
Retirement Intentions: Physicians

Healthcare Workforce Data Center

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INTRODUCTION

The goal of this report is to examine whether physicians retire when they intend to retire. The impetus for the study is the concern of a physician workforce shortage within the next two decades¹. A potential physician shortage might be expected due to increases in healthcare demand arising from the country's rapidly aging population and the aging of baby boomers, that is those born between 1946 and 1964, who make up a significant proportion of the healthcare workforce. Four out of ten physicians are age 55 and over². Most of these baby boomers are expected to retire within the next two decades, leading researchers to predict a severe shortage of physicians. However, some of the prediction models about physicians' retirement are based on physicians' reported retirement intentions and plans, begging the question how closely do intentions and plans correlate with behavior? This study responds to that question for physicians licensed in Virginia as well as identifies several factors that increase the likelihood of retirement.

METHODS

Data

The data for this study comes from the Virginia Physician Workforce Survey. Every even numbered year, the Virginia Department of Health Professions Healthcare Workforce Data Center administers the Virginia Physician Workforce Survey to physicians in their birth month. In the survey, physicians are asked at what age they intended to retire. In this study, a physician's current age was subtracted from their intended retirement age to obtain the expected number of years to their retirement. This output, the expected years to retirement, was used to create the samples in this study. This study focuses on two physician samples from the 2014 survey data.

The first sample included physicians who intended to retire within two years of the 2014 survey. A second question asked the physician respondents about plans in the next two years. Options included retire, leave the profession, continue in the profession, decrease patient care, increase patient care, pursue additional education, decrease teaching time, and/or increase teaching time. This study selected those who expected less than two years to retirement on the first question and those who also indicated they planned to retire in two years. It excluded those who were already retired. This study also restricted the sample to physicians working in only medicine or osteopathy-related positions. Using 2014 as the base survey year and 2016 and 2018 as follow up years, this study examined how many of these physicians had retired by 2018 and the factors associated with retiring.

The second sample in this study is physicians who did not indicate that they intended and planned to retire within two years of the 2014 survey. The sample only included those working in a medicine or osteopathy-related capacity. This study examined how many of these physicians had retired by 2018.

As shown in the following table, there were 42,043 licensed physicians in 2014. Of those, 27,402 completed the 2014 survey. However, only 20,199 respondents answered the retirement age question; 7,203 did not respond to the question. Of the 20,199 who responded to the question, 1,514 indicated that they intended to retire within 2 years. Of the 1,514, 76% (1,145) also selected retirement as one of their two-year plans. However, 141 of these physicians indicated "retired" as their working status in another question so they were excluded from subsequent analysis. Another 49 were either involuntarily or voluntarily unemployed, or

¹ Buerhaus, Auerbach, and Staiger (2017) How should we prepare for the wave of retiring baby boomer nurses? Health Affairs, <https://www.healthaffairs.org/doi/10.1377/hblog20170503.059894/full/>

² <https://www.healthleadersmedia.com/strategy/us-physician-workforce-getting-old-fast>

working in a non-medicine or osteopathy field. The remaining 955 physicians were followed through the 2016 and 2018 surveys to see if they had retired. It is important to note that this study only reported on the retirement status of physicians who remain licensed in Virginia. Consequently, the retirement status of physicians lost to attrition was not reported.

| | Physicians |
|---|-------------------|
| Total licensees in 2014 | 42,043 |
| Total respondents in 2014 | 27,402 |
| Total who responded to retirement age question | 20,199 |
| Reported retiring within 2 years | 1,514 |
| Of those how many also reported 2-year retirement plan | 1,145 |
| % agreement between intentions and plan | 76% |
| Number already retired | 141 |
| Number not employed in medicine/osteopathy in 2014 | 49 |
| Sample 1: Number employed and intending/planning to retire after removing retirees | 955 |
| Sample 2: | 18,640 |

Of the remaining 19,244 who did not intend or plan to retire within two years, 18,640 were employed in a medicine or osteopathy-related capacity. This sample was followed for four years to see whether any of the physicians retired in 2016 or 2018.

Analyses

The first analysis examined how many of the respondents who intended and planned to retire in 2014 were retired at each subsequent survey year and reported the percent retired at the end of the review period. The second analysis also examined how many respondents in sample two were retired by the 2018 survey. The third analysis used logistic regression analysis to examine how different variables were associated with the likelihood of physicians in sample one retiring by 2018.

Measures

Dependent Variable

Respondents were asked what their working status was in subsequent years. The options included whether they were: 'Employed in medicine or osteopathy related capacity'; 'Employed capacity unknown'; 'Employed not in medicine or osteopathy related capacity'; 'Not working, reasons unknown'; 'Voluntarily unemployed (including for medical reasons)'; 'Involuntarily unemployed'; or 'Retired'. A binary variable indicating whether a respondent selected retired or not (1=Yes, 0=No) in 2016 and/or 2018 was created from this question. The frequency of respondents indicating they had retired was obtained from this variable and was used for the first two analyses. This variable was also used in the logistic regression analysis.

Independent Variables

Initial logistics regression models included the following independent variables: a continuous measure of age; dummy variables for female, White, Black, Hispanic, and Asian (Others was the reference); dummy variables for work establishment such as group practice, solo practice, hospital, clinics, etc. (Others was the reference); a dummy variable for working more than two full time positions, dummy job length variables including one for working between three and ten year, and another for working at least ten years (working for less than two years was the reference); dummy variables for working 30 to 49 hours, 50 to 60 hours, and over 60 hours (works less than 30 hours is the reference), and dummy variables for job satisfaction, has education debt,

licensed out of state, and access to employer-provided retirement and health insurance benefits. Dummy variables of different income categories were also included in initial models. The final logistic regression model included any of these variables that contributed significantly to the fit of the model of the likelihood of retirement.

RESULTS

Using 2014 survey data, the following table compares the summary statistics of sample one and that of all licensed physicians in the state. Not surprisingly, the mean age of physicians who intended and planned to retire within two years was higher than the mean for the overall physician population; the intended retirees had a mean age of 66 years compared to 50 years for the general physician population. The intending to retire sample also had a higher proportion of Whites compared to the general population and a lower proportion of Blacks and Asians. The intended retirees were more likely to be working in solo practices and other establishments, and less likely to be working in group practices and hospitals compared to the general physician population. Females were more likely to be represented in the general population and less likely to intend to retire.

| | Physicians in Study | All Physicians |
|--|-----------------------|---------------------|
| Mean age | 66 yrs. | 50 yrs. |
| % Female | 20% | 36% |
| % White | 78% | 67% |
| % Black | 4% | 7% |
| % Hispanic | 3% | 3% |
| % Asian | 13% | 17% |
| % Others | 2% | 6% |
| % Group practice | 34% | 39% |
| % Solo practice | 15% | 13% |
| % Hospital | 24% | 30% |
| % Other work establishments | 27% | 18% |
| % Works one part time position | 35% | 13% |
| % Works full time/2 part time | 61% | 74% |
| % Works 2 or more full time | 2% | 13% |
| Job length between 3 and 10 years | 27% | 37% |
| Job length more than 10 years | 57% | 34% |
| % Works <30hrs | 31% | 10% |
| % Works 30-49 hrs. | 38% | 39% |
| % Works 60+ hrs. | 14% | 26% |
| % Satisfied with job | 90% | 94% |
| Median income | \$150,000 - \$175,000 | \$175,000-\$200,000 |
| % Education Debt | 4% | 30% |
| Median education debt | \$5,000 | \$5,000 |
| Mean education debt | <\$25,000 | \$25,000-\$37,500 |
| % Licensed outside state | 46% | 48% |
| % in VA Workforce | 69% | 58% |
| % Employer-provided health | 54% | 58% |
| % Employer-provided retirement | 49% | 53% |

The intended retirees were more likely to be working one part-time position and less likely to be working two or more full time positions; only 2% of them were working more than two positions compared to 13% doing so

in the general physician population. Over half of those intending and planning to retire within two years had been at their position for more than a decade compared to 34% in the general physician population. The sample of intended retirees was also more likely to be working less than 30 hours per week; further, only 14% of them were working more than 60 hours per week compared to 26% of the general physician population. Ninety percent of the intended retiring physicians were satisfied with their job compared to 94% of the general physician population. Compared to the general physician population, they also were less likely to have education debt and they reported a lower median income. Nearly seven out of ten worked in Virginia compared to 58% of the licensed physician population. Receipt of employer-provided benefits was slightly lower among the intended retirees. For instance, 54% reported receiving employer-provided health insurance compared to 58% in the general physician population.

How Closely Do Retirement Intentions and Plans Correlate with Behavior?

Sample One

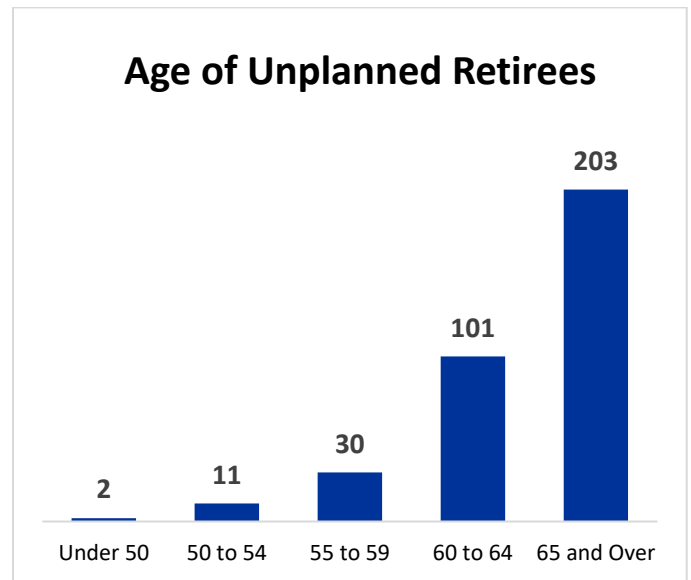
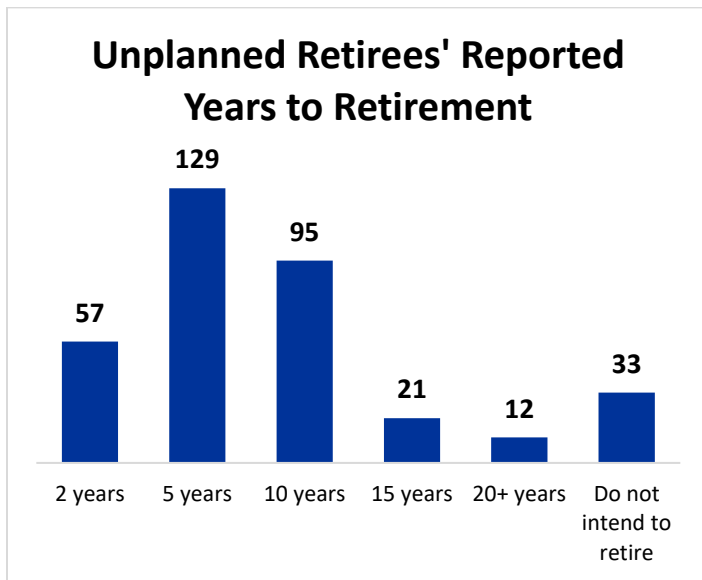
As seen below, at the end of 2018, the retirement status of only 689 of the 955 physicians who reported that they intended and planned to retire within two years but who were not retired in 2014, was known; the status of the remaining 266 physicians was unknown because their license had expired or was no longer active in the state. Of the 689 with known status, only 228 had retired in 2018. Of those 228, 133 retired in 2016 and 95 retired in 2018. However, 461 of the 689 physicians with known status had not retired. Hence, only 33% of physicians who had a 2-year retirement intention and plan in 2014 had retired by 2018, four years after they stated their intention and plan.



Sample Two

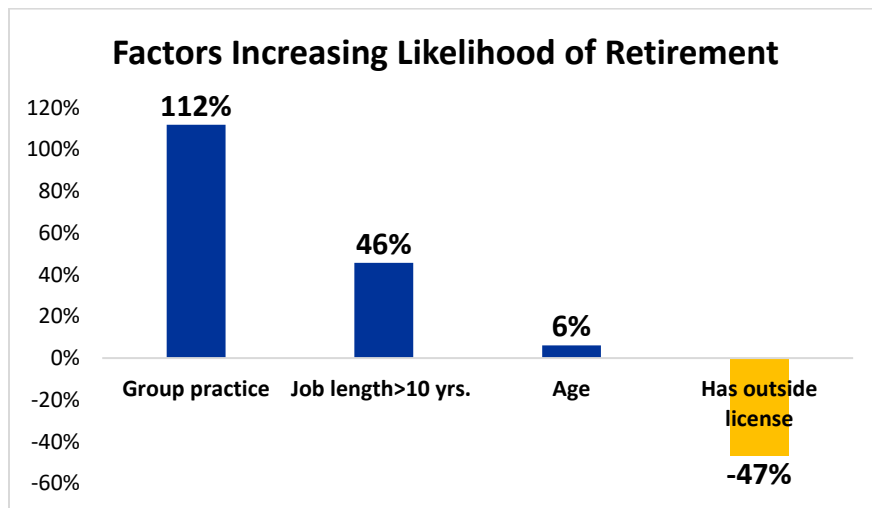
The second analysis examined physicians who did not intend and plan to retire within two years of the 2014 survey to see whether any retired in 2016 and 2018. Of the 18,640, 347 (2%) had retired by 2018: 118 retired in 2016 and 229 retired in 2018. Although none of the 347 had indicated a two-year retirement plan in 2014, 57 (16%) of these had indicated a two-year retirement intention in 2014. Another 129 also had indicated that they would retire within a five-year period. In all, 53% of those retired had stated an intention to retire within five years of the 2014 report and retired within their intended retirement years. The figure on the left on the next page shows the retirement intentions previously reported by the 347 retirees. The second figure shows

the ages of these retirees who did not indicate a two-year retirement plan previously. Nearly nine out of ten were over age 60.



What Factors Increase the Likelihood of Retirement Intentions and Plans to Correlate with Behavior?

The third analysis used logistic regression to examine the factors that increased or reduced the likelihood of retirement for physicians in sample one. The final logistic regression for physicians examined the factors that predicted the likelihood of retiring in a 4-year period after a physician had stated an intention and plan to retire within two years. This final model included work establishment, job length, age, having a license from out of state, race, and gender as independent variables. The following figure presents the findings from the model.



Source: VA. Healthcare Workforce Data Center
 Nagelkerke R Square=0.14
 $\chi^2(n, d.f) = 68.7(68, 6)$
 *p<.08. **p<.05. ***p<.01. ****p<.001

As seen in the figure, working in a group practice as opposed to working in all other establishments increased the likelihood that a physician who had intentions and plans to retire would do so within four years. Holding

the same position for over a decade compared to less increased a physician's likelihood of retiring in the 4-year period by 46%. Further, for every year of increasing age, the likelihood of retirement went up by 6%. Race approached significance at 0.06 level; White physicians were 55% more likely to retire within the 4-year period than non-white physicians. Having at least one other state physician license reduced the likelihood of retiring within four years by 47%. None of the other variables were significant.

CONCLUSION

The findings from this study are encouraging; less than half of physicians licensed in Virginia who intended and planned to retire within a 2-year period did so. On the other hand, some physicians who did not indicate that they planned to retire did; about half of these stated an intention to retire within five years of the 2014 survey but did not have a two-year plan to retire. However, even after including these unexpected retirements, fewer physicians exited in the four-year period examined compared to the number expected to exit in the stated two-year period. A total of 575 physicians exited the workforce by 2018 compared to the 955 who indicated they intended and planned to exit by 2016. Further, the number of licensed physicians in Virginia increased by 2,801 in the same four-year period, more than making up for the loss due to retirement. The extent to which this overall increase meets the projected increase in healthcare demand, however, is not known.

The effect of attrition on the results obtained in this study is not known. Slightly more than a quarter of physicians were lost to attrition in the four-year period during which the physicians were observed. This is an unavoidable concern because this study uses data from Virginia licensing system and is unable to follow physicians who are no longer licensed or active in the state.

These findings suggest that the projected physicians' shortage may not be as severe as anticipated in Virginia. Indeed 9% of physicians in Virginia's workforce reported an intention to retire within two years in the most recent survey in 2018, which if true, would require a significant influx of medical graduates into the pipeline. Furthermore, this study identified some factors that may be targeted to encourage physicians to delay retirement. Not surprisingly, the logistics regression model revealed that the oldest physicians could be targeted to delay retirement. Group practices also may need to be prepared for higher retirement rates among their physicians and explore how to incentivize physicians to delay retirement or increase their pipeline. Such incentives should also target those who have worked more than a decade at their current job. The success of such retirement-delaying incentives will likely depend on the health status of the physicians and other competing interests in their lives. Nonetheless, it is reassuring that, even though a lot of baby boomer physicians will be exiting the workforce, many remain past their intended and planned exit. Further, individuals often retire in stages (as evidenced by the number working only part-time prior to intended retirement) so it is likely that some of the retiring physicians may return to work fewer hours at community clinics where they have less responsibilities but will still help respond to the increased healthcare demand. The condition of the economy will likely also play a critical role in how closely physicians' retirement intentions and plans match their behavior.