

## The Impact of Retirement on Health

Under the Retirement and Re-employment Act (RRA), employers are required to offer re-employment to eligible workers from Retirement Age (currently 62) until Re-employment Age (currently 65).

In 2019, the Tripartite Workgroup on Older Workers recommended increasing the Retirement Age and Re-employment Age to 65 and 70, respectively, by 2030. These recommendations were accepted in full by the Government, with the first increases to 63 and 68 for the Retirement Age and Re-employment Age, respectively, due on 1 July 2022.

The mandatory re-employment concept brought about by the RRA allows older workers, who are past the retirement age but are willing and able to work, to continue working. We explored the impact of the introduction of the re-employment age in 2012 on retirement in general, as well as the impacts across different occupation groups. We also delved into the effect of retirement on various health outcomes.

### How was the Retirement and Health Study (RHS) data used?

The RHS is a biennial longitudinal survey of a nationally representative sample of 15,103 individuals between ages 45 to 85<sup>1</sup> to understand the retirement and healthcare needs of Singapore residents over time. So far, four waves have been completed in 2014, 2016, 2018 and 2020. In the survey, respondents were asked various questions pertaining to retirement, mental and physical health as well as lifestyle behaviours and social engagement.

To examine the effects of the RRA and retirement on older workers, we focused on a population weighted sample of 7,903 individuals aged 55 and above who met the selection criteria<sup>2</sup> in wave 1.

<sup>1</sup> Respondents were between ages 45 and 85 inclusive at the point of selection in 2014.

<sup>2</sup> Individuals who never worked before, were disabled, permanently ill or studying were excluded from our study as we aimed to study the individuals in the workforce only.

The RRA decreased retirement rate, with a larger impact among men

## RRA effectively reduced retirement rates

After adjusting for education, marital status, housing assets and household expenditure, we found that the RRA decreased retirement rate in the overall sample by 8.7% points, with a larger impact of 9.1% points among men, as compared to women (7.3% points). The smaller effect on women could be attributed to them being more likely to be marginally attached to the workforce as compared to men. This could arise due to family obligations such as care for children/grandchildren. Therefore, women were more prone to consider early retirement even in the face of re-employment offers.

Moreover, we found that the RRA had a differential impact on re-employment for various occupation groups. To evaluate this, we classified occupations according to how routine their tasks are, with highly routine tasks being those that can be easily automated. We also identified occupations by whether they use mostly manual (i.e., physical) skills or non-manual (i.e., cognitive) skills. We thus classified the occupation groups into four broad categories based on their occupational tasks: High Manual and High Routine, High Manual and Low Routine, Low Manual and High Routine, and Low Manual and Low Routine. Then, we examined the impact of RRA on the individuals in each category based on the manual and routine intensity of their pre-retirement jobs.

**Figure 1: Examples of occupations by routine and manual content of tasks**

	<b>Routine (High Routine)</b>	<b>Non-Routine (Low Routine)</b>
<b>Manual (High Manual)</b>	<ul style="list-style-type: none"> <li>Stall Holders</li> <li>Butchers, Fishmongers and Related Food Preparers</li> </ul>	<ul style="list-style-type: none"> <li>Teacher Aides</li> <li>Police Officers</li> </ul>
<b>Analytic/ Interactive (Low Manual)</b>	<ul style="list-style-type: none"> <li>Hotel Operations and Lodging Services Managers</li> <li>General Office Clerks</li> </ul>	<ul style="list-style-type: none"> <li>Legislators</li> <li>Finance and Administration Managers</li> </ul>

The RRA had a larger impact on higher routine jobs

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We observed that the RRA had a significant positive impact on re-employment among higher routine jobs, especially higher routine and lower manual jobs. As these jobs tend to be less physically demanding and thus offer more elderly-friendly working conditions, the RRA may have been more effective in inducing employment.

### Impact of retirement on various health outcomes

Retired men saw an increase in polyclinic costs and healthcare visits

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Next, we used regression discontinuity design<sup>3</sup> to tease out the impact of retirement. Compared to those who continued working, those who retired saw an increase in polyclinic costs. Specifically, retired workers paid an average of 2.1% more per annum, or equivalently an increase of \$426 more per annum. This effect was concentrated among men, while no statistically significant impact was observed among women. Similarly, there was a corresponding 1.6% increase in healthcare visits among men upon retirement, but there was no statistically significant impact on women. Conceivably, the increase in healthcare utilisation post-retirement was a result of deteriorating health as well as respondents having more time to seek healthcare after retirement.

Additionally, we found that retirement had no statistically significant effect on cognitive function. This indicated that delaying retirement via the implementation of mandatory re-employment offers may not have had a noticeable impact on cognitive function in the short term. This could be because of the “honeymoon” effects of retirement, whereby retirees engaged in different activities that were put off for years due to work constraints. This sudden participation in desired activities may have attenuated the negative effect of retirement on cognitive function in the short run. Future waves can be used to study how cognitive function evolves overtime.

Retirement did not have an impact on cognitive function in the short run

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<sup>3</sup> Regression discontinuity design is used to estimate causal effects in a non-experimental setting. Here, the age cut-off for eligibility for mandatory re-employment offers is used to identify those affected by the RRA, and thus those more likely to remain in employment. Health outcomes for those near the age cut-off are compared to estimate the impact of retirement. More details can be found in the full report.

Retiring from a job with greater job satisfaction is associated with poorer health

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## Does job satisfaction affect physical and mental health?

Using the RHS, we also studied the relationship between job satisfaction before retirement and health outcomes following retirement. Here, we found a correlation between job satisfaction and physical and mental health. Specifically, retiring from a job with a higher job satisfaction score was associated with poorer self-reported health as well as a higher incidence of depression. While these findings were correlational and ought to be interpreted with care, they highlighted the potential importance of job satisfaction on health.

## Characteristics of respondents who re-join the workforce

Since the RRA also allows individuals to re-enter the workforce, we also examined the characteristics of those who re-joined the workforce. Amongst those who were economically inactive in wave 1, those who chose to re-join the workforce in wave 2 were healthier and more willing to work. The number of hospital visits of those who re-joined the workforce, a proxy for health condition, was similar to that of those who remained working. It was also higher than that among those who did not re-join the workforce or left the workforce.

Those who re-join the workforce tend to be healthier and more willing to work

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In addition, the RHS captures information on respondents' willingness to work by collecting information on the conditions that would motivate respondents to re-join the workforce. These conditions include relief from homemaking/childcare duties, the availability of flexible work arrangements, and working environments that are open and friendly to older workers. Using this, we found that 62% of those who re-joined the workforce indicated willingness to work under at least one condition, which was at least 14% points higher than that among those who chose not to re-join the workforce. Expectedly, willingness to re-join the workforce also decreased with age. Since re-joining the workforce may be predicted by the individual's ability and willingness to re-enter the workforce, both of which wane with age, this suggested that policies targeting employment of older workers may need to strike when the iron is hot before it is too late.

## Concluding remarks

Using data from the RHS, we studied the effectiveness of the RRA and found it to be effective in delaying retirement, with a larger impact on men than women. Workers from higher routine and lower manual jobs also responded more strongly to the RRA as compared to those in other jobs. Retirement also caused an increase in healthcare utilisation across the sample, especially among men. We posited that this was due to worsening health conditions and the lower opportunity cost of seeking healthcare following retirement. Furthermore, we found an interesting correlation between job satisfaction and physical and mental health, and uncovered the characteristics of respondents who chose to rejoin the workforce. These findings could help to improve existing efforts to support the employment of older workers.

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This article is a summary of the research team's full report "The Impact of Retirement on Health".