

# Russell Research

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## Spending patterns in retirement<sup>1</sup>

### Preface<sup>2</sup>

Where do Canadian retirees derive their income? How do they spend it? And what are the financial planning implications for those approaching retirement? Russell Investments is pleased to present a number of insights gleaned by combining our proprietary retirement research with a detailed analysis of the *Statistics Canada 2007 Survey of Household Spending*.

There are three core budgeting categories which potential retirees need to conceptualize: Essentials expenditures, Lifestyle expenditures, and Estate. Once expenditures are categorized in this fashion, it provides some framework for the retirement planning process. Keep in mind these three categories are satisfied in sequential order, i.e., Essentials expenditures need to be satisfied prior to Lifestyle, which in turn needs to be satisfied prior to Estate.

The first layer of expenditures that retirees will need to secure is related to their Essentials. These are the day to day expenses that are largely unavoidable, i.e., food, shelter and transportation. Once Essentials expenditures are provided for, the attention shifts to Lifestyle expenditures which aim to fulfill the need to enjoy life once in retirement. For those households with assets in excess of Essentials and Lifestyle, can then transition those assets to the Estate planning category, i.e. bequest to children, charity, etc.

This excess or residual amount in the Estate zone serves a dual function. In addition to bequest, it can also be thought of as funds which can provide some insurance versus unforeseen events. For instance, the deterioration of an investment portfolio due to an unexpected and meaningful decline in financial markets, or the case of those living beyond projected life expectancy. In both of these scenarios, any shortfall of assets can at least be partially offset via funds accumulated to the Estate zone.

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<sup>1</sup> Raw data for this research was derived from Statistics Canada's 2007 Survey of Household Spending. See Important Information for additional disclosures related to this data set.

<sup>2</sup> Special acknowledgement to Don Ezra, Co-Chair, Global Consulting, Russell Investments, for his thoughts and contribution.

Figure 1 illustrates how expenditures and income are allocated among the three categories for the broad group of retired households (Couples and Singles) aged 65-74. It further provides information related to the level of assets necessary to fund those expenditures based on the Russell Retirement Rule of \$20 which provides a rough approximation on the average level of assets necessary based on a targeted annual expenditure for those approaching retirement<sup>3</sup>.

Figure 1: Spending patterns for all households

Fully retired, age 65-74 for all households, all income level						
	Annual Expenses		Total Assets		Annual Income	
Estate Zone	Residual					
Lifestyle Zone	\$34,400	\$7,300	\$321,900	\$146,100	\$16,900	Other Private Sources and Investment Income
		\$8,800		\$175,800		
Essentials Zone		\$18,300		\$366,100		

Source: Statistics Canada, Russell Investments. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007. Note: Figures quoted in text may be slightly off from this illustration due to rounding of actual data. Expenses are inclusive of income tax.

<sup>3</sup> Russell's Retirement Rule of \$20 is a quick approximation on retirement funding and works in two ways. 1] Given a stated annual expenditure, \$20 can be multiplied by that stated amount to give an approximation of the level of assets necessary to achieve the income stream to cover desired expenditures. Or 2] Given a total asset amount for retirement, dividing that sum by \$20 would give an approximation of the annual income that total asset base can potentially generate. The Rule of \$20 is simply an approximation and individual levels will vary based on the specific circumstance. Please see Russell Investor Volume 9, Issue 1 for further information as well as information related to the sensitivity of the underlying assumptions.

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Our analysis shows that expenditures (Essentials + Lifestyle) for all Households were \$34,400 per year. Of this total, \$27,100 is attributable to Essentials expenditures, for which Government transfers (C/QPP + OAS)<sup>4</sup> will play a crucial role in covering. The income component that Government transfers provided was \$18,300 per year, which, when offset with Essentials expenses, equals about \$8,800 ( $\$27,100 - \$18,300$ ) the household will need from Other sources (Private & Investment Income) in order to support all of Essentials. Applying the Retirement Rule of \$20 to \$8,800 per annum equals \$176,000 ( $\$8,800 * \$20$ ) in total assets necessary at the commencement of retirement to cover Essentials expenditures. In other words, \$176,000 will be needed in addition to the assets Government transfers are projected to provide which equate to \$366,000 ( $\$18,300 * \$20$ ).

The second part of the three core categories is Lifestyle expenditures. Our research shows that Lifestyle expenditures equaled \$7,300 per annum for all Households. Again, applying the Retirement Rule of \$20, we get \$146,000 that will be necessary at the commencement of retirement to cover just the Lifestyle portion.

Combining total assets for Essentials + Lifestyle, exclusive of Government transfers, households will still need to be prepared to produce approximately \$322,000 ( $\$176,000 + \$146,000$ ) to fund retirement.

Figure 1 conceptualizes how the annual expenses, income, as well as total asset figures are categorized for the average household in retirement. While this illustration is for the broad group of retirees, individual circumstances will dictate exactly how these numbers will come together. We have re-created Figure 1 for the higher income cohort, those making \$60,000+, which can be found in the Appendix to illustrate how these categories and asset level can vary substantially. Also, the Rule of \$20 is an average approximation for the broad group of households approaching retirement. For those seeking greater security, the \$20 Rule can be adjusted upward which would work to provide additional safety. We will discuss this in greater depth in the section related to the Retirement Rule of \$20.

If the average household approaching retirement has not secured the level of assets necessary to fund retirement, they will have to take measures to curtail expenditures once in retirement. Our analysis reveals this is an exercise the average household actually engages in as expenditures decline as retirement commences. And once retired, the typical spending pattern is for households to somewhat sustain their post-retirement spending in the initial stages up to age 74 as they tend to enjoy all that retirement has to offer. But once the household has aged beyond 75, expenditures tend to decline consistently. This seems logical as retirees 75+ tend to downsize their spending as a result of health, spousal passing, etc – in general, not having the ability to remain as active as they were at the onset of retirement.

This research paper aims to take potential retirees step by step through the spending patterns of those who have retired. Our analysis covers expenditures, income, and most importantly, provides projections and tools which will allow potential retirees to approximate the level of assets necessary to fund retirement.

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<sup>4</sup> CPP = Canadian Pension Plan, QPP = Quebec Pension Plan, OAS = Old Age Security.

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## Executive summary

This research will aim to give a meaningful depiction of income, but more importantly, expenditures in retirement as well as monetary approximations on what it would take to cover those expenditures. We analyzed the entire data set for those fully retired aged 55+ from Statistics Canada 2007 Survey of Household Spending and have specifically elected to emphasize the data surrounding fully retired households in the 65-74 age cohort. We consider this group to be in the prime of their retirement, and as such, would provide the most precise approximation of spending in retirement.

There are three key concepts which Russell has analyzed to collectively give potential and current retirees a more enhanced depiction of retirement. The three topics at the heart of this retirement spending analysis are as follows:

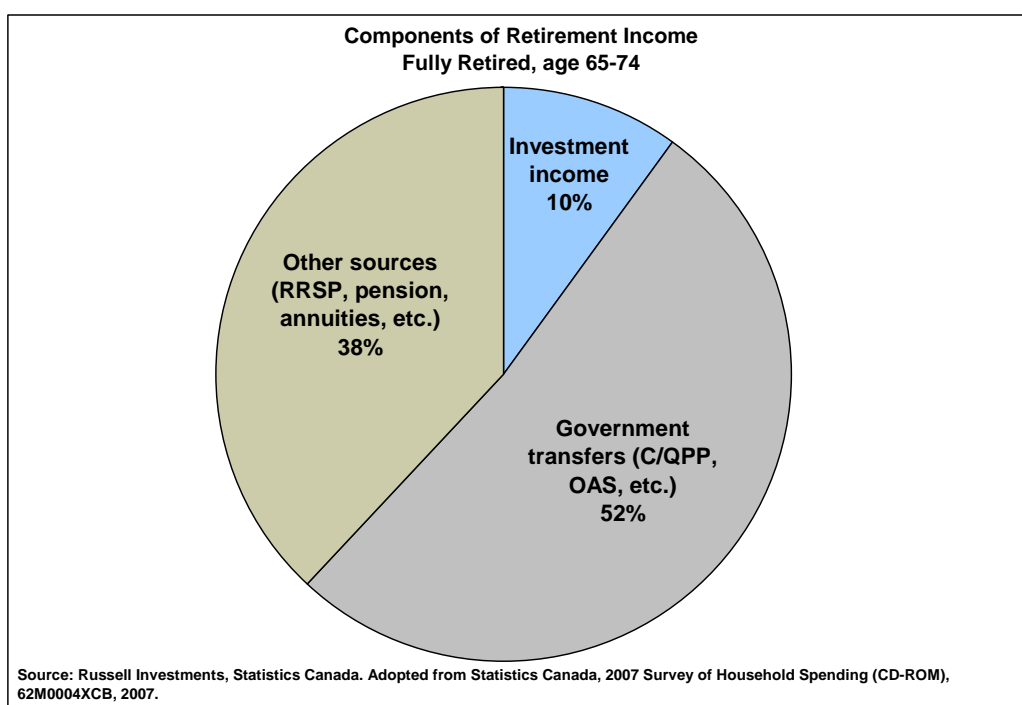
- Russell's ELE (Essentials, Lifestyle, Estate) concept to derive expenditures related to Essentials and Lifestyle in retirement
- Utilizing Russell's Retirement Rule of \$20 to provide approximations on the level of assets necessary to cover Essentials and Lifestyle expenses in retirement
- Providing a new approach to the conventional Income Replacement Ratio that places greater emphasis on expense coverage

Segregating expenditures into Essentials and Lifestyle components will make the information more consequential. Maintaining one's standard of living is based on the ability to keep up with expenditures post-retirement, which is often similar to the levels just prior to retirement. While income is also a crucial part of the equation, it becomes more relevant when we know what that income is targeting to cover in terms of expenses. Once we derived a realistic approximation of expenditures, Russell's Retirement Rule of \$20 was applied to give further context to the total level of assets that will likely be required in order to maintain those expenditures.

What we learn from the analysis is that for the broad population of fully retired households in the 65-74 age group<sup>5</sup>, a little over 50% of their income will come by way of government transfers, i.e. C/QPP, OAS, etc., as shown in Figure 2. We see the social safety net that the government provides as crucial to assisting households in offsetting a substantial part of their Essentials expenses. As such, we approximated the total level of assets necessary to cover those Essentials expenditures net of government transfers. The other component of income which is also substantial is the portion coming from sources such as Registered Retirement Savings Plan (RRSP), pension, etc. which accounts for roughly 38%. The remaining 10% was by way of investment income.

*For the broad population of fully retired households in the 65-74 age group<sup>5</sup>, a little over 50% of their income will come by way of government transfers.*

Figure 2: Components of income in retirement



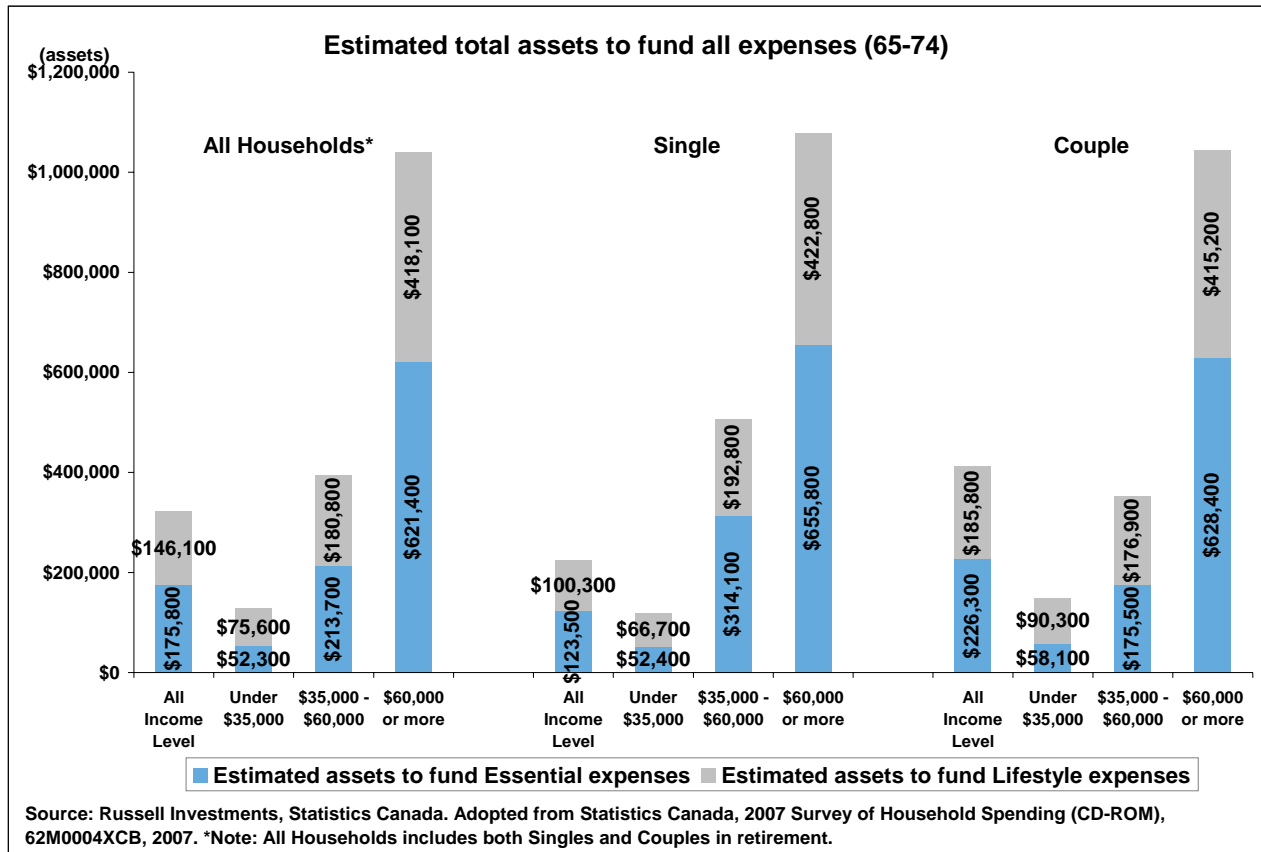
Since there will always be certain components of income such as principal withdrawals from non-registered assets which are difficult to completely account for, our approach places a greater emphasis on the expenditure side of the ledger. The analysis of expenditures was conducted utilizing Russell's Essentials, Lifestyle, & Estate (ELE) concept. We identified those categories within the Statistics Canada data which were most applicable to the Essentials and Lifestyle categories, and based on those estimations, we were able to delineate what the core expenditures for a typical retiree would be.

<sup>5</sup> See appendix for complete data set for retired households 65-74, as well as for 55-64, and for the broad group of 55+.

For all retired households between ages 65-74, the E+L expenses totaled roughly \$34,400 per annum. Applying Russell's Retirement Rule of \$20, a potential retiree would need roughly \$688,000 (\$34,400 \* \$20 Rule) to cover Essentials and Lifestyle expenses. While a sizeable figure, approximately 50% would be provided by way of government transfers. Therefore, the amount a potential retiree would need to accumulate, net of government sponsorship, would be roughly \$322,000. Figure 3 provides a summary of the level of assets approximated for the various income categories. Also worth highlighting in this illustration is the funding estimate for singles vs. couples in the \$35,000-\$60,000 income range. While counter intuitive, the funding requirements are greater for singles than they are for couples. The reason is a function of government sources of income and total expenditures for the two groups. The reduction in expenditures for the single household is not fully offset by the reduction in income from government sources relative to what a retired couple would receive (discussed in greater depth in Part Two related to the Rule of \$20).

*For all retired households between ages 65-74, the E+L expenses totaled roughly \$34,400 per annum.*

Figure 3: Summary of the Rule of \$20 on ELE concept



As will be discussed throughout this research, individual household circumstances will vary considerably based on the level of income, marital status, and the actual retirement age. For those who have a good grasp of their Essentials and Lifestyle expenditures and are close to their retirement, the simple equation listed below which utilizes the Rule of \$20 can be used to approximate the average level of assets necessary for funding retirement.

*Individual household circumstances will vary considerably based on the level of income, marital status, and the actual retirement age.*

Equation 1: Retirement funding approximation

$$\left[ \begin{array}{ccc} \text{Annual} & & \text{Annual} \\ \text{Essentials} & - & \text{Government} \\ \text{Expenditures} & & \text{Transfers} \end{array} \right] + \left[ \begin{array}{c} \text{Annual} \\ \text{Lifestyle} \\ \text{Expenditures} \end{array} \right] * \$20 = \underline{\underline{\text{Assets Approximated to Fund Retirement}}}$$

Source: Russell Investments

As an alternative approach, potential retirees can aim to replace 60% of their pre-retirement income (based on Russell's approximation of the income replacement ratio) in order to cover their Essentials and Lifestyle expenditures. Conventional thinking related to the replacement ratio misses the mark in what it aims to accomplish. While it is useful to know what level of income retirees may attain as a percent of their pre-retirement income, preparedness for retirement is based more on the dollar amount projected for expenses. Our analysis shows that expenses (Essentials + Lifestyle) equate to roughly 60% of pre-retirement income for the fully retired 65-74 age cohort – and it is this expense that should be captured as the income replacement ratio in retirement. Alternatively, it could be thought of more as an expense coverage ratio.

*Our analysis shows that expenses (Essentials + Lifestyle) equate to roughly 60% of pre-retirement income for the fully retired 65-74 age cohort.*

In life, preparation is the key to increasing the probability of success – and this becomes especially true in retirement. The data and tools in this research aim to better prepare current and potential retirees so they can increase their odds of a financially healthy retirement.

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## PART ONE: Components and attributes of Essentials · Lifestyle · Estate (ELE)

### EXPENSE ANALYSIS

While understanding income levels of households in retirement is important, it is even more crucial to understand how that income is being spent. Russell's ELE concept aims to categorize expenses in retirement into three broad categories, Essentials, Lifestyle and Estate. We keep the analysis in this research limited to Essentials and Lifestyle since those represent the core expenses in retirement. We feel one of the most critical aspects of retirement planning is having a thorough knowledge of expenses, and that starts with a methodical understanding of the compositions and attributes of these categories.

Table 1: Components of expenditures based on ELE concept (retired 65-74)

Mean of components of expenditure (including income tax)	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
Essential Expenditures (E)	\$ 27,100 79%	\$ 19,600 84%	\$ 31,200 78%	\$ 51,000 71%
Lifestyle Expenditures (L)	\$ 7,300 21%	\$ 3,800 16%	\$ 9,000 22%	\$ 20,900 29%
<b>ESSENTIALS (E) + LIFESTYLE (L)</b>	<b>\$ 34,400</b>	<b>\$ 23,400</b>	<b>\$ 40,200</b>	<b>\$ 71,900</b>

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

A 2009 retirement survey conducted by Russell Investments revealed households estimated the split between Essentials and Lifestyle expenses in retirement to be 62% and 38%, respectively<sup>6</sup>. As Table 1 highlights, the results of the survey are more in sync with actual data for those earning over \$60,000 but vary significantly for those in the other lower income cohorts. Broadly speaking, our research shows nearly 80% of the expenses in retirement for all retired household in the 65-74 age group will be categorized as Essentials, with about 20% as Lifestyle (the quoted Essentials and Lifestyle expenditures include income tax). For those earning less than \$35,000, Essentials represented 84% while those earning more than \$60,000, Essentials represented closer to 70% of total expenditures. This makes intuitive sense as those earning more will be able to spend a greater percentage of their respective spending budget towards Lifestyle expense while those earning less will not.

*Our research shows nearly 80% of the expenses in retirement for all retired household in the 65-74 age group will be categorized as Essentials, with about 20% as Lifestyle.*

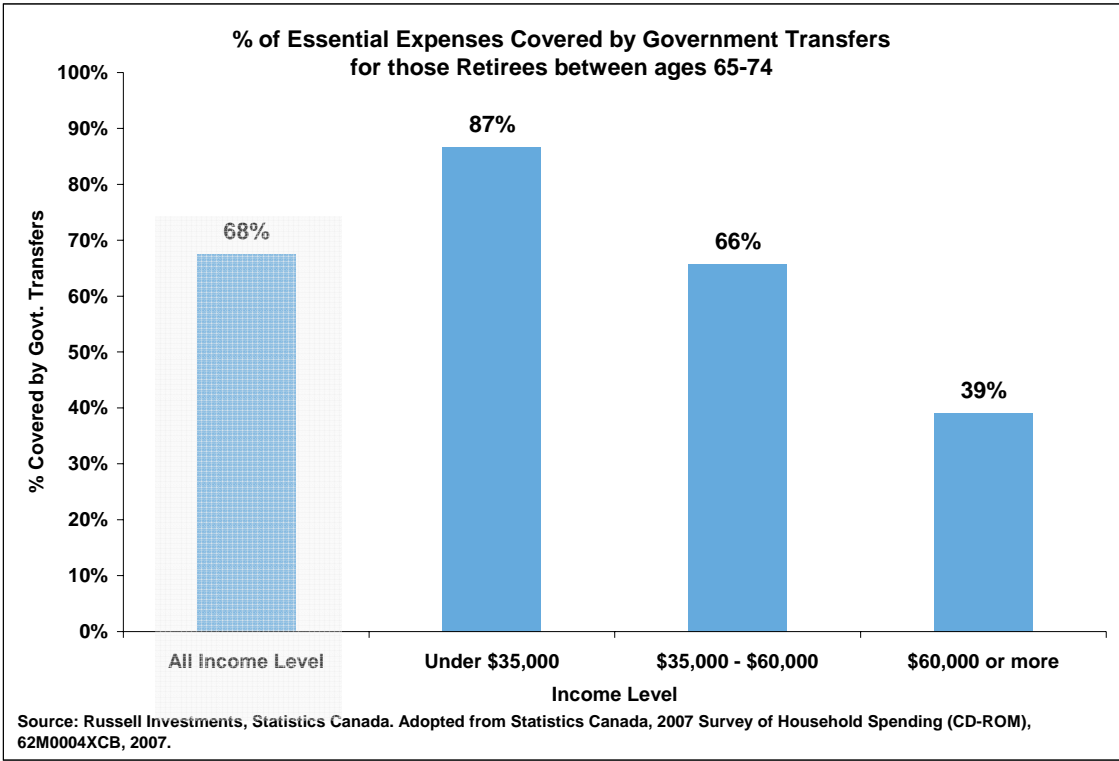
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<sup>6</sup> Russell Investments: 2009 Retirement Research with Investors. A survey conducted in conjunction with Harris/Decima (A Harris Interactive Company). The survey primarily included those in retirement or pre-retirement earning over \$50,000 in annual compensation.

Since one of the most reliable sources of income is that from the government, in our analysis, we use funds received from government transfers as an offset to Essentials expenses. Figure 4 highlights the importance of government transfers for all households. For the broad group of retirees in the 65-74 age group, nearly 70% of their Essentials expenses are covered by the government. These transfers are even more critical to the financial well being of those at the lower end of the income bracket. For those making less than \$35,000, 87% of their core essential expenses were covered by the government's social safety net. Even when we look at those in the upper income echelon, government transfers still cover a sizeable 39% of Essentials expenses.

*For the broad group of retirees in the 65-74 age group, nearly 70% of their Essentials expenses are covered by the government.*

Figure 4: Essentials expenses covered by government transfers



So while government transfers will help, they will not cover all of Essentials, especially for those in the higher income cohorts, and most definitely will not aid in the Lifestyle. To underestimate Essentials expenses would be a grave disservice since it represents the bulk of expenses in retirement – all of which will not be covered by the government. As such, Table 2 aims to provide some context around the makeup of Essentials expenses.

Nearly 75% of Essentials expenses for all households retired in the 65-74 age group were related to Food, Transportation and Shelter – basically the most obligatory of day to day necessities. Retirees looking to save will likely have to look elsewhere to garner additional income. Once a more precise estimate of Essentials expenses is at hand, households will know what is left over for splurging on Lifestyle.

Table 2: Breakout of Essentials expenses

<b>Components of Essentials Expenditures (retired 65-74)</b>	<b>All Income Levels</b>
<b>Shelter*</b>	37%
<b>Transportation</b>	21%
<b>Food</b>	18%
<b>Health</b>	7%
<b>Clothing</b>	6%
<b>Other</b>	11%
<b>% of Total Essentials Expenditures</b>	100%

*To underestimate Essentials expenses would be a grave disservice since it represents the bulk of expenses in retirement – all of which will not be covered by the government.*

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

\*Note: Shelter is inclusive of all expenditures related to primary residence.

When retirees go to play, where do they spend their money? As it turns out, expenditures towards Lifestyle are not concentrated into 2-3 categories but are more widespread. As Table 3 illustrates, eating out and vacationing are the two largest categories but they only sum to about 30% of total Lifestyle expenditures. Retirees looking to curb expenditures will likely have to look to Lifestyle for their curtailment as the impact would not be as hard felt as it would if Essentials expenditures needed to be pared back.

There are options outside of expense reduction that retirees can entertain such as part-time employment, or in the most extreme of circumstances, delaying retirement, all of which will also help in bridging the income-expense gap post-retirement.

Table 3: Breakout of Lifestyle expenses

<b>Components of Lifestyle Expenditures (retired 65-74)</b>	<b>All Income Levels</b>
<b>Trips &amp; Accommodations</b>	16%
<b>Food from restaurants</b>	14%
<b>Alcoholic beverages</b>	7%
<b>Owned vacation home</b>	7%
<b>Furniture</b>	6%
<b>Personal care services</b>	5%
<b>Tobacco products</b>	5%
<b>Private health insurance plans</b>	4%
<b>Inter-city transportation</b>	4%
<b>Gaming/Gambling</b>	4%
<b>Other</b>	27%
<b>% of Total Lifestyle Expenditures</b>	100%

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

## Sources of retirement income

Our analysis shows the average retiree earned about \$35,000 per annum. Majority of that income, 52%, came by way of Government Transfers, that is, CPP/QPP, & OAS. Historical data reveals this 50% level has been fairly consistent and should hold going forward. Keeping in mind there will be a cap on the dollar amount of income any household in retirement is eligible to receive from these two primary sources. Another 38% came from Other private sources such as personal RRSP and Defined Benefit (DB) pension plans. Only about 10% came from Investment Income from non-registered accounts.

As Table 4 highlights, depending on the range of income, the sources of income will vary considerably. As previously mentioned, those that are at the greatest risk in retirement are also those that are most dependent on the government for income. For those making under \$35,000, over 80% of their income will be from government transfers. Only about 15% comes from other registered plans, while the amount coming from investment income is nearly negligible at 3%. This is obviously the cohort that will have to make the greatest compromises with regards to their expenses.

*The average retiree earned about \$35,000 per annum. Much of that income, 52%, came by way of Government Transfers.*

Table 4: Sources of retirement income for those retired (65-74)

Components Of Total Income % of Total Cohort (retired 65-74)	All Income Level 100%	Under \$35,000 60%	\$35,000 - \$60,000 26%	\$60,000 or more 14%
Investment income	\$ 3,500 10%	\$ 600 3%	\$ 3,900 9%	\$ 15,800 19%
Government transfers (CPP, OAS, etc.)	\$ 18,300 52%	\$ 17,000 82%	\$ 20,500 47%	\$ 19,900 24%
Other Private sources (RRSP, pension, annuities, etc.)	\$ 13,400 38%	\$ 3,100 15%	\$ 19,500 44%	\$ 47,100 57%
<b>TOTAL INCOME</b>	<b>\$ 35,200</b>	<b>\$ 20,700</b>	<b>\$ 43,900</b>	<b>\$ 82,800</b>

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

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Although 60% of the households fell into the lower income category, the circumstances are particularly concentrated to those that are single. Of the 60% of households that fell into the less than \$35,000 category, 60% of them were retirees who were single. These single retirees had an average income of \$17,400, substantially less than the \$20,700 for the broader group. In addition, couples in the under \$35,000 category actually had an average income of \$25,800 – which was more than singles as well as the overall average for the group. So even though those making less than \$35,000 will face challenges, the challenges will be much more acute for those that are single. (See Appendix table for Fully Retired 65-74 for details behind this example).

*Of the 60% of households that fell into the less than \$35,000 category, 60% of them were retirees who were single.*

The picture improves markedly once we move into the income categories above \$35,000. The average retired household in the next income category is earning nearly \$44,000 (about 26% of the cohort), with a fairly even split coming from the Government as well as Other Private sources, 47% and 44% respectively, and the remaining 9% from Investment Income.

Finally, for those making over \$60,000 (about 14% of the cohort), their average income came in just under \$83,000, with more than half, 57%, coming from Other Private sources. This is the cohort that has had the benefit of significant pension plan and RRSP contributions. In addition, the savings within their non-registered accounts was just as significant and helps to provide an additional 19% in the form of Investment Income. Also worth noting is that there will be variability in the investment income component as it is derived from the income earned on non-registered assets and this income will be dependent on the prevailing yield environment.

*For those making over \$60,000, their average income came in just under \$83,000, with more than half, 57%, coming from Other Private sources.*

Furthermore, what is not captured in these figures is the size of non-registered assets and the actual principal withdrawals from those assets. While investment income is reported and can be accounted for, principal withdrawals are not as easily reported and they will further boost cash flow for the higher income cohorts. Due to the combination of the size of the registered assets as well as the investment income derived from non-registered assets, Government transfers for those making over \$60,000 represented the smallest share of total retirement income at 24%.

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## PART TWO: The application of the Rule of \$20

Once Essentials and Lifestyle expenditures are understood, we apply Russell's Retirement Rule of \$20<sup>7</sup> to approximate the level of assets necessary at the commencement of retirement for the respective household. The total assets necessary to sustain a comparable level of expenditures (as outlined in Table 1) will vary significantly based on the income category. For the broad group, inclusive of all incomes in the 65-74 age group, a conservative estimate to fund expenditures is approximately \$322,000 at the commencement of retirement<sup>8</sup>. Similar to other examples, those making under \$35,000 will need much less at about \$128,000, while those earning over \$60,000 would need much more at over \$1 million. See Table 5 for full summary.

There are several factors that come into play when determining the total required assets, and one of the primary attributes is the age upon which retirement commences. Besides spending less/saving more, one of the most effective defences towards projected retirement shortfall is postponing retirement itself. Doing so can have a meaningful impact on the retirement years. For instance, if retirement was to commence at age 67 as opposed to 65 (for the broad group), assets necessary to fund retirement would fall from \$269,000 to roughly \$254,000. As the retirement age increases, the number of years projected in retirement falls, hence a smaller asset base requirement.

*Besides spending less/saving more, one of the most effective defences towards projected retirement shortfall is postponing retirement itself.*

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<sup>7</sup> Russell's Retirement Rule of \$20 is a quick approximation on retirement funding and works in two ways. 1] Given a stated annual expenditure, \$20 can be multiplied by that stated amount to give an approximation of the level of assets necessary to achieve the income stream to cover desired expenditures. Or 2] Given a total asset amount for retirement, dividing that sum by \$20 would give an approximation of the annual income that total asset base can potentially generate. The Rule of \$20 is simply an approximation and individual levels will vary based on the specific circumstance. Please see Russell Investor Volume 9, Issue 1 for further information as well as information related to the sensitivity of the underlying assumptions.

<sup>8</sup> \$322,000 is estimated based on a retirement age of 60 and represents a more conservative estimate for the broader retirement population.

Table 5: Russell's Retirement Rule of \$20 to approximate funding requirements

Rule of \$20 application to ELE concept (retired 65-74)	All types of household			
	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
Estimated assets to fund <i>Essential</i> expenses (Net of Govt. Trf.)	175,800	52,300	213,700	621,400
Estimated assets to fund <i>Lifestyle</i> expenses	146,100	75,600	180,800	418,100
Estimated total assets to fund all expenses	321,900	127,900	394,500	1,039,500
<b>Estimated assets to fund expenses (E+L) at specific age:</b>				
Age of 65	269,200	106,900	329,900	869,000
Age of 66	261,500	103,800	320,500	844,300
Age of 67	253,900	100,800	311,100	819,600
Age of 68	246,200	97,800	301,700	794,900
Age of 69	238,500	94,700	292,300	770,000
Age of 70	230,700	91,600	282,800	745,000

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

Table 6 gives additional information on approximate funding levels for single vs. couples. The cohort that is most impacted financially is the single retiree earning between \$35,000 - \$60,000. Oddly enough, although single, they require a greater amount to fund retirement expenditures than their couple counterpart, \$507,000 vs. \$352,000 respectively. While not as intuitive, the main reason for this discrepancy is due to government transfers.

The primary expenditures, while higher, are not substantially so for a couple vs. a single retiree in the \$35,000 to \$60,000 bracket. The data shows Essentials expenses for couples were only about 12% higher. The reason being some of the core expenses, i.e. food, shelter and transportation, would not double for couples as a result of an additional person, but rather be an incremental increase. What does differ significantly, however, is the income received from government transfers which is used as an offset to Essentials expenses. Our analysis shows that couples in the \$35,000 - \$60,000 category received about 80% more in government transfers (\$23,508 vs. \$13,020, respectively) versus the single recipient. So while Essentials expenditures were lower for singles, the reduction in expenses was not a perfect offset to the reduction from government transfers.

Table 6: Russell's Retirement Rule of \$20 for single vs couple

Rule of \$20 application to ELE concept (retired 65-74)	Single				Couple			
	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
Estimated assets to fund <i>Essential</i> expenses (Net of Govt. Trf.)	123,500	52,400	314,100	655,800	226,300	58,100	175,500	628,400
Estimated assets to fund <i>Lifestyle</i> expenses	100,300	66,700	192,800	422,800	185,800	90,300	176,900	415,200
Estimated total assets to fund all expenses	223,800	119,100	506,900	1,078,600	412,100	148,400	352,400	1,043,600
<b>Estimated assets to fund expenses (E+L) at specific age:</b>								
Age of 65	171,800	91,400	389,200	828,200	372,600	134,200	318,700	943,700
Age of 66	166,500	88,600	377,200	802,600	362,800	130,700	310,300	918,900
Age of 67	161,200	85,800	365,200	777,100	353,000	127,100	301,900	894,000
Age of 68	155,900	83,000	353,300	751,600	343,100	123,600	293,500	869,000
Age of 69	150,600	80,100	341,200	726,000	333,100	120,000	284,900	843,700
Age of 70	145,300	77,300	329,100	700,300	323,100	116,400	276,300	818,300

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

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### **Case Study 1: Application of Rule of \$20 (based on information in Table 6)**

#### Household Profile:

Age:	63
Marital Status:	Married
# Years until retirement:	2
Projected Household Income in Retirement:	\$50,000

#### *Initial scenario:*

This household, which is not yet retired but is approaching retirement age, can utilize the information in Table 6 to gain some clarity around retirement. Based on the assumptions underlying the Rule of \$20, a Couple with the stated projected income would require approximately \$352,400 at the commencement of retirement in order to cover their Essentials and Lifestyle expenses (keeping in mind the projected requirement of roughly \$175,500 for Essentials expenses is net of government transfers). This serves to be a broad estimation as the household is not yet at retirement age but helps to provide some context around the approximate asset base necessary in two years time.

#### *Secondary scenario:*

Assume in 2 years time, as a result of financial hardship, retirement is pushed back to age 67. Since retirement is now being initiated 2 years post initial expectations, the level of assets required will therefore be less than initial projections as there will now be 2 fewer years in retirement than there would have been if retirement commenced at age 65. Based on the new retirement age of 67, \$301,900 would be the approximate level of assets required to fund Essentials and Lifestyle expenditures.

While this table serves to provide some broad estimates, in order to create more customized projections, please speak to your financial advisor.

Also, please see the Appendix for an actual summary generated from Russell's Essentials, Lifestyle, Estate (ELE) Retirement Tool for the Household profiled above.

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### PART THREE: Income replacement ratio

There are numerous studies related to the appropriate replacement ratio for retirees. They largely have varied on a number anywhere between 60% - 80% and the concentration has always been related to *income*. While we have addressed retirement income in our analysis, we have given greater weight to the fundamentals of expenditures in retirement. More important than what one earns in retirement, is what one *needs* to earn in retirement – and that need may only be addressed once expenses are fully understood.

The previously cited retirement survey from Russell also found pre-retirees often have a significant misconception on the level of income necessary for retirement<sup>9</sup>. The study reveals how households 6-10 years away from retirement often feel more confused and uncertain about a successful retirement than those just heading into or already in retirement. And this gap between perception and reality may be a result of misleading information on the level of income and assets necessary in funding retirement. Often times, those 6-10 years away from retirement likely are under the belief they will not have sufficient income for retirement.

The way Russell has approached the concept of replacement ratio is an extension of our work on the ELE concept. What we have computed reflects the percentage of pre-retirement income necessary to cover the households' expenditures in retirement. In addition, we segregated that portion of the total ratio that would be attributable to Essentials expenses only – or the bare minimum coverage that would be necessary. As Table 7 illustrates, the total expense coverage ratio is just about 60% for all retired households in the 65-74 age group. This ratio goes as high as 66% for couples and a bit lower for singles at 63%. So while there have been studies that mention the replacement ratio needs to be as high as 80%, Russell's research into retirement spending gives an approximation closer to 60% for the broad group.

*The total expense coverage ratio is just about 60% for all retired households in the 65-74 age group.*

Table 7: Income replacement ratio

Expense coverage ratio (Income Replacement Ratio)	All Households	Single	Couple
Essential Expenses Only	47%	50%	52%
Total Expenses (E + L)	60%	63%	66%

Source: Russell Investments, Statistics Canada. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

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<sup>9</sup> Russell Investments: 2009 Retirement Research with Investors. A survey conducted in conjunction with Harris/Decima (A Harris Interactive Company). The survey primarily included those in retirement or pre-retirement making over \$50,000 in annual compensation.

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In addition, if we were to segregate this ratio specifically to those expenses which are tagged as Essentials only, this coverage (or replacement) ratio is about 47% for all households and roughly 50% for both singles as well as couples in retirement. So, while 60% is what households should be targeting as the percent of pre-retirement income necessary to cover Essentials plus Lifestyle expenditures, if one was to just think only about the most compulsory of needs, then a ratio of roughly 50% would suffice.

The one caveat of the data set worth explaining is why the Replacement Ratio is lower for all households relative to singles and couples. This is primarily a function of the weighted average income for all households. We estimated the average pre-retirement income for those fully retired 65-74 based on the earnings of the households that are not yet retired within the 60-64 cohort. Within this sample of 60-64 non-retired households, the proportion of couples was substantially greater relative to singles. This is in contrast to the fully retired 65-74 cohort where this proportion was more evenly split between singles and couples. As a result, the weighted average income for all households is skewed up. The higher income denominator brings down the overall ratio for the broader group.

It may seem as if Russell's finding on replacement ratio is much too conservative, especially when compared to other research which pegs it closer to 80%<sup>10</sup>. The primary reason for this is that substantial expenditures which are persistent during peak working years are winding down as the household approaches and enters retirement. Expenses such as housing (i.e. mortgage) which can be the most significant portion of net pay, by and large, does not exist. Taxes also tend to be lower in retirement as income levels drop. In addition, and what most don't realize, once in retirement, households no longer have the "expense" of saving for retirement. Most households tend to sock away as much as they can during their peak working years for retirement – this no longer is the case once in retirement. Other expenses related to children, i.e. college education, is also likely done with.

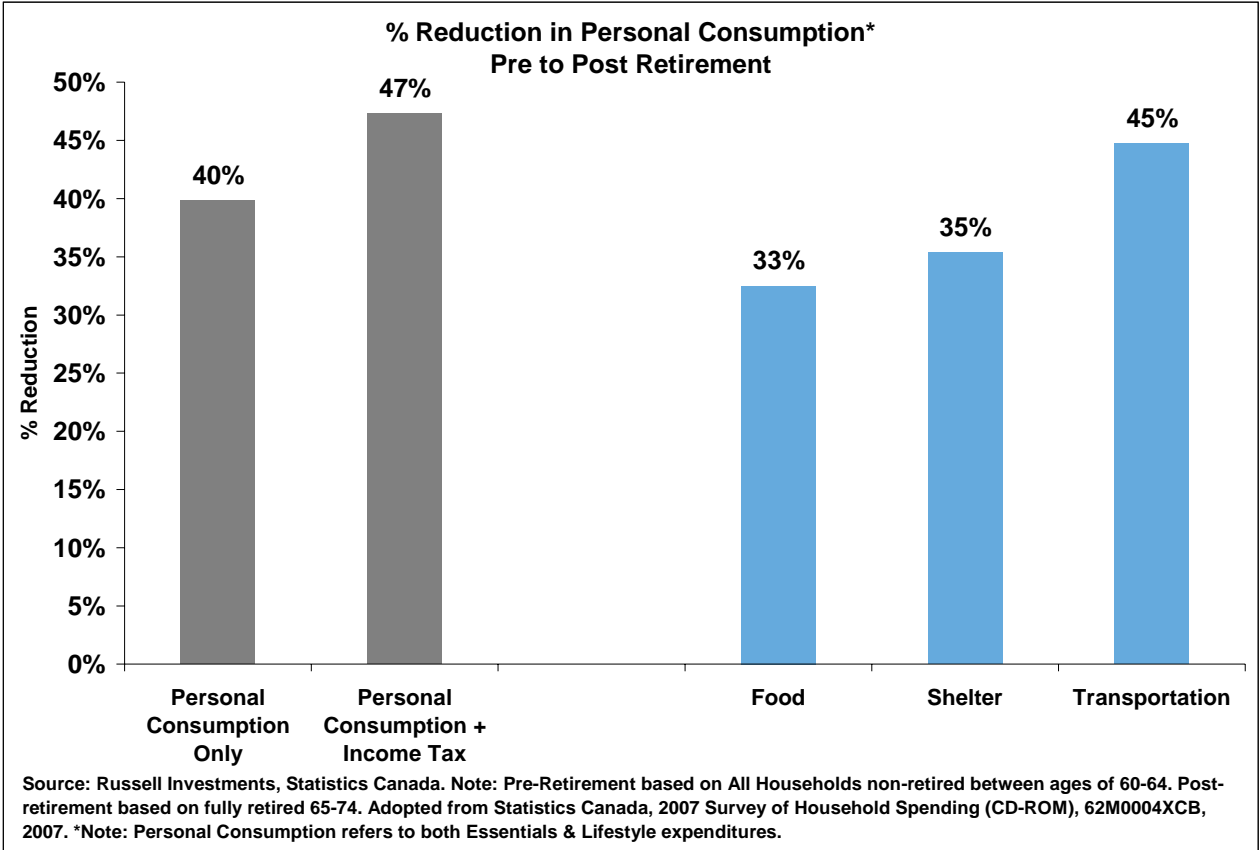
*What most don't realize, once in retirement, households no longer have the "expense" of saving for retirement.*

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<sup>10</sup> Fidelity Investments' report "The changing state of retirement in Canada", 2007, recommended a retirement income replacement rate of 80%.

Figure 5 emphasizes this point by illustrating how personal consumption declines by as much as 47% once the reduction in income taxes is taken into account. It further highlights how the three main sources of expenditures, Food, Shelter and Transportation, all decline in the range of 33% to 45% respectively. All of this substantially reduces the net amount of income necessary once in retirement.

Figure 5: Personal consumption: pre vs post retirement

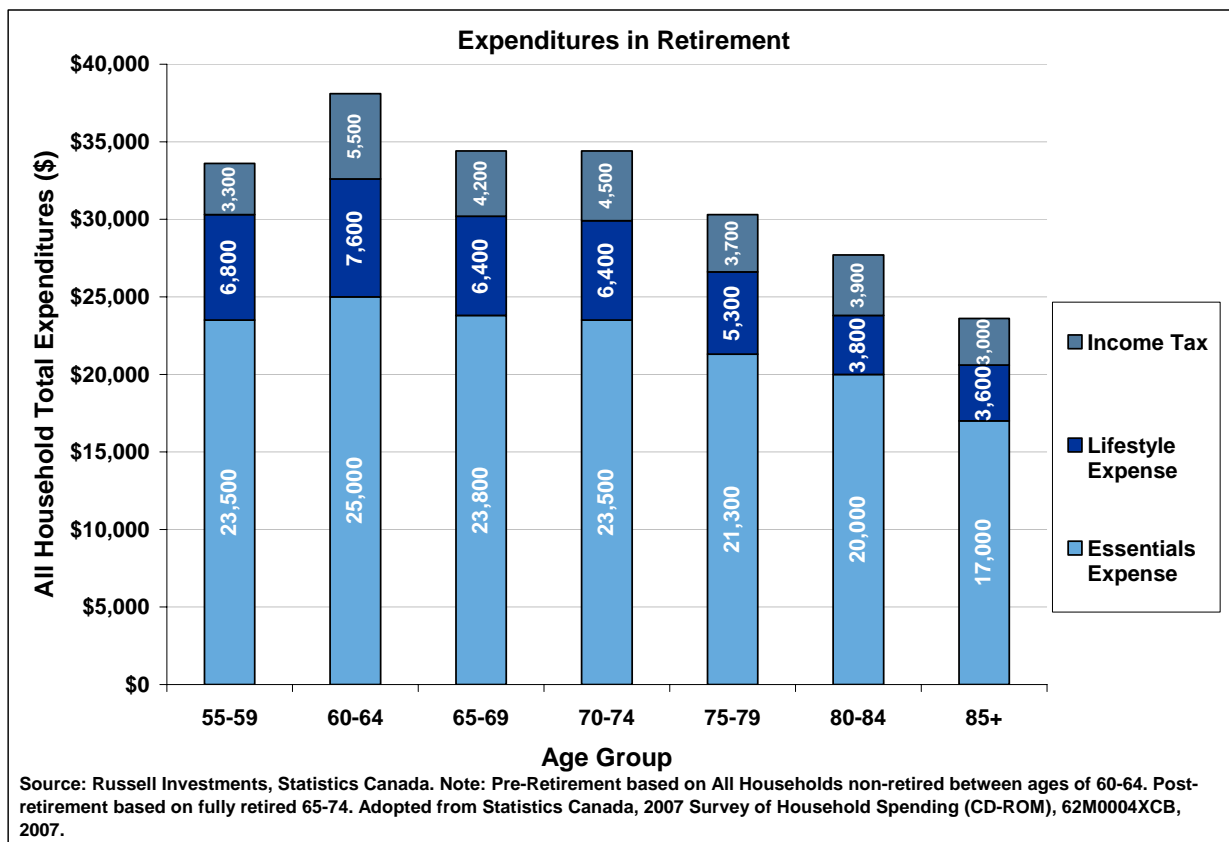


So while Figure 5 illustrates the drastic reduction in expenses from pre to post retirement, what potential retirees may not realize is the magnitude these expenses will continue to decline as retirement progresses. Our analysis shows that expenses for households already in retirement will decline substantially as they age. As illustrated in Figure 6 total expenditures (Essentials, Lifestyle and income tax) decline by roughly 18% from the 60-64 retired household cohort to the 75-79, and the decline is as much as 32% once retirees reach age 85+.

What we can draw from this information is that longevity has the potential to represent less of a concern as households advance in retirement. Intuitively this makes sense. Retirees, once they hit age 75+, will likely not be as active as they were when retirement typically commences in the 60-65 age range. This can be attributable to households spending less on Essentials as well as Lifestyle expenditures as retirement progresses. In addition to this general reduction of expenses, overtime, the probability of the passing of a spouse also increases, which would also have the impact of reduction in expenditures.

*Nearly 60% of potential retirees 10+ years away from retirement have longevity risk as a concern related to retirement.*

Figure 6: Reduction in expenses as retirement progresses



Our analysis is further validated by the separate Retirement Survey Russell Investments conducted in conjunction with Harris/Decima on pre and post-retirees. What the survey revealed was that nearly 60% of potential retirees 10+ years away from retirement have longevity risk as a concern related to retirement. But once retirees are actually 10+ years into retirement, only about 20% still consider longevity as a concern. The primary reason being the reduction in expenses throughout retirement as illustrated in Figure 6.

*But once retirees are actually 10+ years into retirement, only about 20% still consider longevity as a concern.*

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Those in the pre-retirement phase 5 or 10 years away from retirement fail to appreciate what their spending will be at commencement of retirement, as well as the concept that spending may actually decline as the household ages in retirement. This is in stark contrast to those already in retirement who have realized the decline in spending and thus place less of a concern to longevity. While inflation is always a paramount concern with regards to maintaining purchasing power in retirement, potential retirees should balance the impact of inflation with the likely reduction in expenditures as the household advances in retirement.

Relating this back to replacement ratio, of course a higher income replacement ratio is always more preferable. But all else being equal, the ratio of pre-retirement income that is necessary to cover Essentials and Lifestyle expenditures in retirement, based on our extensive analysis, is likely in the 60% range. An income replacement ratio that is north of that would provide additional security, while being mindful that expenses should normally decline as retirement progresses.

### **Case Study 2: Application of income replacement ratio**

#### Household Profile:

Age:	63
Marital Status:	Married
# Years untill retirement:	2
Pre-retirement Household Income:	\$75,000

For this household which is not yet retired but is two years away, utilizing the Replacement Ratio (RR) from Table 7 as a rough approximation results in a required income of about \$49,500 (\$75,000 pre-retirement income \* 66% RR). In other words, the household profiled should expect roughly \$49,500 in total expenditures (Essentials + Lifestyle) based on their pre-retirement income, and it is this amount which will need to be covered to sustain current lifestyle.

Also worth mentioning, as explained in this research, we assume the funds received from government transfers as a direct offset to Essentials expenditures. As per Table 4, if we assume nearly \$20,500 comes by way of government transfers, then roughly \$29,000 is the net amount of expenditures that will require funding from sources other than the government.

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## Conclusion

A successful retirement will be a function of how prepared the household will be once the day approaches. And being prepared is a function of having credible information that potential retirees can use to make informed decisions on. This research conducted by Russell Investments utilizing extensive data from Statistics Canada aims to be the voice of reason amid all the misinformation surrounding retirement. As Table 8 highlights, not all households are on equal ground with regards to their level of preparedness. But all will have options and opportunities to improve their position if required.

*Not all households are on equal ground with regards to their level of preparedness. But all will have options and opportunities to improve their position if required.*

Table 8: Risk of financial wellbeing in retirement

Risk in Retirement Matrix	Single	Couple
Less than \$35K	Highest	High
Between \$35K - \$60K	Medium	Medium
Greater than \$60K	Low	Lowest

Source: Russell Investments

Households will need to keep in mind that government outlays will play a crucial role in retirement for the broader group – this role will be even more acute for those in the lower income bracket as nearly 80% of Essentials expenses will be covered by government payments. And government sources will represent a significant portion of total income in retirement – to the tune of about 50% for the broader group. In addition, Essentials expenditures will represent the bulk of personal consumption in retirement, roughly 80%, while this itself will range from as high as 84% for the lower income cohort to about 70% for those earning over \$60,000. Lifestyle expenditures, roughly 21% for the broad group, will play a smaller role with regards to total consumption but this is where there will be some opportunities for those looking to curtail expenditures.

In addition to the ELE concept, the other insights from this research that potential retirees can utilize to assist with estimating retirement funding are the Russell Rule of \$20 for Retirement as well as our unique approach to the approximation of the income replacement ratio.

It makes sense to revisit Equation 1 illustrated below. For those approaching retirement that have a fair understanding of their Essentials and Lifestyle expenditures, the Rule of \$20 will help in providing a rough approximation on total assets necessary to fund retirement. Since rules of thumb are generally meant to provide some context around a more complex scenario, we highly recommend households take advantage of Russell Investment's ELE Tool (please speak to your financial advisor for more details.) The Tool will provide estimations which can be customized based on specific inputs by the individual.

### Equation 1: Retirement funding approximation

$$\left[ \begin{array}{ccc} \text{Annual} & & \text{Annual} \\ \text{Essentials} & - & \text{Government} \\ \text{Expenditures} & & \text{Transfers} \end{array} \right] + \left[ \begin{array}{c} \text{Annual} \\ \text{Lifestyle} \\ \text{Expenditures} \end{array} \right] * \$20 = \underline{\underline{\text{Assets} \\ \text{Approximated to} \\ \text{Fund Retirement}}}$$

Source: Russell Investments

Russell's approach to approximating the Replacement Ratio can also be utilized to provide some additional context regarding the amount of expenditures to expect in retirement. As Table 7 highlighted, a broad estimation of income replacement is roughly 60%. This 60% represents the proportion of expenditures based on pre-retirement income that will need to be covered (see Case Study 2 for a detailed example).

All said, the goal of this research is to provide those in retirement, but more importantly, those approaching retirement some definitive ideas and concepts that can be applied to provide a more complete picture of financial requirements in retirement. The more potential retirees can understand the spending patterns of those already in retirement, the better prepared they can be for their golden years (please see Appendix for greater depth on the data set of this research).

APPENDIX

Fully retired, age 65-74 for all households, income level \$60k+						
	Annual Expenses		Total Assets		Annual Income	
Estate Zone	<b>Residual</b>					
Lifestyle Zone	<b>\$71,900</b>	\$20,900	<b>\$1,039,500</b>	\$418,100	<b>\$82,800</b>	\$62,900
Essentials Zone		\$31,100		\$621,400		
		\$19,900		\$398,000	\$19,900	
					Other Private Sources and Investment Income	
					Government Transfers	

Source: Statistics Canada, Russell Investments. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007

**ESSENTIALS · LIFESTYLE · ESTATE (ELE) SUMMARY**

The following is a summary of your projected financial situation at retirement based on the information that you have provided and an anticipated retirement age of 65.

Your personal information is:

Current Age:	63	Number of Years until Retirement:	2
Marital Status:	Married	Province of Residence:	ON

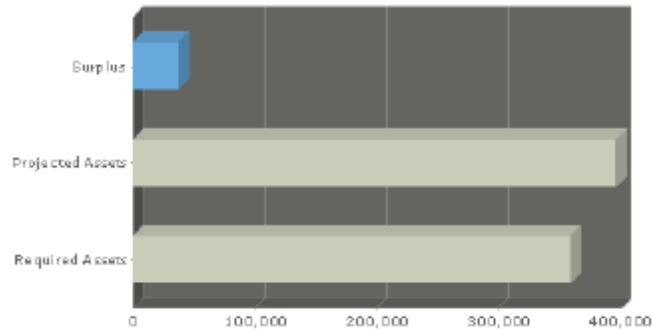
Based on your current estimate of your Essential and Lifestyle expenses, Other Income and an inflation rate of 3% the Russell ELE Retirement Tool projects the following:

	Current Amount (as provided)	Projected Amount (at retirement)
Essentials Expenses	\$32,000	\$33,949
Lifestyle Expenses	\$9,000	\$9,548
Other Income	\$23,500	\$24,931

**YOUR FINANCIAL OUTCOME AT A GLANCE**

Based on your provided information the Russell ELE Retirement Tool projects your personal financial situation at the Age of Retirement as follows:

Required Assets For Essentials and Lifestyle Expenses	\$360,399
Projected Assets with Annual Contributions	\$398,166
Surplus	\$37,767



This tool is for illustrative purposes only and is not an accurate predictor of future results. For further information about the tool, please refer to the Important Information page.

Please speak to your financial advisor for a customized projection utilizing Russell Investments' ELE Tool.

**AGE 65-74 (Fully Retired)**

Income level	All types of household				Single				Couple			
	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
<b>Households</b>	861,407	517,710	226,539	117,158	400,137	317,936	64,691	17,510	437,965	188,552	155,961	93,452
<b>Mean of components of income</b>												
Total income before tax	35,194	20,640	43,890	82,690	24,313	17,397	43,959	77,307	44,836	25,834	43,996	84,575
Investment income	3,542	608	3,928	15,762	2,883	656	7,178	27,435	4,287	541	2,727	14,448
Government transfers	18,299	16,974	20,490	19,918	13,932	14,124	13,020	13,822	22,149	21,480	23,508	21,228
Other sources	13,373	3,073	19,452	47,134	7,518	2,642	23,818	35,836	18,421	3,804	17,717	49,089
<b>Mean of components of expenditure</b>												
Personal consumption	30,035	22,603	34,627	53,993	22,580	19,275	30,949	51,666	36,834	28,190	36,322	55,128
Income tax	4,362	762	5,590	17,896	2,540	801	7,418	16,087	5,918	710	4,808	18,279
<b>Mean of components of personal consumption</b>												
Food	5,051	4,203	5,877	7,205	3,764	3,454	4,562	6,429	6,269	5,506	6,380	7,623
Shelter	8,048	6,647	8,684	13,011	7,060	6,279	8,470	16,030	8,864	7,225	8,749	12,361
Household operation	1,858	1,523	2,182	2,712	1,580	1,384	2,193	2,874	2,085	1,728	2,173	2,658
Transportation	5,771	3,983	6,417	12,422	3,742	3,153	4,860	10,313	7,660	5,362	7,167	13,118
Recreation	2,169	1,204	2,670	5,464	1,365	1,046	2,523	2,872	2,866	1,474	2,710	5,936
Clothing	1,407	995	1,736	2,592	962	821	1,392	1,948	1,827	1,305	1,907	2,746
Health	1,984	1,418	2,575	3,342	1,214	940	2,309	2,155	2,678	2,205	2,747	3,518
Personal Care	675	519	908	914	491	419	857	439	844	691	941	993
Furnishings and equipment	1,201	760	1,534	2,508	826	516	1,553	3,762	1,569	1,173	1,551	2,400
Reading and printed material	236	133	320	528	175	119	379	428	283	151	303	515
Tobacco and alcohol	786	584	894	1,465	695	578	992	1,728	875	587	853	1,494
Education	22	8	26	73	8	8	35	47	28	7	20	82
Miscellaneous	603	447	486	1,515	548	439	542	2,545	676	481	476	1,402
Net games of chance	225	180	318	244	143	118	282	97	310	295	344	283
<b>Rule of \$20 application to ELE concept</b>												
Personal Consumption	30,000	22,600	34,600	54,000	22,600	19,300	30,900	51,700	36,800	28,200	36,300	55,100
Essential expenses	23,700	18,900	26,800	38,300	18,100	16,100	23,200	35,500	28,800	23,800	28,500	39,500
Essential expenses (including income tax)	27,100	19,600	31,200	51,000	20,100	16,700	28,700	46,600	33,500	24,400	32,300	52,600
Minus Government transfers	(18,300)	(17,000)	(20,500)	(19,900)	(13,900)	(14,100)	(13,000)	(13,800)	(22,100)	(21,500)	(23,500)	(21,200)
Net Essential expenses	8,800	2,600	10,700	31,100	6,200	2,600	15,700	32,800	11,300	2,900	8,800	31,400
Lifestyle expenses (including income tax)	7,300	3,800	9,000	20,900	5,000	3,300	9,600	21,100	9,300	4,500	8,800	20,800
Estimated assets to fund Essential expenses	175,800	52,300	213,700	621,400	123,500	52,400	314,100	655,800	226,300	58,100	175,500	628,400
Estimated assets to fund Lifestyle expenses	146,100	75,600	180,800	418,100	100,300	66,700	192,800	422,800	185,800	90,300	176,900	415,200
Estimated total assets to fund all expenses (65-74)	322,000	127,800	394,500	1,039,400	223,800	119,100	506,900	1,078,600	412,100	148,400	352,400	1,043,600
<b>Actual factors at specific age</b>												
Estimated total assets to fund all expenses at age 65	269,200	106,900	329,900	869,000	171,800	91,400	389,200	828,200	372,600	134,200	318,700	943,700
Estimated total assets to fund all expenses at age 66	261,500	103,800	320,500	844,300	166,500	88,600	377,200	802,600	362,800	130,700	310,300	918,900
Estimated total assets to fund all expenses at age 67	253,900	100,800	311,100	819,600	161,200	85,800	365,200	777,100	353,000	127,100	301,900	894,000
Estimated total assets to fund all expenses at age 68	246,200	97,800	301,700	794,900	155,900	83,000	353,300	751,600	343,100	123,600	293,500	869,000
Estimated total assets to fund all expenses at age 69	238,500	94,700	292,300	770,000	150,600	80,100	341,200	726,000	333,100	120,000	284,900	843,700
Estimated total assets to fund all expenses at age 70	230,700	91,600	282,800	745,000	145,300	77,300	329,100	700,300	323,100	116,400	276,300	818,300

Source: Statistics Canada, Russell Investments. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

**AGE 55-64 (Fully Retired)**

Income level	All types of household				Single				Couple			
	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
<b>Households</b>	369,486	224,549	94,025	50,912	205,332	161,170	39,149	5,013	141,201	55,254	45,867	40,080
<b>Mean of components of income</b>												
Total income before tax	34,646	16,830	45,805	92,617	22,110	14,542	43,373	99,373	51,068	23,595	47,233	93,330
Investment income	5,329	772	5,516	25,084	2,877	653	5,379	54,821	9,583	1,174	6,625	24,562
Government transfers	10,809	10,780	9,797	12,812	9,243	9,453	6,425	24,478	12,308	14,693	10,870	10,666
Other sources	18,453	5,296	30,461	54,308	9,985	4,439	31,520	20,109	29,097	7,801	29,732	57,728
<b>Mean of components of expenditure</b>												
Personal consumption	31,752	20,290	40,594	65,975	23,764	18,054	42,343	62,229	42,676	27,774	40,622	65,569
Income tax	4,737	842	6,917	17,890	2,547	796	7,109	23,232	7,802	985	7,169	17,923
<b>Mean of components of personal consumption</b>												
Food	5,205	3,721	6,927	8,570	3,844	3,094	6,371	8,224	7,318	5,743	7,775	8,965
Shelter	8,479	6,622	9,844	14,151	7,251	6,346	10,590	10,270	10,151	7,413	8,952	15,297
Household operation	2,173	1,468	2,573	4,542	1,601	1,284	2,777	2,606	2,948	2,055	2,495	4,699
Transportation	5,885	3,000	7,751	15,162	3,766	2,388	7,821	16,417	8,124	5,066	7,524	13,027
Recreation	2,468	1,253	2,730	7,343	1,360	1,164	3,408	2,697	3,777	1,649	2,504	8,168
Clothing	1,355	778	1,751	3,169	767	631	1,281	1,117	2,165	1,268	2,165	3,402
Health	1,820	1,013	2,835	3,506	1,409	809	3,625	3,391	2,366	1,636	2,533	3,182
Personal Care	638	380	906	1,281	443	337	866	520	919	516	1,009	1,371
Furnishings and equipment	1,477	570	2,112	4,302	998	426	1,899	12,373	2,169	1,054	2,569	3,247
Reading and printed material	226	115	350	487	170	113	419	63	321	137	339	552
Tobacco and alcohol	1,027	710	1,457	1,634	884	707	1,460	2,076	1,324	768	1,640	1,730
Education	66	41	100	117	74	51	175	23	67	19	56	146
Miscellaneous	751	520	1,001	1,308	818	608	1,511	2,148	754	335	748	1,339
Net games of chance	180	98	257	401	110	97	141	304	272	115	312	443
<b>Rule of \$20 application to ELE concept</b>												
Personal Consumption	31,800	20,300	40,600	66,000	23,800	18,100	42,300	62,200	42,700	27,800	40,600	65,600
Essential expenses	24,400	16,600	31,200	46,500	19,000	15,000	31,800	46,900	31,400	22,000	30,900	44,900
Essential expenses (including income tax)	28,100	17,300	36,500	59,100	21,000	15,600	37,200	64,500	37,200	22,800	36,300	57,200
Minus Government transfers	(10,800)	(10,800)	(9,800)	(12,800)	(9,200)	(9,500)	(6,400)	(24,500)	(12,300)	(14,700)	(10,900)	(10,700)
Net Essential expenses	17,300	6,500	26,700	46,300	11,800	6,200	30,800	40,000	24,900	8,100	25,500	46,500
Lifestyle expenses (including income tax)	8,400	3,800	11,000	24,800	5,300	3,200	12,300	21,000	13,300	5,900	11,400	26,300
Estimated assets to fund Essential expenses	345,700	130,900	533,700	925,600	235,400	123,800	615,400	799,500	497,000	162,700	509,600	930,700
Estimated assets to fund Lifestyle expenses	167,900	76,100	220,600	495,400	106,000	64,100	245,200	420,100	266,400	118,600	228,800	525,800
Estimated total assets to fund all expenses (55-64)	513,600	207,000	754,300	1,421,000	341,400	187,900	860,500	1,219,700	763,400	281,300	738,400	1,456,500
<b>Actual factors at specific age</b>												
Estimated total assets to fund all expenses at age 55	547,600	220,800	804,300	1,515,300	342,600	188,600	863,600	1,224,000	861,900	317,600	833,700	1,644,500
Estimated total assets to fund all expenses at age 56	536,400	216,200	787,700	1,484,100	334,800	184,300	843,900	1,196,100	845,800	311,700	818,200	1,613,800
Estimated total assets to fund all expenses at age 57	524,900	211,600	770,900	1,452,400	326,900	180,000	824,000	1,167,900	829,500	305,700	802,300	1,582,600
Estimated total assets to fund all expenses at age 58	513,300	206,900	753,900	1,420,400	318,900	175,600	804,000	1,139,500	812,800	299,600	786,300	1,550,900
Estimated total assets to fund all expenses at age 59	501,600	202,200	736,700	1,388,000	310,900	171,200	783,800	1,110,900	796,000	293,300	769,900	1,518,700
Estimated total assets to fund all expenses at age 60	489,800	197,500	719,400	1,355,300	302,800	166,700	763,400	1,082,000	778,900	287,000	753,400	1,486,100
Estimated total assets to fund all expenses at age 61	477,900	192,600	701,800	1,322,200	294,700	162,300	742,900	1,053,000	761,500	280,600	736,600	1,453,000
Estimated total assets to fund all expenses at age 62	465,800	187,800	684,200	1,288,900	286,600	157,800	722,400	1,023,800	744,000	274,200	719,700	1,419,500
Estimated total assets to fund all expenses at age 63	453,700	182,900	666,400	1,255,400	278,400	153,300	701,800	994,700	726,300	267,600	702,500	1,385,700
Estimated total assets to fund all expenses at age 64	441,600	178,000	648,500	1,221,800	270,200	148,800	681,300	965,600	708,400	261,100	685,200	1,351,600

Source: Statistics Canada, Russell Investments. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

**AGE 55+ (Fully Retired)**

Income level	All types of household				Single				Couple			
	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more	All Income Level	Under \$35,000	\$35,000 - \$60,000	\$60,000 or more
<b>Households</b>	2,418,160	1,547,859	577,883	292,418	1,319,327	1,068,804	199,634	50,889	1,032,018	448,505	355,348	228,165
<b>Mean of components of income</b>												
Total income before tax	34,617	20,338	44,052	91,553	24,390	18,143	43,185	81,843	47,212	25,396	44,413	94,455
Investment income	4,392	781	4,151	23,980	2,874	846	6,135	32,682	6,530	661	3,250	23,177
Government transfers	17,369	16,198	19,385	19,580	13,899	13,948	13,365	14,968	21,504	21,329	22,296	20,612
Other sources	12,860	3,359	20,512	48,032	7,617	3,346	23,771	33,957	19,191	3,410	18,823	50,788
<b>Mean of components of expenditure</b>												
Personal consumption	27,877	20,675	33,848	54,203	21,505	18,427	31,830	45,663	35,702	26,014	34,939	55,934
Income tax	4,320	865	5,885	19,518	2,563	885	7,377	18,924	6,537	820	5,175	19,898
<b>Mean of components of personal consumption</b>												
Food	4,777	3,896	5,785	7,448	3,590	3,255	4,747	6,094	6,285	5,388	6,394	7,879
Shelter	8,117	6,900	9,012	12,789	7,516	6,811	9,888	13,023	8,813	7,114	8,403	12,792
Household operation	1,844	1,470	2,159	3,204	1,525	1,338	2,206	2,782	2,202	1,748	2,121	3,217
Transportation	4,651	2,858	6,100	11,272	2,764	2,188	4,577	7,763	6,893	4,472	6,841	11,731
Recreation	1,872	1,024	2,320	5,477	1,153	912	2,129	2,386	2,782	1,296	2,476	6,177
Clothing	1,212	815	1,561	2,619	849	702	1,343	2,002	1,672	1,091	1,711	2,753
Health	1,910	1,404	2,438	3,550	1,380	1,129	2,380	2,717	2,574	2,044	2,548	3,659
Personal Care	654	500	842	1,102	509	451	767	715	841	617	908	1,177
Furnishings and equipment	1,051	637	1,413	2,527	739	514	1,355	3,052	1,450	940	1,487	2,397
Reading and printed material	234	143	327	534	187	136	395	443	295	163	301	544
Tobacco and alcohol	681	465	909	1,379	539	435	942	1,136	872	535	903	1,489
Education	34	17	36	125	39	21	340	130	30	8	23	84
Miscellaneous	642	383	688	1,922	558	390	811	3,099	745	384	558	1,744
Net games of chance	197	164	256	255	156	145	227	109	249	215	264	291
<b>Rule of \$20 application to ELE concept</b>												
Personal Consumption	27,900	20,700	33,800	54,200	21,500	18,400	31,800	45,700	35,700	26,000	34,900	55,900
Essential expenses	22,100	17,400	26,600	38,400	17,500	15,500	24,500	33,500	27,700	21,900	27,500	39,400
Essential expenses (including income tax)	25,600	18,100	31,200	52,300	19,600	16,200	30,100	47,400	32,800	22,600	31,600	53,300
Minus Government transfers	(17,400)	(16,200)	(19,400)	(19,600)	(13,900)	(13,900)	(13,400)	(15,000)	(21,500)	(21,300)	(22,300)	(20,600)
Net Essential expenses	8,200	1,900	11,800	32,700	5,700	2,300	16,800	32,500	11,300	1,300	9,300	32,700
Lifestyle expenses (including income tax)	6,600	3,400	8,600	21,500	4,400	3,100	9,100	17,200	9,500	4,300	8,500	22,500
Estimated assets to fund Essential expenses	163,700	38,500	235,600	653,700	114,800	45,800	335,500	649,300	225,100	25,100	185,800	654,800
Estimated assets to fund Lifestyle expenses	132,900	68,300	171,300	429,200	88,600	61,500	181,300	343,100	189,700	85,000	170,600	449,600
Estimated total assets to fund all expenses (55+)	296,600	106,800	407,000	1,082,800	203,400	107,300	516,800	992,400	414,700	110,100	356,400	1,104,400
<b>Actual factors at specific age</b>												
Estimated total assets to fund all expenses at age 55	316,300	113,900	434,000	1,154,600	204,100	107,700	518,700	995,900	468,200	124,300	402,300	1,246,900
Estimated total assets to fund all expenses at age 56	309,700	111,600	425,000	1,130,900	199,500	105,200	506,800	973,200	459,500	122,000	394,800	1,223,700
Estimated total assets to fund all expenses at age 57	303,100	109,200	416,000	1,106,700	194,800	102,700	494,900	950,300	450,600	119,600	387,200	1,200,000
Estimated total assets to fund all expenses at age 58	296,400	106,800	406,800	1,082,300	190,000	100,200	482,900	927,200	441,600	117,200	379,400	1,176,000
Estimated total assets to fund all expenses at age 59	289,700	104,400	397,500	1,057,700	185,300	97,700	470,700	903,900	432,400	114,800	371,600	1,151,600
Estimated total assets to fund all expenses at age 60	282,900	101,900	388,100	1,032,700	180,400	95,200	458,500	880,400	423,100	112,300	363,600	1,126,800
Estimated total assets to fund all expenses at age 61	276,000	99,400	378,700	1,007,500	175,600	92,600	446,200	856,700	413,700	109,800	355,500	1,101,700
Estimated total assets to fund all expenses at age 62	269,000	96,900	369,100	982,200	170,700	90,100	433,800	833,100	404,200	107,300	347,300	1,076,300
Estimated total assets to fund all expenses at age 63	262,000	94,400	359,500	956,600	165,900	87,500	421,500	809,300	394,500	104,700	339,000	1,050,700
Estimated total assets to fund all expenses at age 64	255,000	91,900	349,900	931,000	161,000	84,900	409,100	785,600	384,800	102,200	330,700	1,024,800
Estimated total assets to fund all expenses at age 65	248,000	89,300	340,300	905,300	156,200	82,400	396,800	762,000	375,000	99,600	322,300	998,700
Estimated total assets to fund all expenses at age 66	240,900	86,800	330,600	879,600	151,300	79,800	384,500	738,400	365,200	96,900	313,800	972,500
Estimated total assets to fund all expenses at age 67	233,900	84,200	320,900	853,900	146,500	77,300	372,300	714,900	355,300	94,300	305,300	946,100
Estimated total assets to fund all expenses at age 68	226,800	81,700	311,200	828,100	141,700	74,800	360,200	691,500	345,300	91,700	296,700	919,600
Estimated total assets to fund all expenses at age 69	219,700	79,100	301,500	802,200	136,900	72,200	347,900	668,000	335,300	89,000	288,100	892,900
Estimated total assets to fund all expenses at age 70	212,600	76,600	291,700	776,100	132,100	69,700	335,600	644,300	325,200	86,300	279,400	866,000

Source: Statistics Canada, Russell Investments. Adopted from Statistics Canada, 2007 Survey of Household Spending (CD-ROM), 62M0004XCB, 2007.

## OTHER RETIREMENT RESOURCES FROM RUSSELL

1. "The 10/30/60 Rule: Where Do Defined Contribution (DC) Plan Benefits Come From? It's Not Where You Think"; Matt Smith, Bob Collie; January 2008
2. ELE Concept: [http://www.russellink.ca/Retirement\\_Centre/default.aspx](http://www.russellink.ca/Retirement_Centre/default.aspx)
3. Russell \$20 Rule for Retirement: Russell Investor Volume 9, Issue 1
4. Russell Financial Health Index:  
[http://www.russell.com/ca/My\\_Retirement/Resources/default.asp](http://www.russell.com/ca/My_Retirement/Resources/default.asp)

### Important information

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This analysis is based on Statistics Canada Microdata file 62M0004XCB which contains anonymized data collected in the 2007 Survey of Household Spending. All computations on these microdata were prepared by Russell Investments Canada and the responsibility for the use and interpretation of these data is entirely that of the author(s).

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