changes to working models for property managers, building owners and operators, due to new technologies changing the way buildings are built and monitored, albeit quite slowly.

"Development with the Internet of Things means it is now possible to deploy a sensor to measure most things in a building environment at virtually no cost, and at close to zero energy consumption. But we're seeing a slow rate of change for building owners and operators to deploy those technologies," he says.

EXAGGERATED PERCEPTIONS

Though digital disruption will definitely continue to occur, the extent to which it will affect the workforce is often exaggerated, Dr Tuffley says.

"Just because something can happen, doesn't mean it will happen. The picture that the futurists paint depends entirely on there being no other constraints to the growing technological ability to do something. But the fact is that people will still be needed in jobs for all sorts of reasons," he says.

The widespread disapproval of the 2012 decision of Campbell Newman and the former Queensland Government to dismiss around 15,000 public servants demonstrated that mass job loss could have a considerable effect on public morale and the economy, which governments and businesses will no doubt bear in mind, moving forward.

"Though it's theoretically possible to develop an algorithm or a computer program that could perform the same process of thinking and arrive at the same answer, this is not only what we should be basing our predictions on," adds Dr Tuffley.

"People would still prefer to deal with other people, and so professionals will increasingly start to have more systems behind them that support the work that they do and make them better at doing it, but that will be back-end, not front-end."

SKILLS FOR A NEW WORLD

As explored in part one of this series by Ineke McMahon (featured in Vol. 5, No. 3), the efforts of people to develop themselves professionally in preparation for technological change will be key to surviving in an increasingly automated workplace.

Though technology skills will be of huge value and workers will need to proactively skill-up on the latest systems, processes and requirements, standout workers will still be those that excel in the same uniquely human qualities.

"Interpersonal skills will remain extremely important, especially with the introduction of psychometric tools to test those things," explains McMahon.

"Employers not only want to know that the person has the skills and motivation to do the job, they want to know if you'll work well in their team, or if it's a leadership role, what your leadership style is like."

Also important will be creative problem solving and communication skills to demonstrate innovative and collaborative thinking.

"People able to think creatively, and use technological tools to help them to solve those up-to-the-minute problems, are going to be important," says Dr Tuffley.

"INTERPERSONAL SKILLS WILL REMAIN EXTREMELY IMPORTANT, ESPECIALLY WITH THE INTRODUCTION OF PSYCHOMETRIC TOOLS TO TEST THOSE THINGS"

"Communication skills will always be in demand too. My IT students don't believe me when I tell them this, they say 'I'm just in this for the programming, I don't need to know how to communicate'. But if they're going to stay relevant and want to reach management level, they definitely need to develop those skills."

While automation will disrupt and evolve jobs whether we like it or not, this is not the death-knell of the workforce—those with this skillset have always been in demand, and will continue to be so.

"People will always want that human touch. I can't see that changing," says Dr Tuffley. "The technology will simply have its place in that whole scheme."

The demographics of Australian retirement village residents

The University of Technology, Sydney's **LOIS C TOWART** shares her research findings to determine the different financial demographics of residents of retirements villages compared with other older Australians.

For older Australians capable of living independently, accommodation options include living in the community (owned or rented) or moving to age-specific housing. Retirement Villages (villages) are the major type of age specific housing, by population, in Australia and are operated under state and territory legislation. Village residents pay an initial capital contribution to enter the village and on exit pay a Deferred Management Fee (DMF) to the village operator. This financial structure gives rise to the perception that village residents are financially different to other older Australians (aged 65 and older). There is little extant literature on the demographics of residents in villages and whether this group differs significantly from those in other forms of housing.

While data at a village level is available to a valuer or analyst, there is a lack of wider industry data on which to establish benchmarks or compare the socio-economic demographics of the two groups, which can lead to incorrect perceptions based on anecdotal information and/or village advertising material.

Prior to 2007, there were predictions that future demand for village living would be driven by an ageing cohort considerably wealthier than those preceding (Stockland, 2007). This cohort would demand more luxurious village accommodation, particularly of the "lifestyle village" which would be occupied by self-funded retirees (Jones Lang LaSalle, 2006). These predictions fuelled investment and development in the sector funded by equity and debt finance (The Prime Retirement and Aged Care Property Trust, 2007) and to date their financial performance has been varied (Towart, 2015).

The financial performance of villages is underpinned by resident demand (Moshione, 1992; Elliott, et al., 2002), therefore an understanding of these residents is needed. Research into village residents can contribute to development and investment decisions, particularly with regard to pricing and ongoing fees. Planning policy that promotes age specific housing has a need for research into current residents in order to predict future utilisation of this type of accommodation. This research determines whether village residents differ from older people in other forms of housing, and overcomes the issues of smaller sample-based analysis by incorporating the largest possible sample size.

DATA AND METHODS

Villages

Within Australia, approximately 2000 operational villages have been identified, and information on each has been compiled by numerous sources. My analysis only included villages that could be accurately matched with the Australian Bureau of Statistics (ABS) Census SA1 data (number of residents and number of dwellings (units)) in order to ensure data veracity.

Table 1 contains information on villages and units used in this analysis, 57% of identified operational villages were used. In Queensland, the greatest proportion of villages was used, with 71% of the identified total. Tasmania and South Australia had the smallest proportions used with 34% and 36% respectively. Northern Territory had only two villages identified and was not included in the analysis due to the small sample size.

ABS Census collectors were better at identifying larger villages than smaller ones, consequently a higher proportion of identified units were used in the analysis—77%. Similar to villages, Queensland had the greatest proportion of units used with 85%. South Australia and Tasmania had the smallest proportions used with 54% and 58% respectively. The total number of respondents differs for individual ABS Census questions resulting in differences between the total numbers of respondents for individual components.

ABS Census data

I utilised (subscription-based) ABS Census 2011 data for individual SA1 locations, and the ABS Place of Enumeration data series, which classifies dwelling location and includes villages.

The ABS Census records the total personal weekly income that an individual usually receives coupled with the number of people in the household (single person, two-person). This information was cross referenced with the Australian old age pension as at the census date (9 August, 2011). The standard weekly rate for a single person was $364.65 ($18,961.80 pa) and for a partnered person was $274.85 ($14,292.20 pa).

Recipients can earn some income before the age pension is affected; for a single person the weekly amount was $80 and for a partnered person was $71. Retirees who receive above this amount are still in a position to draw some age pension, which stops once the weekly income reaches $884.40 ($45,988.80 pa) for a single person and $676.40 ($35,172.80 pa) for a partnered person. The ABS Census compiles weekly income information into bands ranging from nil income to $2000 and above.

A limitation of this data is they do not indicate the source of this income, as the ABS records do not include level of assets, therefore differences in asset levels cannot be determined at this stage. The level of income can only be considered a proxy for the overall level of wealth.

TABLE 1: TOTAL NUMBER OF VILLAGES AND UNITS BY STATE

	NSW	VIC	QLD	SA	WA	TAS	NT	ACT	Australia
DMF villages identified	590	401	293	423	205	59	2	26	1,999
Villages used	389	230	208	154	128	20	0	19	1,148
% of total villages	66%	57%	71%	36%	62%	34%	0%	73%	57%
Units identified	36,109	26,052	25,128	16,328	13,576	1,920	100	1,575	120,788
Units used	28,739	20,781	21,471	8,868	10,659	1,113	0	1,284	92,915
% of total units	80%	80%	85%	54%	79%	58%	0%	82%	77%

TABLE 2: AGE AND GENDER OF VILLAGE RESIDENTS

AGE	NSW	VIC	QLD	SA	WA	TAS	ACT	Australia
Average Age	79.8	79.2	78.8	77.8	78.5	80.5	80.3	79.1
Median Age	81	80	80	78	79	82	81	80
Number	30,951	21,841	24,944	10,375	13,128	1,252	1,425	103,896

GENDER	NSW	VIC	QLD	SA	WA	TAS	ACT	Australia
Total	30,638	21,854	24,687	10,291	13,097	1,235	1,412	103,214
Males %	33.0%	33.2%	34.1%	35.0%	34.9%	30.4%	31.4%	33.7%
Females %	67.0%	66.8%	65.9%	65.0%	65.1%	69.6%	68.6%	66.3%

TABLE 3: WEEKLY PERSONAL INCOME FOR VILLAGE RESIDENTS AND OLDER AUSTRALIANS

SINGLE				PARTNERED			
Weekly Income	Village Residents	Older Australians	z Test	Weekly Income	Village Residents	Older Australians	Z-test
Nil-$399	50.3%	57.7%	-31.10	Nil-$299	40.4%	41.7%	-5.23
$400-$799	38.2%	31.0%	31.81	$300-$599	42.9%	37.6%	21.81
$800+	11.5%	11.2%	1.93	$600+	16.7%	20.7%	-19.75
n	45,549	673,808		n	41,249	1,396,267	

RESULTS

Age of residents

The average and median ages for residents in all villages are contained in Table 2. There is an approximate 3% variation on average ages between states. Tasmania had the oldest village residents, with an average age of 80.5 years and a median age of 82 years. South Australia had the youngest with an average of 77.8 years and a median age of 78.

This regional variation is partially contradicted by studies of older Australians, where South Australia had the highest proportion of people aged 65+, followed by Tasmania, then New South Wales and Victoria (Australian Institute of Health and Welfare, 2007). It appears factors that encourage retirement village living are different to overall ageing patterns. Moreover, while the differences between states are not large, they do indicate caution in drawing conclusions from studies undertaken in geographically constrained locations.

These resident ages are in keeping with recent reported metrics by operators — Stockland reported for their 62 villages an average age of 80.9 years in 2013 and 80.8 years in 2014. Aveo (formerly FKP Property Group) reported an average resident age in their 76 owned and operated villages of 82.5 years in 2014.

Weekly income

Table 3 contains information on the weekly income level for both single and two-person households of village residents and older Australians, excluding those living in larger households. 50.3% of single village residents in Australia receive less than $399 per week. The age pension as at the Census date was $364.65, therefore, while it cannot be assumed that all these residents are receiving the age pension, they are on income levels commensurate with this. 38.2% of single village residents receive between $400 and $799 per week, where the age pension cuts out (as at the Census date). Again the income source cannot be assumed for this group, however, it is commensurate with the part pension. In total, 88.5% of single village residents in Australia receive less than $799 per week, which is commensurate with the full or part pension.

A greater proportion of single older people, 57.7%, receive less than $399 per week compared to village residents. A smaller proportion of single older people (31.0%) receive between $400 and $799 per week compared to village residents. Relatively similar proportions of single older people and village residents receive more than $799 per week, 11.2% and 11.5% respectively.

TABLE 4: WEEKLY PERSONAL INCOME FOR SINGLE VILLAGE RESIDENTS AND OLDER AUSTRALIANS

	SINGLE VILLAGE RESIDENTS				SINGLE OLDER AUSTRALIANS			
	Nil-$399	$400-$799	$800+	n	Nil-$399	$400-$799	$800+	n
NSW	49.9%	37.5%	12.6%	14,407	58.1%	30.0%	11.9%	224,503
VIC	49.9%	38.1%	12.0%	9,756	58.0%	30.8%	11.2%	166,606
QLD	52.1%	38.3%	9.6%	10,397	57.0%	32.8%	10.2%	126,408
SA	53.6%	37.9%	8.4%	4,145	59.8%	31.1%	9.1%	63,552
WA	49.5%	39.2%	11.3%	5,535	57.3%	31.1%	11.6%	61,530
TAS	43.4%	45.7%	11.0%	602	59.7%	31.8%	8.5%	20,314
ACT	29.3%	37.6%	33.1%	707	38.6%	34.0%	27.3%	8,752
Australia	50.3%	38.2%	11.5%	45,549	57.7%	31.0%	11.2%	673,808

This pattern is similar for partnered village residents and older Australians; 40.4% of partnered village residents receive less than $299 per week, which is commensurate with the old age pension for a partnered individual. 42.9% of partnered village residents in Australia receive between $300 and $599 per week. This is slightly less than the level where the age pension for a partnered person cuts out.

In total 83.3% of partnered village residents receive less than $599 per week. While the income source cannot be assumed, the income levels are commensurate with the full and part age pension for partnered persons. The difference between partnered village residents and older Australians was less marked with 41.7% of older Australians in this group receiving less than $299 per week compared to 40% of village residents. Again a smaller proportion of partnered older Australians receive an income commensurate with the part pension, 37%.6, compared to 42.9% of village residents.

For partnered village residents, a greater proportion (16.7 %) receive more than the part pension ($600 per week) when compared to single village residents, 11.5% ($800 per week). For older Australians, this difference is more marked with 20.7% of partnered older people receiving this amount compared to 11.3% of single village residents.

Australia is noted for regional variations and the analysis showed differences between states and territories. Table 4 contains income information for single village residents and older Australians for states and territories. In each jurisdiction a greater proportion of single older people receive income of up to $399 per week compared to village residents.

Some difference in income levels was noted between jurisdictions, the significant outlier is the ACT where 33.1% of single village residents and 27.3% of older people receive more than $800 per week. This is more than double the proportions for older Australians. Qld and SA were noted as having the highest proportions of village residents receiving below $399 per week, this observation did not hold true for single older people in those states. SA and Tas had the highest proportions of older people receiving less than $399 per week.

Table 5 contains income information for partnered village residents and older Australians for states and territories. Again, a significant outlier is the ACT with 43.9% of partnered village residents receiving more than $600 per week, whereas 16.7% of Australian partnered village residents receive this amount. Single and

TABLE 5: WEEKLY PERSONAL INCOME FOR PARTNERED VILLAGE RESIDENTS AND OLDER AUSTRALIANS

	PARTNERED VILLAGE RESIDENTS				PARTNERED OLDER AUSTRALIANS			
	Nil-$299	$300-$599	$600+	n	Nil-$299	$300-$599	$600+	n
NSW	37.6%	43.5%	19.0%	11,250	41.5%	37.3%	21.2%	459,167
VIC	38.9%	43.5%	17.6%	8,702	42.4%	37.3%	20.3%	343,375
QLD	43.4%	42.6%	14.0%	10,250	41.4%	39.0%	19.6%	275,523
SA	44.2%	42.8%	13.0%	4,595	42.9%	38.7%	18.4%	127,078
WA	41.8%	42.1%	16.1%	5,460	41.3%	36.5%	22.2%	130,333
TAS	36.0%	44.6%	19.3%	455	44.0%	38.3%	17.6%	38,368
ACT	22.7%	33.3%	43.9%	537	27.2%	30.0%	42.8%	18,519
Australia	40.4%	42.9%	16.7%	41,249	41.7%	37.6%	20.7%	1,396,267

partnered older people in this territory receive higher incomes when compared with the rest of Australia. The numbers for village residents (single n=707, partnered n=537) were the second smallest before Tasmania, and the numbers for older people overall (single n=8,752, partnered n=18,519) were the smallest. These lower numbers may have some implications of these findings.

This difference for the ACT is consistent for both single and partnered village residents and older Australians. Other consistent differences between states included a higher proportion of SA village residents receiving weekly income in the lowest tranche. The lack of other consistent patterns may indicate that differences between localities occur more at the regional/municipal level rather than at the state/territory level.

The Z-test indicates that while it can be generalised that village residents and older Australians are statistically different, there are indications of similarity. But it appears difficult to make sweeping conclusions about residents in villages and older Australians at the state and territory level.

These findings are in line with a 2013 village survey where 44% of respondents stated that they received the full age pension and 38% received the part pension (McCrindle & Madden, 2013). This equates to 82% of village residents being either full or part pensioners. In a 1998 study of villages in South East Queensland, it was reported of residents that "just under two thirds were in receipt of Social Security or other government benefits".

Other sources of income, from investments and superannuation, were also received (Manicaros & Stimson, 1999). A later survey in 2000–2001 of village residents across Australia noted that a total of 76.8% of respondents listed either a full or partial social security benefit or pension (age/war veterans) as a source of income (Stimson, et al., 2002). This agrees with government information compiled on age pension recipients.

Overall, fewer village residents (single and partnered) receive income in line with the full pension compared to older Australians, and a greater proportion of village residents receive income in line with the part pension compared to older Australians. This may indicate that the differences between village dwelling residents and older Australians are subtle and may be driven by other factors than choice of housing. The numbers of older people includes those living in regional and remote locations where there are often few retirement villages. This would require comparing the income levels of village residents with older people in the region/municipality. Such a comparison could provide a more meaningful description of the differences between these groups.

CONCLUSION

Given that retirement villages are regulated at the state level, any policy input requires an understanding

of the users of this form of accommodation. Moreover, financial analysis of portfolios of villages needs to incorporate regional variations.

While the difference between states is not large (3%) this may be an indication of varying ageing outcomes across Australia. Valuation and investment analysis is based on anticipated resident duration, which is dependent on age. Therefore the three-year variation in average age between states has the potential to impact upon investment returns.

Village residents are not wealthy, however a more appropriate term could be "less poor". Approximately 50% of single village residents in Australia receive less than $399 per week and approximately 40% of partnered village residents receive less than $299 per week. These amounts are commensurate with the full age pension. Approximately 88% of single village residents receive less than $799 per week and approximately 82% of partnered village residents receive less than $599 per week. These amounts are slightly less than the level where the age pension ceases.

The older Australians group includes those living in remote and disadvantaged locations where there are no villages. A smaller proportion of single village residents receive less than $399 per week compared to single older people living in the general community. This suggests that a greater proportion of community-based older people rely solely on the age pension or other entitlements when compared to village residents. A greater proportion of single village residents receive between $400 and $799 per week compared to single older people, suggesting a greater proportion of village residents are part pensioners.

As the majority of village residents are receiving income commensurate with the full and part pension, and can be assumed that of this group the majority will be receiving income from that source. This has significance, particularly for ongoing monthly fees which are paid by residents. Residents may experience difficulties in paying increased fees that are greater than the age pension indexation, and this is something that operators need to consider.

The smaller proportion of village residents receiving income commensurate with the full pension compared to those living in the community could indicate that disadvantaged older people are less likely to be catered for through village living. This group may well be receiving housing through state governments and community housing providers, and further research would be required to determine this.

The small proportion of village residents who could be described as self-funded retirees is of significance particularly when developers and operators of lifestyle villages target this group. The overall number of potential residents into a lifestyle retirement village appears to be smaller than promoters of this asset class predicted up to 2007.

The significant outlier in income levels is the ACT where approximately 33% of single village residents receive more than $800 per week and approximately 44% of partnered village residents receive more than $600 per week. These amounts are commensurate with a self-funded retiree, however without knowing the source of this income, this cannot be assumed.

Anecdotally, the reason given for this is the greater proportion of former public servants who may have access to defined benefit superannuation schemes. The difference in wealth levels has implications as analysis and studies of villages in this territory may have limited applicability to other parts of Australia. Further study at a regional level across Australia may indicate other local outliers. ■

This article has been reduced for publication. Visit http://bit.ly/1TGuQuS for the original peer reviewed paper.

FINANCE