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# The Education Premium in Canada and the United States 

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# The Education Premium in Canada and the United States 


#### Abstract

It is well known that in the United States the education premium - the ratio of the earnings of university graduates to the earnings of high school graduates - has risen sharply in the last twenty years. Some Canadian economists and policy makers presume the same fact holds in Canada. Since so much of modern growth theory and micro and macroeconomic policy turns on the education premium it is important for social scientists and policy makers to know what has actually happened to the education premium. This paper argues that on the basis of available evidence over the last twenty years the premium has been constant or has fallen in Canada.


# The Education Premium in Canada and the United States 

## 1. Introduction

It is very well known that in the United States the education premium - the ratio of the earnings of university graduates to the earnings of high school graduates - has risen sharply in the last twenty years. This fact has been so well-publicized that some prominent Canadian economists simply presume the same fact holds in Canada and even labour economists are perhaps not as clear as they might be about the extent of inter-country difference in this aspect of wage structure. ${ }^{1}$ Since so much of modern growth theory and micro and macroeconomic policy turns on the education premium it is important for social scientists and policy makers to know what has actually happened to the education premium. This short paper argues that on the basis of available evidence over the last twenty years the premium has indeed risen sharply in the United States but it has been constant or has fallen in Canada.

We begin by looking at data drawn from the U.S. March Current Population Survey, 1981-1999, to show the reader what the fuss is all about. We then turn to an examination of "comparable" data for Canada. Part of this paper is absorbed with the issue of finding comparable Canadian data. Most would agree that the Canadian Survey of Consumer Finances provided data much like the U.S. CPS prior to 1998 - the last SCF was for the calendar year 1997. Currently it is unclear whether the most consistent time series is obtained by using SLID - the Survey of Labour Income Dynamics - or LFS - the Labour Force Survey - to extend the SCF-based earnings data beyond 1997. SLID is currently available for calendar years 1993 to 1998 and LFS earnings data is available for 1997-2000 so there is only one year - 1997-when all three data sets overlap. We employ both SLID and LFS data to document what has happened to the education premium in Canada. ${ }^{2}$

## 2. The Education Premium in the U.S.

We focus on the real weekly earnings of women and men, aged 25 to 64, who work "fulltime," (that is, they typically work thirty or more hours per week), who are not self-employed and for whom the major source of income is wages and salaries. The "education premium", sometimes

[^0]referred to as the "skill premium", is most often measured by the ratio of mean or median earnings of university graduates to the earnings of high school graduates. For reasons that will become clear shortly we break our samples into six educational groups - elementary (EL), some high school (HS1), completed high school (HS2), some post-secondary (PS1), post-secondary certificate or diploma (PS2) and university degree (baccalaureate, or higher, UN). Since the education question differs across surveys, or may change over time for a given survey, and the UN category appears to be the one measured most consistently across surveys and over time, we have found it helpful to work with another measure of the education premium. This is the ratio of the earnings of university graduates, UN, to the earnings of everyone else, NONUN.

Table 1, which is based on the U.S. CPS, lists real median weekly earnings for the seven education groups for the period 1981 to 1999. ${ }^{3}$ For males, the median for completed high school (HS2) lies above the non-university (NONUN) median early in the data period but since the mid1980s the two data series are quite close, and trend downwards by about 12 percent. ${ }^{4}$ For females, HS2 and NONUN are close at the beginning of the data period while HS2 lies a bit below NONUN after 1990. Over the entire data period the two series trend upwards by an average of 13 percent. The medians for university trend sharply upwards. Between 1981 and 1999 male real earnings rose over 20 percent and female real earnings rose by 33 percent.

It is clear then that in the U.S., over our data period, real earnings decline more quickly or rise more slowly for lower education levels. Since there has been a marked increase in average years of education over the data period it is possible that the slow or negative growth in the real earnings of the less educated could be attributed to a shift over time across education groups. So, for example, in 1981, 9 percent of males had only an elementary education and 11 percent had some high school but had not completed high school. By 1999 these numbers had dropped to 4 and 8 percent. For females, the corresponding numbers are $(6,10)$ to $(3,6)$. If it were true that those in the lower education groups were drawn from successively lower sections of the ability distribution, over time median real earnings might fall for these groups. For our data period, however, the percentage with a university degree rose only slightly for males ( 25 to 28 percent). For females, it oscillated between 20 and 25 percent. By concentrating on the university-nonuniversity classification not only can we cope more easily with different data sets, as noted above, but we hope we are also less exposed to the criticism that changes in earnings ratios are driven largely by the changing composition of our sample. ${ }^{5}$ The last two columns of Table 1 show university earnings rat ios measured two ways - relative to high school completed (UN/HS2) and

[^1]relative to non- university (UN/NONUN). Although the two series vary somewhat year to year the trends in them over our data period are very similar for both sexes.

Accordingly, the CPS-lines in Figures 1a and 1 b graph the ratio of median earnings for university graduates relative to median earnings for non-university, that is, the last column of Table 1. For U.S. females the earnings ratio rises from 1.5 in 1981 to nearly 1.8 in 1998. For males, the end point is about the same but the ratio starts lower in 1981 at 1.3. It is clear then that in the U.S., for both sexes, the education premium has risen sharply. Does the earnings structure in Canada resemble the U.S. in this respect?

## 3. Using the SCF to Study the Education Premium in Canada

Statistics Canada's Survey of Consumer Finances was very similar in structure and content to the U.S. Current Population Survey. Between 1981 and 1997, with the exception of 1983, the SCF produced annually public use files on individuals' incomes and characteristics. While many of the questions differed between the SCF and CPS it is possible to extract Canadian samples much like the U.S. data sets analysed above.

Tables 2 a and 2 b are the Canadian counterparts of Table 1. Figures 1 a and 1 b graph time series earnings ratios for both countries. For Canadian males, real earnings fall for all education groups and, at roughly the same rate. For Canadian females, UN is remarkable stable and NONUN rises by about 10 percent. It is not surprising, therefore, that the university-education premia shown in the last two columns of these tables do not exhibit an upward trend over the 1981-1997 period; indeed, UN/NONUN trends downward for females.

In an important sense the paper could end here. On the basis of these two surveys - the CPS for the U.S. and the SCF for Canada - the education premium has increased markedly in the U.S. but has been very stable or perhaps even declined slightly in Canada. As time goes by, however, the gap bet ween the termination of the SCF (1997) and the latest CPS data (currently 1999) will grow. Therefore, it seems, to us at least, important to try to extend the Canadian data beyond 1997, the last year of SCF data. Is this possible?

## 4. Extending the SCF - SLID and LFS

Longitudinal data sets are rare in Canada. In the late 1980s and early 1990s Canadian researchers clamoured for a longitudinal data set like the Panel Study on Income Dynamics (PSID) in the U.S. In response Statistics Canada introduced the Survey of Labour Income Dynamics. A group of individuals and families were interviewed for the first time in 1994 about their incomes in 1993 and they were followed for another five years. The people they married were introduced into the panel and as some members of the panel attrited new people were added to the cross-sections. Thus some of the people in SLID data sets are members of a panel and
others are not. While some of the questions asked in SLID are quite different from tho se in the SCF, SLID is the survey that was and is still intended as a replacement for (improvement over) the SCF. The wage and salary information in the SCF should be the same as that in SLID. Both surveys asked people to report wages and salaries from all jobs including any tips or gratuities or overtime. SLID has been conducted every year since 1994 and earnings data are currently available for calendar years 1993-1998. A second wave started by reporting 1996 incomes and components so currently we have access to complete information on the first wave and three years of data on the second wave.

It is less well known that the Labour Force Survey began collecting earnings information in January 1997. LFS earnings questions are designed to minimize non-respo nse by allowing respondents to report earnings at the time of the survey in a way that is easiest for them. Those paid by the hour are asked to report an hourly wage rate that includes tips, commissions and bonuses. Unfortunately, neither the questionnaire nor the guidelines produced by Statistics Canada mention overtime earnings. The later questions on hours worked distinguish actual hours worked from usual hours and overtime hours. Those not paid by the hour can report the ir earnings weekly, bi-weekly, semi-monthly, monthly or yearly. From the earnings and hours information collected Statistics Canada calculates an hourly wage rate. Multiplying this wage rate by usual hours worked per week one can obtain an estimate of weekly earnings. For salaried employees this should be close to SCF or SLID estimates of weekly earnings. For those paid by the hour LFS may lie below SCF and SLID because overtime earnings may not be included. In addition, LFS earnings estimates ignore earnings from secondary jobs whereas SCF and SLID asked respondents to report all earnings. LFS earnings questions are asked at the first interview and then updated in subsequent interviews only if the person changed jobs.

Unlike SCF and SLID, the LFS does not ask questions about weeks worked in the previous calendar year so one cannot obtain annual earnings from the LFS. But by using reported weeks worked in the SCF and the SLID one can produce estimates of weekly earnings for all three data sets. We feel these estimates of weekly earnings offer the best chance at a relatively consistent time series of earnings, 1981 to date.

It is, of course, important not only to achieve consistency in earnings but also in education categories. In earlier work we have discussed this issue at length with regard to the SCF (see BarOr et al. (1995), Burbidge, Magee and Robb (1997)). The SCF education question changed in 1988 and it is well known that it is impossible to arrange education categories so that there is no break in the time series for these two years. Tables 3 a and 3 b illustrate this point; we see bigger changes 1988-1989 than in any other pair of years. We are indebted to Jean Fares of the Bank of Canada for pointing out to us that it is possible to set up the six education categories we have in this paper to achieve comparability between the SCF and the LFS. To do this one uses the summary education question in the SCF to create EL, HS1, HS2, PS1, PS2 and UN, and the education question in the LFS maps naturally into these six categories. Inspection of Tables 3a and 3 b show that for the one overlap year we have - 1997-the percentages are very close. One
might be tempted then to guess that the SCF time series of earnings by education could be accurately extended by using the LFS. But Tables $2 a$ and $2 b$, which report median weekly earnings by education, for the SCF, SLID and the LFS raise some doubt. Given our earlier discussion it is not surprising to see that LFS median earnings tend to be lower than SCF or SLID estimates, particularly for males. Still, earnings ratios may be measured consistently across the three data sets. Inspection of the three Canadian data series in Figures 1 a and 1 b offer some support for this view. The only outliers are the first three years of SLID data for females. Interestingly, this anomaly would disappears if were to graph UN/HS2 rather than UN/NONUN (see Table 2b).

Thus, from the point of view of the focus of this paper - the behaviour of education premium in the U.S. and Canada - it probably does not matter whether one uses the LFS or SLID to extend the SCF. ${ }^{6}$ For males, the Canadian education premium has recently been at or near 1.40, 0.37 below the 1999 number for the U.S. ${ }^{7}$ For females, the education premium has trended downwards from about 1.65 to 1.50 . By contrast, the U.S. premium starts at 1.50 in 1981, crosses the Canadian line in the mid-eighties and rises to about 1.75 in 1999.

## 5. Conclusions

The Canadian and U.S. economies are similar in many ways but the behaviour of the real earnings of university graduates relative to the real earnings of other educational gro ups is completely different. Further research is needed to better understand why the behaviour of relative earnings across education groups is so different. But however our understanding is advanced by this research it is quite possible that economic models and policies that are appropriate for the U.S. may be quite inappropriate for Canada.

[^2]
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Table 1: Median Weekly Earnings by Education (1997 dollars):
U.S. Males and Females, Aged 25-64; CPS

| Year | EL | HS1 | HS2 | PS1 | PS2 | UN <br> Number 1981~100 |  | NONUN <br> Number $1981 \sim 100$ |  | Earnings Ratios X 100 <br> UN/HS2 UN/NONUN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | MALES |  |  |  |  |  |
| 1981 | 427 | 529 | 641 | 678 | 678 | 814 | 100 | 611 | 100 | 127 | 133 |
| 1982 | 448 | 528 | 640 | 688 | 672 | 832 | 102 | 608 | 100 | 130 | 137 |
| 1983 | 425 | 526 | 631 | 681 | 697 | 852 | 105 | 619 | 101 | 135 | 138 |
| 1984 | 429 | 505 | 618 | 684 | 698 | 889 | 109 | 594 | 97 | 144 | 150 |
| 1985 | 431 | 507 | 631 | 703 | 713 | 890 | 109 | 603 | 99 | 141 | 148 |
| 1986 | 422 | 497 | 634 | 704 | 704 | 929 | 114 | 619 | 101 | 147 | 150 |
| 1987 | 415 | 508 | 625 | 725 | 706 | 951 | 117 | 621 | 102 | 152 | 153 |
| 1988 | 405 | 509 | 626 | 708 | 731 | 923 | 113 | 600 | 98 | 147 | 154 |
| 1989 | 399 | 473 | 623 | 697 | 722 | 934 | 115 | 598 | 98 | 150 | 156 |
| 1990 | 396 | 449 | 591 | 709 | 709 | 945 | 116 | 579 | 95 | 160 | 163 |
| 1991 | 362 | 442 | 566 | 680 | 680 | 906 | 111 | 566 | 93 | 160 | 160 |
| 1992 | 352 | 429 | 560 | 660 | 704 | 924 | 114 | 550 | 90 | 165 | 168 |
| 1993 | 342 | 427 | 556 | 641 | 684 | 919 | 113 | 556 | 91 | 165 | 165 |
| 1994 | 333 | 417 | 542 | 625 | 667 | 938 | 115 | 542 | 89 | 173 | 173 |
| 1995 | 351 | 405 | 536 | 611 | 689 | 941 | 116 | 547 | 90 | 176 | 172 |
| 1996 | 341 | 399 | 541 | 614 | 655 | 942 | 116 | 531 | 87 | 174 | 177 |
| 1997 | 318 | 404 | 558 | 615 | 673 | 923 | 113 | 542 | 89 | 165 | 170 |
| 1998 | 341 | 436 | 568 | 644 | 681 | 946 | 116 | 568 | 93 | 167 | 167 |
| 1999 | 333 | 419 | 556 | 648 | 705 | 982 | 121 | 556 | 91 | 177 | 177 |
| Females |  |  |  |  |  |  |  |  |  |  |  |
| 1981 | 252 | 284 | 339 | 387 | 438 | 509 | 100 | 339 | 100 | 150 | 150 |
| 1982 | 259 | 284 | 352 | 400 | 416 | 523 | 103 | 346 | 102 | 149 | 151 |
| 1983 | 258 | 290 | 370 | 409 | 460 | 557 | 109 | 362 | 107 | 151 | 154 |
| 1984 | 268 | 297 | 357 | 431 | 476 | 565 | 111 | 360 | 106 | 158 | 157 |
| 1985 | 260 | 287 | 367 | 431 | 464 | 585 | 115 | 371 | 109 | 159 | 158 |
| 1986 | 269 | 293 | 379 | 440 | 470 | 610 | 120 | 379 | 112 | 161 | 161 |
| 1987 | 255 | 296 | 380 | 435 | 503 | 625 | 123 | 380 | 112 | 164 | 164 |
| 1988 | 251 | 301 | 382 | 448 | 508 | 613 | 120 | 388 | 114 | 160 | 158 |
| 1989 | 249 | 291 | 374 | 461 | 498 | 623 | 122 | 374 | 110 | 167 | 167 |
| 1990 | 253 | 276 | 369 | 449 | 521 | 614 | 121 | 378 | 112 | 166 | 162 |
| 1991 | 236 | 283 | 362 | 453 | 515 | 634 | 125 | 368 | 109 | 175 | 172 |
| 1992 | 229 | 264 | 374 | 440 | 506 | 641 | 126 | 382 | 113 | 171 | 168 |
| 1993 | 235 | 265 | 363 | 449 | 497 | 641 | 126 | 385 | 114 | 177 | 166 |
| 1994 | 238 | 271 | 367 | 447 | 498 | 656 | 129 | 379 | 112 | 179 | 173 |
| 1995 | 237 | 263 | 365 | 426 | 496 | 648 | 127 | 375 | 111 | 178 | 173 |
| 1996 | 246 | 265 | 354 | 423 | 492 | 650 | 128 | 374 | 110 | 184 | 174 |
| 1997 | 236 | 280 | 365 | 423 | 500 | 654 | 128 | 385 | 114 | 179 | 170 |
| 1998 | 227 | 265 | 379 | 435 | 492 | 681 | 134 | 381 | 112 | 180 | 179 |
| 1999 | 241 | 278 | 371 | 463 | 503 | 678 | 133 | 389 | 115 | 183 | 174 |

Table 2a: Median Weekly Earnings by Education (1997 dollars):
Canadian Males Aged 25-64; SCF, SLID and LFS

| Year | EL | HS1 | HS2 | PS1 | PS2 | UN <br> Number 1981~100 |  | NONUN <br> Number 1981~100 |  | Earnings Ratios X 100 <br> UN/HS2 UN/NONUN |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SCF |  |  |  |  |  |  |  |  |  |  |  |
| 1981 | 683 | 738 | 794 | 808 | 856 | 1063 | 100 | 761 | 100 | 134 | 140 |
| 1982 | 665 | 744 | 792 | 793 | 846 | 1057 | 99 | 761 | 100 | 133 | 139 |
| 1983 |  |  |  |  |  |  |  |  |  |  |  |
| 1984 | 689 | 720 | 767 | 816 | 824 | 1047 | 98 | 746 | 98 | 137 | 140 |
| 1985 | 666 | 714 | 783 | 818 | 828 | 1051 | 99 | 756 | 99 | 134 | 139 |
| 1986 | 689 | 715 | 770 | 795 | 837 | 1048 | 99 | 758 | 100 | 136 | 138 |
| 1987 | 686 | 711 | 775 | 809 | 810 | 1016 | 96 | 755 | 99 | 131 | 135 |
| 1988 | 691 | 724 | 757 | 800 | 830 | 1025 | 96 | 756 | 99 | 135 | 136 |
| 1989 | 688 | 698 | 748 | 758 | 789 | 1046 | 98 | 744 | 98 | 140 | 141 |
| 1990 | 676 | 688 | 738 | 776 | 816 | 1019 | 96 | 750 | 99 | 138 | 136 |
| 1991 | 651 | 683 | 722 | 767 | 798 | 1049 | 99 | 735 | 97 | 145 | 143 |
| 1992 | 657 | 690 | 743 | 766 | 810 | 1035 | 97 | 745 | 98 | 139 | 139 |
| 1993 | 659 | 673 | 711 | 721 | 781 | 1017 | 96 | 727 | 96 | 143 | 140 |
| 1994 | 648 | 689 | 717 | 751 | 811 | 1014 | 95 | 748 | 98 | 141 | 136 |
| 1995 | 599 | 684 | 715 | 724 | 774 | 984 | 93 | 721 | 95 | 138 | 136 |
| 1996 | 610 | 661 | 692 | 710 | 781 | 995 | 94 | 723 | 95 | 144 | 138 |
| 1997 | 588 | 673 | 695 | 712 | 769 | 962 | 90 | 729 | 96 | 138 | 132 |
| SLID |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 606 | 668 | 726 | 721 | 790 | 997 | 724 | 724 | 95 | 137 | 138 |
| 1994 | 669 | 641 | 719 | 765 | 801 | 1011 | 745 | 745 | 98 | 141 | 136 |
| 1995 | 618 | 625 | 712 | 743 | 785 | 1002 | 733 | 733 | 96 | 141 | 137 |
| 1996 | 654 | 637 | 710 | 748 | 784 | 988 | 729 | 729 | 96 | 139 | 136 |
| 1997 | 658 | 654 | 706 | 707 | 784 | 1005 | 728 | 728 | 96 | 142 | 138 |
| 1998 | 661 | 656 | 725 | 743 | 793 | 1047 | 747 | 747 | 98 | 144 | 140 |
| LFS |  |  |  |  |  |  |  |  |  |  |  |
| 1997 | 577 | 600 | 672 | 680 | 750 | 961 | 90 | 680 | 89 | 143 | 141 |
| 1998 | 575 | 614 | 669 | 686 | 759 | 949 | 89 | 694 | 91 | 142 | 137 |
| 1999 | 565 | 592 | 662 | 701 | 749 | 936 | 88 | 687 | 90 | 141 | 136 |
| 2000 | 572 | 610 | 685 | 687 | 752 | 954 | 90 | 693 | 91 | 139 | 138 |

Table 2b: Median Weekly Earnings by Education (1997 dollars) Canadian Females Aged 25-64; SCF, SLID and LFS

| Year | EL | HS1 | HS2 | PS1 | PS2 | UN |  | NONUN |  | Earnings Ratios X 100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Number | 1981~100 | Number | 1981~100 | UN/HS2 | UN/NONUN |
| SCF |  |  |  |  |  |  |  |  |  |  |  |
| 1981 | 366 | 429 | 492 | 524 | 561 | 776 | 100 | 471 | 100 | 158 | 165 |
| 1982 | 380 | 427 | 482 | 515 | 551 | 786 | 101 | 469 | 100 | 163 | 168 |
| 1983 |  |  |  |  |  |  |  |  |  |  |  |
| 1984 | 366 | 430 | 488 | 511 | 574 | 775 | 100 | 472 | 100 | 159 | 164 |
| 1985 | 363 | 414 | 481 | 513 | 552 | 773 | 100 | 469 | 100 | 161 | 165 |
| 1986 | 371 | 418 | 494 | 530 | 554 | 768 | 99 | 482 | 102 | 155 | 159 |
| 1987 | 364 | 418 | 493 | 508 | 558 | 762 | 98 | 481 | 102 | 155 | 158 |
| 1988 | 387 | 416 | 480 | 508 | 546 | 768 | 99 | 474 | 101 | 160 | 162 |
| 1989 | 350 | 418 | 488 | 476 | 535 | 796 | 103 | 475 | 101 | 163 | 168 |
| 1990 | 409 | 403 | 493 | 508 | 554 | 776 | 100 | 490 | 104 | 157 | 158 |
| 1991 | 357 | 420 | 497 | 522 | 546 | 807 | 104 | 501 | 106 | 162 | 161 |
| 1992 | 376 | 430 | 517 | 517 | 563 | 828 | 107 | 517 | 110 | 160 | 160 |
| 1993 | 407 | 418 | 496 | 508 | 549 | 793 | 102 | 499 | 106 | 160 | 159 |
| 1994 | 368 | 406 | 507 | 533 | 550 | 802 | 103 | 507 | 108 | 158 | 158 |
| 1995 | 379 | 431 | 497 | 516 | 549 | 794 | 102 | 506 | 107 | 160 | 157 |
| 1996 | 404 | 430 | 508 | 511 | 547 | 782 | 101 | 508 | 108 | 154 | 154 |
| 1997 | 384 | 432 | 504 | 558 | 556 | 788 | 102 | 519 | 110 | 156 | 152 |
| SLID |  |  |  |  |  |  |  |  |  |  |  |
| 1993 | 339 | 459 | 524 | 555 | 565 | 802 | 532 | 532 | 113 | 153 | 151 |
| 1994 | 358 | 448 | 498 | 547 | 577 | 771 | 533 | 533 | 113 | 155 | 145 |
| 1995 | 366 | 428 | 504 | 539 | 585 | 764 | 539 | 539 | 114 | 152 | 142 |
| 1996 | 363 | 410 | 498 | 531 | 556 | 793 | 518 | 518 | 110 | 159 | 153 |
| 1997 | 325 | 410 | 498 | 530 | 556 | 795 | 516 | 516 | 110 | 159 | 154 |
| 1998 | 343 | 414 | 512 | 542 | 560 | 804 | $\begin{aligned} & 528 \\ & \text { LFS } \end{aligned}$ | 528 | 112 | 157 | 152 |
| 1997 | 360 | 400 | 495 | 519 | 554 | 769 | 99 | 500 | 106 | 155 | 154 |
| 1998 | 355 | 396 | 495 | 525 | 552 | 762 | 98 | 503 | 107 | 154 | 151 |
| 1999 | 351 | 383 | 487 | 539 | 548 | 750 | 97 | 504 | 107 | 154 | 149 |
| 2000 | 349 | 387 | 489 | 532 | 550 | 752 | 97 | 502 | 107 | 154 | 150 |

Table 3a: Percentage Distributions Across Education Categories: Canadian Males Aged 25-64; SCF, SLID and LFS

| Year | EL | SCF |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | 19 | 27 | 20 | 8 | 12 | 14 | 86 |
| 1982 | 17 | 26 | 20 | 9 | 12 | 15 | 85 |
| 1983 |  |  |  |  |  |  |  |
| 1984 | 15 | 25 | 22 | 9 | 14 | 16 | 84 |
| 1985 | 14 | 25 | 22 | 9 | 15 | 16 | 84 |
| 1986 | 13 | 26 | 23 | 9 | 14 | 16 | 84 |
| 1987 | 13 | 25 | 22 | 8 | 15 | 16 | 84 |
| 1988 | 11 | 24 | 24 | 9 | 16 | 16 | 84 |
| 1989 | 10 | 19 | 20 | 8 | 30 | 14 | 86 |
| 1990 | 8 | 19 | 20 | 7 | 31 | 14 | 86 |
| 1991 | 8 | 18 | 21 | 7 | 30 | 15 | 85 |
| 1992 | 7 | 17 | 21 | 7 | 31 | 17 | 83 |
| 1993 | 7 | 17 | 20 | 7 | 33 | 16 | 84 |
| 1994 | 6 | 15 | 20 | 7 | 33 | 19 | 81 |
| 1995 | 6 | 15 | 20 | 7 | 34 | 18 | 82 |
| 1996 | 5 | 14 | 19 | 7 | 36 | 18 | 82 |
| 1997 | 5 | 13 | 20 | 7 | 36 | 18 | 82 |
| SLID |  |  |  |  |  |  |  |
| 1993 | 5 | 13 | 15 | 12 | 36 | 20 | 80 |
| 1994 | 4 | 12 | 15 | 12 | 36 | 20 | 80 |
| 1995 | 4 | 11 | 14 | 12 | 37 | 21 | 79 |
| 1996 | 5 | 11 | 17 | 12 | 35 | 20 | 80 |
| 1997 | 4 | 11 | 16 | 13 | 36 | 20 | 80 |
| 1998 | 4 | 10 | 15 | 13 | 37 | 21 | 79 |
| LFS |  |  |  |  |  |  |  |
| 1997 | 5 | 14 | 19 | 7 | 36 | 18 | 82 |
| 1998 | 5 | 13 | 19 | 7 | 37 | 18 | 82 |
| 1999 | 5 | 13 | 20 | 7 | 37 | 18 | 82 |
| 2000 | 5 | 13 | 20 | 7 | 37 | 18 | 82 |

Table 3b: Percentage Distributions Across Education Categories:

## Canadian Females Aged 25-64; SCF, SLID and LFS

| Year | EL | HS1 | HS2 | $\begin{aligned} & \text { PS1 } \\ & \text { SCF } \end{aligned}$ | PS2 | UN | UN |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1981 | 12 | 25 | 25 | 9 | 17 | 12 | 88 |
| 1982 | 11 | 24 | 26 | 9 | 17 | 13 | 87 |
| 1983 |  |  |  |  |  |  |  |
| 1984 | 9 | 22 | 26 | 9 | 18 | 16 | 84 |
| 1985 | 8 | 22 | 27 | 9 | 19 | 16 | 84 |
| 1986 | 7 | 22 | 28 | 10 | 19 | 16 | 84 |
| 1987 | 8 | 22 | 26 | 9 | 20 | 15 | 85 |
| 1988 | 7 | 21 | 27 | 9 | 20 | 16 | 84 |
| 1989 | 6 | 17 | 24 | 8 | 31 | 14 | 86 |
| 1990 | 5 | 17 | 25 | 8 | 32 | 13 | 87 |
| 1991 | 5 | 14 | 25 | 8 | 32 | 15 | 85 |
| 1992 | 4 | 13 | 25 | 8 | 33 | 16 | 84 |
| 1993 | 4 | 13 | 24 | 8 | 35 | 16 | 84 |
| 1994 | 4 | 11 | 23 | 8 | 36 | 19 | 81 |
| 1995 | 4 | 11 | 23 | 8 | 36 | 18 | 82 |
| 1996 | 3 | 10 | 21 | 8 | 37 | 20 | 80 |
| 1997 | 3 | 10 | 21 | 8 | 38 | 20 | 80 |
| SLID |  |  |  |  |  |  |  |
| 1993 | 3 | 9 | 17 | 11 | 41 | 19 | 81 |
| 1994 | 3 | 8 | 17 | 11 | 41 | 20 | 80 |
| 1995 | 3 | 7 | 15 | 12 | 41 | 22 | 78 |
| 1996 | 3 | 8 | 20 | 11 | 38 | 20 | 80 |
| 1997 | 3 | 8 | 19 | 11 | 39 | 20 | 80 |
| 1998 | 3 | 7 | 17 | 11 | 40 | 22 | 78 |
| LFS |  |  |  |  |  |  |  |
| 1997 | 3 | 10 | 22 | 8 | 38 | 19 | 81 |
| 1998 | 3 | 10 | 22 | 8 | 38 | 19 | 81 |
| 1999 | 3 | 10 | 22 | 8 | 38 | 20 | 80 |
| 2000 | 3 | 9 | 22 | 8 | 38 | 20 | 80 |




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| No. 362: | The Timing and Duration of Women's Life Course Events: | A Study of Mothers With At Least Two Children

No. 363: Age-Gapped and Age-Condensed Lineages: Patterns of Intergenerational Age Structure among Canadian Families

No. 364: The Education Premium in Canada and the United States
K.M. Kobayashi
A. Martin-Matthews
C.J. Rosenthal
S. Matthews
A. Martin-Matthews
K.M. Kobayashi
C.J. Rosenthal
S.H. Matthews
J.B. Burbidge
L. Magee
A.L. Robb


[^0]:    ${ }^{1}$ Card, Kramarz and Lemieux (1999) study the relative wages of skilled and unskilled workers in the United States, Canada and France using data for the 1980s. They conclude that "... relative wages appear to be slightly less flexible in Canada than in the United States ..." (p. 869).
    ${ }^{2}$ In Robb et al. (2001), we discuss the strengths and weaknesses of extending the SCF with either SLID or LFS.

[^1]:    ${ }^{3}$ The BLS changed the way in which the data were processed in 1988 and released two data files for this year. In the context of the present paper the two sets of 1988 earnings numbers are very close and we report the averages of the medians in Table 1.
    ${ }^{4}$ Note that there are two columns for UN and NONUN. The first is real weekly earnings; the second is an index of this time series with the number for 1981 set equal to 100 .
    ${ }^{5}$ Of course, the composition of the non-university sample has changed a great deal.

[^2]:    ${ }^{6}$ For a more thorough analysis see Robb et al. (2001).
    ${ }^{7}$ Georges Monette of York University pointed out to us that one cannot treat a time series of cross-sectional numbers in the same way as a time series on panel data. Time ser ies of medians or means or other statistics from panel data are bound to be smo other than the corresponding time series from cross-sectional data sets.

