundred schedules (of 3,500) were left unmarked or unsigned. Slightly fewer than one half of them were the manuscript reports of self-attested illiterates.

In fact, in Hamilton as in the other cities, unsigned schedules of both literates and illiterates were geographically clustered. For example, as Mays and Manzl's Table I indicates, 95 or nearly one-half of all unsigned schedules came from St. Patrick's Ward. Presumably some few enumerators did not examine the forms to insure that they had been signed. Indeed it is not uncommon today for individuals to neglect to sign forms, applications, or cheques. Thus, it would appear as in the previous case that a testament of illiteracy forms a way to differentiate between unsigned schedules. The lack of any signature does not invalidate the measure nor is there any evidence to suggest that those who reported literacy were in fact illiterate. Conversely the lack of a mark does not negate the admission of illiteracy. It is unfortunate but hardly debilitating that some schedules were unsigned and that marks did not always accompany the signature of another individual. Nevertheless there is simply no evidence that these reports may not be trusted.

A final category of schedules included illiterate household heads whose schedules has a signature affixed to them. Superficially it might appear that these individuals were in fact literate if the ability to sign is equated with literacy. Nevertheless I would argue that their admission of illiteracy carries greater weight than the signature. First, it is impossible to know if they did in fact sign their own names or if another person signed for them. Many signatures are quite similar in appearance and the signatures of some individuals do not always correspond with the penmanship of the manuscript responses. Moreover in some few cases the ability to sign need not represent the ability to read and write. In sum, the admission of illiteracy once more distinguishes these individuals from other signers who indicated their own literacy. Though social stigma represented little barrier to the admission of illiteracy, surely literate men and women would not consider themselves illiterate? The admission of illiteracy that these schedules carry provides a direct test of the individuals' opinion of their literacy abilities.

Apparent ambiguities and irregularities in the relationship of self-reported status to signatures may be explained when one is aware of the meaning of the census and of the problems associated with a measure such as the signature. These consideration meet all the irregularities listed by Mays and Manzl. Their evidence points to inattention on the part of enumerators and others who completed the schedules with regard to the signing of the manuscripts of a small number of households and does not prove inaccuracy, unreliability, or invalidity. Thus their tabulations may be consulted again. Table III provides no proof of a status other than literacy, Table II of none except illiteracy, and 84 per cent of illiterate heads' schedules did not even possess the ambiguity of someone's signature. Their anecdotal evidence is of course similarly interpreted (although I wonder where St. Edward's Ward is — it was not in Hamilton).

Perhaps the basic point to understand is that self-reporting, which seems to be very accurate, is not directly equatable with the status measured by a signature, and the signature or mark in itself does not qualify as a check on self-reported abilities of reading. The standard of comparison is one's own evaluation of his or her literacy skills. Signatures, on the other hand, provide a measure of comparison from person to person only of the ability to sign; they require assumptions about what that ability may mean or represent. They provide a direct test, but they tell us little about personal ability to read which varies widely, and we can only assume that some fluency in reading accompanied signatory ability. Some readers, whose abilities would be recorded in the census, are lost through the use of this measure.

Similarly Mays and Manzl's rural evidence that some markers were listed as literate in the census does not alone prove that any or all of them were unable to read. Apparently they have not controlled for age, occupation, wealth, or ethnicity, which might aid in interpretation. The rural style of enumeration was much more susceptible to under-enumeration and under-estimation of illiterates. It is important to discover to what extent this occurred, and here Mays and Manzl are no help; their sources are selective and limited. Of recorded illiterates, of course, we may be certain.[17] Unfortunately there are insufficient signatory documents to systematically compare self-reports of literacy with signatures on wills, deeds, and other records. Nevertheless even were such cross-checking possible, the results would ultimately remain ambiguous as to reading ability.

The conclusion of Mays and Manzl might lead one to think that admission of illiteracy was a rather random and suspect affair, particularly in light of the irregularities involved in their attempts to corroborate self-reports with signatures. Of course they did not attempt to interpret these irregularities; instead they leaped to a conclusion that colums 25 and 26 were at best "default" options, that the historians using them "flirts with the danger of using an argument from silence." Unfortunately, they are confused, for any such question requires a conscious intent to respond yes or no, even if a blank represented a negative response to the status of illiteracy. A response in the negative was an admission of literacy and corroboration by signature while perhaps useful for comparative purposes provides no real guarantee against illiteracy. Undoubtedly there was some underestimation of illiteracy in this as in any other census, but there remain no obstructions to the census general validity and reliability in the study of literacy in the mid-nineteenth-century city. In some ways it seems more important to know if an individual considered him or herself and those with whom he resided able to read, to possess utilizable literacy, than if he or she could sign *their names*. The measure of literacy, thus, has an important evaluative and practical aspect, and it relates directly to the ability to use literacy in daily life and work in nineteenth-

[17] See my "Literacy and Social Structure in Elgin County, Canada West, 1861," *Histoire sociale — Social History*, 6 (April 1973), p. 29.

century places. Ultimately unless other sources are found and other methods of viable comparison are devised, each measure of literacy will remain somewhat unique, having some limitations and of course requiring interpretation. Comparisons will remain ambiguous and fraught with danger if conducted without caution.

The results of the tabulations of individual illiterates provide strong additional evidence that the admission of illiteracy was very far from random. Not only were literacy rates quite similar among the four cities of Upper Canada, the rates varied by age, sex, ethnicity, and occupation, as well as wealth in a manner which familiarity with the historical background would predict and which the researcher of literacy should properly expect. The literacy rates of the four cities of Ontario were virtually the same: from 90 to 93 per cent of the adults residents in Hamilton, Kingston, London, and Toronto were literate. Moreover, the rural counties of the province, even with a less reliable enumeration procedure, had patterns of literacy in 1861 quite consistent with their histories of settlement and geographical location. Long-settled, properous counties of mixed Anglo-North American population throughout the southern part of the province had high and similar rates of adult literacy. Those in eastern and northern areas with either or both differing settlement and immigration patterns and poorer agricultural conditions had lower rates of literacy, often substantially lower. The consistency and logic of these results do not, of course, prove the precise accuracy of the census record, but they do confirm that self-reported illiteracy and literacy in Upper Canada did not form random patterns, solely the result of improper enumeration, internal errors, or the inattention of some enumerators.

Even more striking is the evidence of internal distribution of literacy and illiteracy in the cities analyzed. Once more the results are logically consistent as the proportion illiterate in Hamilton, for example, varied directly with occupational status, age, and total valuated wealth. Similarly females had a rate of illiteracy greater than males. Ethnically the distribution of illiterates varied as well. Irish Catholics and non-whites had greater proportions of illiterates among their adults than did any other group; Irish Protestants followed. Not surprisingly, Scottish Presbyterians were the most literate of ethnic aggregations with English and Canadian Protestants trailing them by several percentage points. I have explored the full meaning of these patterns elsewhere; they are outlined here merely to demonstrate that the educational survey of the Canadian peoples in 1861 was hardly an irregular or random affair. If it had been not more than irregular, there could be no expectation of such logical results; and their presence lends support to the census's credibility and validity.

Problems are present in the use of signatory documents alone. Deeds and wills provide the researcher with an unrepresentative sample of the adult population, especially during the nineteenth century, as population growth and urbanization made more and more poor and landless. Moreover, very few women are included in either source, and both are biased in the direction of increasing wealth, probably in ethnicity and occupation as well. An analysis of under-registration and bias in probate re-

cords for eighteenth-century Massachussetts, for example, shows that only 36 per cent of men and six per cent of women left wills, with fewer leaving them as that century progressed and as inequality advanced. More importantly, perhaps, he also discovered that two-thirds of the wealthiest forty per cent of the population left a will, but that only eight per cent of the poorest one-fifth did.[18] Wills of course are also biased in terms of old age which appears to significantly lower the signature rate by a thus far unestimated margin. The data was in some cases transcribed by clerks or copyists into official ledgers; this was done in Sweden and in Upper Canada. It is difficult to know how transcription affects the resulting proportion of signatures and marks. Neither source provides the sheer amount of direct information that the 1861 census does, though in some cases they include additional information which could be linked to the census with advantage, even though a small proportion of the population would in all probability be found. Regardless neither source is as broadly representative as either the census, the English marriage registers, or the Swedish catechetical examination records — none of which, alas, provides directly comparable measures at the present early stage of research into literacy. Even the marriage registers measure the ability to sign of only those legally marrying, perhaps eighty per cent of the population.[19] In sum, scholars are presently studying literacy from a group of sources each of which presents a somewhat unique measure, each of which is indirectly related. Of these the census is one. Fortuitously the census goes well beyond the coverage of any other source available to Canadian researchers by recording the literacy of all adult residents.

In some respects the census data on literacy also meets the stringent requirements that Roger Schofield has established for literacy sources, which of course support the use of the signature.[20] Though not specifically "standard as a measure from one historical period to the next" or over a long period of time (at least not until more recent census manuscripts are released), the data do serve as a "standard as a measure from one person to the next, from one group to the next..." They also permit the study of regional variations as the census is "applicable throughout the country to people of a wide ranges of ages and economic and social conditions." The census (specifically the 1861 urban schedules) seems to satisfy Schofield's criteria. Only in the chronological span of their present availability do they fall short. Nevertheless, the census identifies individuals as literate or illiterate at different stages of their lives; its data may be cross-sectionally analyzed to provide a dynamic to the exploration. The same individual of course may be identified on other sources, so lives may be longitudinally considered as well.

[18] SMITH, "Underregistration and Bias in Probate Records," *William and Mary Quarterly* (1975), pp. 100-110.

[19] On these points, see LOCKRIDGE, *op. cit.*, pp. 112-114, and D.A. Cressy, "Literacy and Education in London and East Anglia, 1580-1700," (unpublished Ph.D. thesis, Cambridge University, 1972), esp. p. 310: "There is evidence to suggest that advancing years had a deleterious effect on the ability to sign one's name."

[20] SCHOFIELD, *op. cit.*, pp. 318-319.

Schofield urges additionally that a measure of literacy should "therefore not only be universal and standard, it also should be direct." The ability to sign one's name, he concludes, represents one test of literacy skills which satisfies the three requirements that he has established. Only in the case of about one-half of the illiterate heads of household and not quite all the literate ones does the census measure meet his direct test of signature. But the process of framing a response, of self-reporting, to the literacy inquiry of the census constitutes another form of a test. Each head of household was required to evaluate his or her literacy skills and those of other members of the household in oder to complete the schedule or to give an answer to the enumerator or another person who completed the manuscript for the illiterate head. One had to affirm either the ability or the inability to read or write. The response to the question represented a form of direct test, however different from a written signature. To repeat, only in some cases is a census report of literacy directly comparable to that range of literacy which a signature represents.

In sum, census reports of literacy and illiteracy from the 1861 manuscripts provide a valid measure to the researcher. They share with all indices of literacy some advantages along with disadvantages, and with all such measures their meaning and utility must be interpreted and understood before the data is systematically employed. In representation and coverage, census data is far more broadly based than any other measure available to Canadian historians of the mid-nineteenth century. Not only is information on household heads given but the same data is presented for other residents, who in fact outnumber heads among the illiterate by a ratio of about three to one. The only alternatives, wills and deeds, provide biased sub-samples with far fewer relevant variables for analysis. Indeed even the proponents of these "literary" sources remain uncertain of their representativeness and wider utility for the nineteenth century. The efforts of researchers like Mays and Manzl could have been perhaps more profitably served in the analysis of rural literacy from signatory documents to discover what they might reveal about pertinent questions and find just who is included. Yet they tell us nothing about the characteristics of the individuals they counted, nor do they tell us what proportion of those who left wills and deeds could be located in the census, or, conversely, how many in the census could be found in other records. Ideally, wills and deeds may be joined to the census, and other sources, to develop a more complete profile of the literate and illiterate and to perhaps distinguish the readers among the markers. However, their measure of literacy is basically different from that examined by the census; they do not provide an accurate check. Other sources such as gaol registers provide an even more biased sample. We must be aware therefore, of the uniqueness of each measure and the problems of comparability. For the present, however, the place for urban researchers to commence their studies of literacy is undoubtedly the census.