



PRINCIPAL
HEALTH & WELLBEING SURVEY

The Australian Principal Occupational Health, Safety and Wellbeing Survey

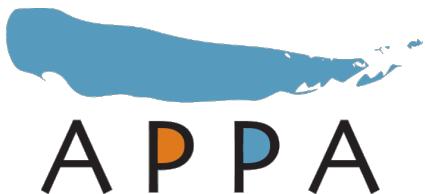
Executive Summary

2016 Data

Philip Riley



**Teachers
Health Fund**



**MEMBERS OWN
HEALTH FUND**

Australian Primary
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Produced and Published by:

Institute for Positive Psychology and Education
Faculty of Education and Arts

Australian Catholic University
Fitzroy, Victoria, Australia, 3605
Printed February 2017

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Acknowledgements

The major change to the project in 2016 was the awarding of an Australian Research Council Linkage Grant (LP160101056) in conjunction with our industry partners who are also still substantially contributing cash and in-kind support to the project (Teachers Health Fund, Catholic Church Insurance, The Australian Primary Principals Association, The New South Wales Secondary Principals Council, and the Association of Heads of Independent Schools of Australia). This grant will enable the research to continue for three years. The whole team is very grateful for this wonderful support.

Projects on this scale do not happen without a number of dedicated people's support. I would like to firstly thank the research team for their skill, dedication and track record that were fundamental to securing the ARC grant. I am equally indebted to the *Teachers Health Fund* who became the major sponsor of the research in 2014. Without the strong support of CEO Bradley Joyce and National Partnerships Manager, Jane Stower, these reports would not have been possible. I would also like to thank the National Principal Organisations and their affiliates for co-funding the project along with in-kind resources, and a determination to see the project run. They have also provided the essential function of facilitated access to the survey for the principals and deputy/assistant principals in their jurisdictions. Special thanks go to project manager, research assistant and PhD student, Aimee Maxwell who works tirelessly to tight deadlines time and again. Aimee completed her thesis in 2016 and we await the outcome of the examination.

In 2016 as a result of the ARC grant we now have a dedicated research team of world-renowned experts in the field, and will include two new PhD candidates from 2017. The developments in matrix sampling methods and cutting edge statistical modelling will be a huge enhancement to the project going forward. For Web development and report construction thanks go to Jason Cleeland. A big thank you also goes to the members of the project consultative committee, who each contributed many hours of thought, travel for meetings and invaluable questions and discussion. It is a much better product for their efforts. Finally, I am indebted to Australia's school principals who give up their valuable time each year to participate in the survey. The research rests on their good will and generosity.

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Disclaimer: The recommendations in the report represent the opinion of the author alone and are not necessarily endorsed by the Consultative Committee.

Executive Summary & Recommendations

Background

The survey has run nationally every year since 2011 in response to growing concern about principals' occupational health, safety and wellbeing. Since the project began, approximately 50% of Australia's 10,000 principals have taken part. Many have completed multiple surveys. The full background information is available in both short and long form at: www.principalhealth.org/au/reports.

Project Aims

The aim of this research project is to conduct a longitudinal study monitoring school principals and deputy/assistant principals' health and wellbeing annually. Principals and deputy/assistant principals' health and wellbeing in differing school types, levels and size will be monitored along with lifestyle choices such as exercise and diet and the professional and personal social support networks available to individuals. The turnover of principals and deputy/assistant principals within schools will allow investigations of moderator effects, such as years of experience prior to taking up the role. The longitudinal study will allow the mapping of health outcomes on each of these dimensions over time.

Participant Care

Each survey participant received a comprehensive, individual report from his/her own survey responses. The report is an interactive secure webpage allowing participants to compare their scores on 45 separate dimensions with the general population, other principals and themselves over time. The other form of feedback is a red flag indicator that has been programmed to be automatically triggered by the survey system if a participant reports either consideration of self-harm in the week preceding completing the survey, or if their combined answers to the quality of life questions add to a total score that falls two Standard Deviations below the mean score for principals. A 'red flag' email is then generated and sent to the participant outlining his or her individual result and includes a list of support services available in the local area. This is done anonymously so participants can choose what course of action to take.

Chief Investigator

Associate Professor Philip Riley, from Australian Catholic University, a registered psychologist with the Australian Health Practitioner Regulation Agency, oversaw the project. He is a former school principal and is also the Chief Investigator for *The Irish Principals and Deputy Principals Health and Wellbeing Survey*. The Irish survey was conducted using the same protocols as the Australian survey, which has run annually in Australia since 2011. The reports for this survey are available at <http://www.principalhealth.org/ie/reports.php>.

The Survey

The survey captured three types of information drawn from existing robust and widely used instruments. First, comprehensive school demographic items drawn from the *Trends in International Mathematics and Science Study* (TIMSS) (Williams, et al., 2007), *Program for International Student Assessment* (PISA) (Thomson, et al., 2011), The MySchool Website (ACARA) and *International Confederation of Principals* surveys were used to capture differences in occupational health and safety (OH&S) associated with the diversity of school settings and types. Second, personal demographic and historical information was captured. Third, principals and deputy/assistant principals' quality of life and psychosocial coping were investigated, by employing two widely used measures, the *Assessment of Quality of Life – 8D* (AQoL-8D: Richardson, et al., 2009; Richardson, Iezzi & Maxwell, 2014), *The Copenhagen PsychoSocial Coping Scale-II* (COPSOQ-II: Jan Hyld

Pejtersen, et al., 2010). This year we also measured individual levels of *passion* (its presence, or absence, and harmonious vs obsessional) as it links to both job demands and resources (Trepanier, Fernet, Austin, Forest & Vallerand, 2014; Vallerand, 2015). Alcohol use was measured using *The Alcohol Use Disorders Identification Test (AUDIT)*: Babour et al., 2001), developed for the World Health Organization. The combination of items from these instruments allows opportunities for comprehensive analysis of variation in both OH&S and wellbeing as a function of school type, sector differences and the personal attributes of the principals themselves.

In 2016 two new scales were added to the survey instrument (The Positive and Negative Affect Scale (PANAS: Watson, Clark, and Tellegen, 1988), and the short form of the Basic Psychological Needs at Work Scale (BPNWS: Deci & Ryan, 2004; Van den Broeck, Ferris, Chang, & Rosen, 2016).

Innovation

The principals and deputy/assistant principals who complete the survey receive interactive feedback through a dedicated secure website, affording them instant health and wellbeing checkups tailored to their specific work context. In future iterations of the survey it is hoped to incorporate feedback to individuals using like-group comparisons. The instant benefit to individuals has increased both participation rates and the veracity of the information they submit.

Research Questions

The specific research questions guiding the initial survey were:

Can recognizable occupational health, safety and wellbeing subgroups of principals and deputy/assistant principals be identified through the survey? These groups may be inferred from a number of criteria including: Sector; Location (Urban, Suburban, Large Town, Rural, Remote); Type (Primary, Secondary, Special, Early Childhood,); Background (Family of Origin, School Education); Person Factors (Gender, Family of Origin and Procreation, Social Support, Educational Level); Role Factors (Hours worked, number and type of teachers, students and parents, resources, professional support); Occupational Constraints.

- Do(es) any group(s) thrive in the role?
- Do(es) any group(s) only just survive in the role?
- Do(es) any group(s) show signs of adverse health, safety, and wellbeing outcomes?
- Do(es) any factors affect these group(s), and in what ways?
- Are changes to educational policy or policy implementation suggested by the results?

Impact

The impact of the research in the wider community is highlighted by the mainstream media coverage: >1,200 TV, Radio, Print and on-line reports appearing between July 2013 – December 2014, reaching an audience of ~10,000,000 people (~50% of the Australian population). The “real world impact” is evidenced by changes to political parties’ policies. Better support for school principals became Green Party policy in 2013, and was named first priority by incoming Victorian education minister Merlino in December 2014. The research has been debated in the Tasmanian parliament (28.5.2015) and the WA Parliament (23.10.2015), a significant real world impact. In 2016 under the new enterprise bargaining agreement for South Australian principals the SA government allocated .05 FTE to be spent on principal health and wellbeing, at the principal’s discretion! This is a significant step in both acknowledging the problems that have been identified in the research, and directing resources toward tackling it. The autonomy afforded to principals in the freedom to identify the most efficacious way to allocate this valuable resource is a strong vote of confidence in SA principals by their employer.

Summary of impact

Year-on-year increase in participation (2011–2016) 2049–5247 participants.

Individual feedback has been welcomed and prompted some to positive behavioural change (e.g., not letting work interfere so much with family life).

The increase in media coverage has been spectacular (2013: 160 unique insertions reaching ~2.1 million Australians. 2014: >1,200 insertions reaching >10 million, 2015 725 media insertions reaching 9.1 million Australians), raising awareness of the issues and alerting politicians to the importance of the issues to the community. In 2014 and 2015 there were over 50 minutes of prime time TV, and many hours of talk back radio focused on the report.

There is growing interest in replicating the research from a number of jurisdictions. Currently the survey has run for the second year in Ireland (www.principalhealth.org/ie) and for the first time in New Zealand (www.principalhealth.org/nz). There is particularly strong interest from the International Confederation of Principals in conducting the research in multiple countries. The Ontario Principals Council has applied for funding to conduct the research in Canada, and most recently the US Elementary and Secondary Principals' Associations have requested the research extend to their 95,000 members. These studies will help enormously with the analysis phase for the Australian survey. We will be able to disentangle cultural and cross cultural issues from “the human condition” variables, and compare education policies and policy enactment in various settings to determine the best, evidence based approaches to address the issues that arise both from within and across contexts.

Perhaps the most important direct impact has been the reaction by the Teachers Health Fund. Since the release of the 2014 report they have reduced waiting time for new members wishing to access psychological services from 12 to 2 months and added rebates to tele-psychological services, making distance from capital cities less of a burden.

Australia's School Principals: A 6-year Longitudinal Snapshot

- Response Rate
 - a. Over the 6-years of the survey to date, responses have been collected from 5247 school leaders. This represents approximately ~50% of all principals in the country with 20-28% completing the survey each year.
 - b. It is impossible to calculate the response rate of assistants/deputies. They are not in all schools, and many schools have more than one.
 - c. Raw numbers suggest a good proportion of those eligible to take part did.
- Participants
 - a. 68.4% Principals; 27.6% Deputies/Assistants; 0.3%Teaching Principals; 0.8% Acting Principals; 0.7% Directors of Early Childhood settings; 2.2% not currently principals
 - b. 59% Primary; 26.1% Secondary; 13.8% Kinder/Primary – Year12; 1% Early Childhood
 - c. 58% Female; 42% Male
 - d. Average age 54.58 years: Age range 25 – 80 years
 - e. 73.7% Government; 14.7% Catholic; 11.5% Independent
- State

Table 1. Participant numbers (N) and percentage proportion of the total

<i>State</i>	<i>N</i>	<i>% of Sample</i>
NT	156	3.1
NSW	1080	21.2
VIC	1535	30.2
QLD	921	18.1
SA	502	9.9
WA	651	12.8
TAS	128	2.5
ACT	109	2.1
Overseas	2	0

- Geolocation figures will be provided again once we receive that data from ACARA
- Experience
 - a. The average level of experience has dropped during the life of the survey as many principals reach retirement. Years in current role have dropped from 5.2 to 3.8. Years in leadership have dropped from 12.4 to 12.2 years, and time in teaching before taking up the leadership role has dropped from 12.4 to 11.5.
- Average Working Hours
 - a. Average working hours have remained stable over the 6 years of the survey. They remain too high for a healthy lifestyle to be maintained.
 - b. On average, 55% of principals worked upwards of 51-56 hours per week during term with ~27% working upwards of 61-65 hours per week.
 - c. During school holidays, ~22% work upwards of 25 hours per week.

The US Department of Health and Human Services found the costs of working too much include:

 - i. Working >10 hours a day led to a 60% increased risk of cardiovascular disease
 - ii. 10% of those working 50–60 hours a week report relationship problems, and 30% for those working more than 60 hours.
 - iii. Working >40 hours per week is associated with
 - 1. increased alcohol and tobacco consumption
 - 2. unhealthy weight gain in men
 - 3. depression in women
 - iv. Little productive work occurs after 50 hours per week.

- v. In white collar jobs, productivity declines by as much as 25% when workers put in 60 hours or more.
 - vi. Working >60 hours per week led to 23% higher injury hazard rate (Caruso, Hitchcock, Dick, Russo, & Schmit, 2004).
- Salary
 - a. Annual salaries ranged from <\$50,000 - >\$160,000 per annum. Average salary has risen from ~\$108,000 -\$125,000 per annum during the past 6 years with a disproportionate number of women consistently in lower paid roles during the last 6 years. On average women earn ~\$5,000 less per annum than their male colleagues.
- Personal achievement and values
 - a. In 2016 two new scales were added to the survey instrument (The Positive and Negative Affect Scale (PANAS: Watson, Clark, and Tellegen, 1988), and the short form of the Basic Psychological Needs at Work Scale (BPNWS: Deci & Ryan, 2004; Van den Broeck, Ferris, Chang, & Rosen, 2016). Participants reported significantly higher satisfaction levels for autonomy support, relatedness to others and competency than the general population on the BPNWS and were located on the 77th percentile for Positive Affect and 74th percentile on the Negative Affect subscales of the PANAS.
 - b. The importance of personal achievement has increased over the life of the survey from 3.95 – 4.33/5.
 - c. The importance of personal relationships with family and friends has remained stable (4.7/5) and clearly the most important value for the participants of all listed.
 - d. Participants report significantly higher job satisfaction than the general population.
- Personal supports and challenges
 - a. ~86% were in a partner relationship in 2011. This fell to 83.5% in 2016. However,
 - i. The numbers of principals who report their partner as “their greatest source of support” dropped from 84% in 2011 to 71% in 2015 but rebounded to 81% in 2016.
 - ii. Most sources of support rebounded in 2016 after declining in 2015 (see Figure 1).
 - iii. The number of partners who work in education has also dropped from 41.6% in 2011 to 39% in 2016.
 - b. Approximately half the participants have children living at home (51-56%).
 - c. The number of participants who have a family member with a long-term health condition has increased from ~25% in 2011 to ~ 32% in 2016, with serious impact on the family also rising from 28-31%.
 - d. ~41% volunteer their time for community support outside of their role, and a slightly higher number are active members of formal community or sporting associations.
 - e. ~ Regular spiritual practice has fluctuated between 26-35% of participants.

Sources of Support 2011-2016

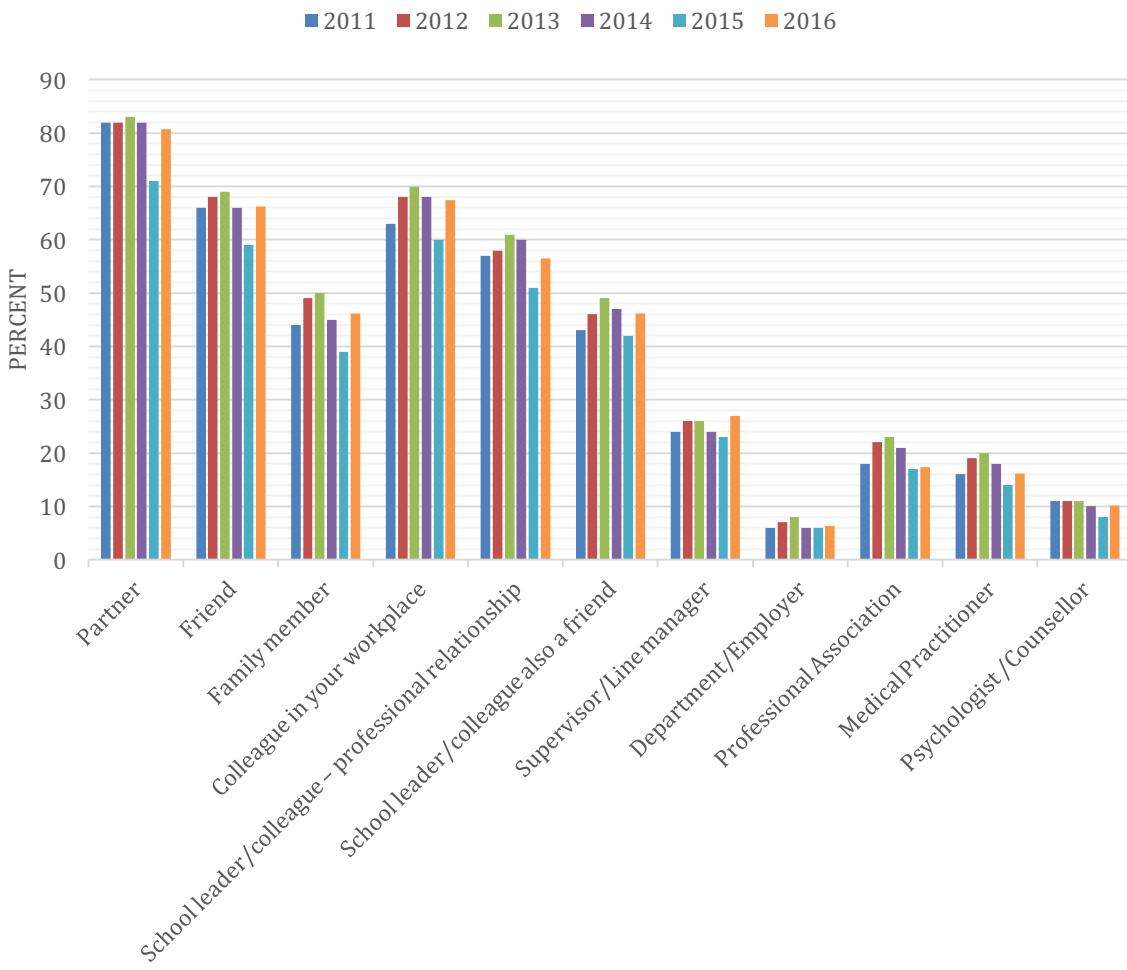


Figure 1. Sources of Support 2011-2016

- Personal background
 - a. Participants come from stable backgrounds ~84-88% were living with their mother and father at age 14.
 - b. Just under 40% of participants now have a Masters degree or above, mostly in formal leadership courses, up from 30% in 2011. In 2011 ~75% of those completing formal leadership courses believed the course helped them to better cope with the demands of the job. This has declined to 60% in 2016.
- Health
 - a. There are large differences in self-reported health maintenance that have remained relatively stable across the 6-year period: levels of exercise (Range 1-10, Mean ~5.5); diet (Range 1-10, Mean ~6); and, weight control (Range 1-10, Mean ~5.5).
 - b. In 2011 ~49% of participants were taking prescription medication for a diagnosed condition. This had dropped to ~40% by 2016
 - c. Most maintain a healthy alcohol intake, and do not use it or prescription medication to manage stress.
 - d. Self-rated health, a single item in the survey, has been shown in numerous studies to accurately predict long term health outcomes, including mortality, cardiovascular diseases, hospitalizations, use of medicine, absence, and early retirement (Idler, &

Benyamin, 1997). Participants' self-ratings have fallen slightly during the survey period and remain at ~10% below the population average.

- e. Principals experience high levels of job demands (1.5 times the general population) emotional demands (1.7 times) and emotional labour (1.7 times) being the highest demands when compared to the general population. This is correlated with higher levels of burnout (1.6 times higher), stress symptoms (1.7 times higher), difficulty sleeping (2.2 times higher), cognitive stress (1.5 times higher), somatic symptoms (1.3 times higher), and, depressive symptoms (1.3 times higher).
- f. 'Red flag' responses (thoughts of self-harm and/or global quality of life scores >2 Standard Deviations below the mean score for principals) has remained relatively stable at 9-10% of respondents. This result is a serious concern for the profession as a whole.
- Sources of Stress
 - a. The two greatest sources of stress that have remained consistently high (~8/10) over the length of the survey have been
 - i. Sheer Quantity of Work, and
 - ii. Lack of Time to Focus on Teaching and Learning
 - b. The worrying trend over time has been the increase in stress caused by
 - i. Mental Health Issues of Students (5.5-6.5/10),
 - ii. Mental Health Issues of Staff (5.2-6/10: see Figure 2).
- Offensive Behaviour
 - a. Principals and deputy/assistant principals experience far higher prevalence of offensive behaviour at work each year than the general population.
 - b. The prevalence rate for Threats of Violence is extremely high (in 2011, 38% of participants had been threatened. This rose to 44% by 2016; close to 1 in 2 principals receiving a threat).
 - c. Actual Physical Violence prevalence has risen from ~27% in 2011 to ~34% in 2016; 1 in 3 principals (now 8.6 times the rate of the general population, up from 7 times in 2011).
 - d. Adult-adult bullying has risen from ~34-36% (4.1-4.3 times higher than the general population); threats of violence (increased from 4.9-5.3 times higher).
 - e. The prevalence rates vary from state to state with concerning upward trends reported for NSW, NT, Tasmania and the ACT (see Figures 2-5). Both South Australia and Queensland have gone against this trend, and seen a fall in offensive behaviour during the survey period.
- Wellbeing
 - a. Despite having many predictive attributes for high scores on health and wellbeing (COPSOQ-II; Personal Wellbeing Index) and quality of life (Assessment of Quality of Life-8D) measures, collectively principals and deputy/assistant principals score below the general population average.
 - b. All positive measures (self-rated health; happiness; mental health; coping; relationships; self-worth; personal wellbeing index) are lower than the population average.
 - c. All negative measures are higher than the general population (burnout-1.6 times the population; stress-1.7 times; sleeping troubles-2.2 times; depressive symptoms-1.3 times; somatic stress symptoms-1.3 times; cognitive stress symptoms-1.6 times). The differences are detailed in the full report.

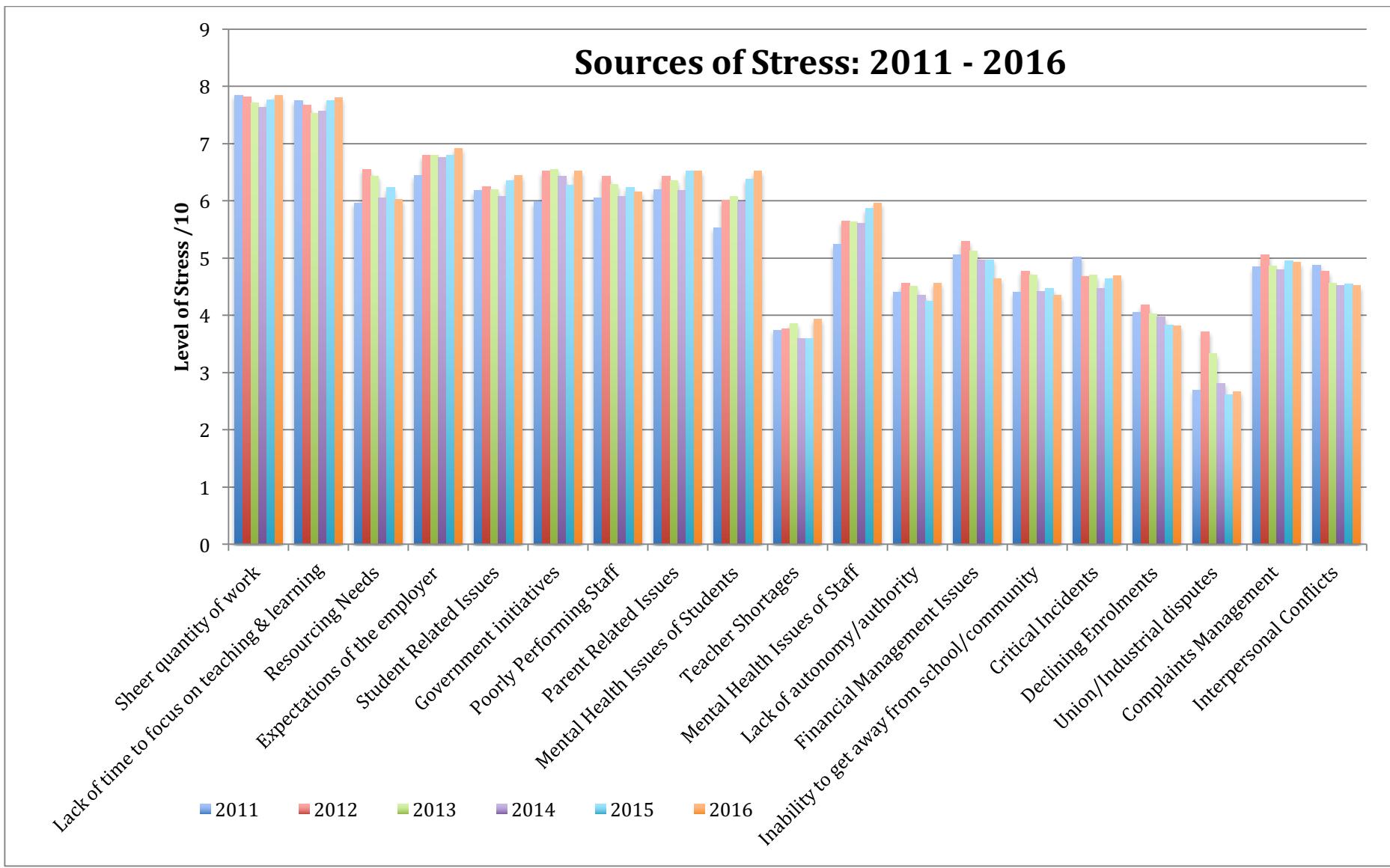


Figure 2. Sources of Stress 2011-2016.

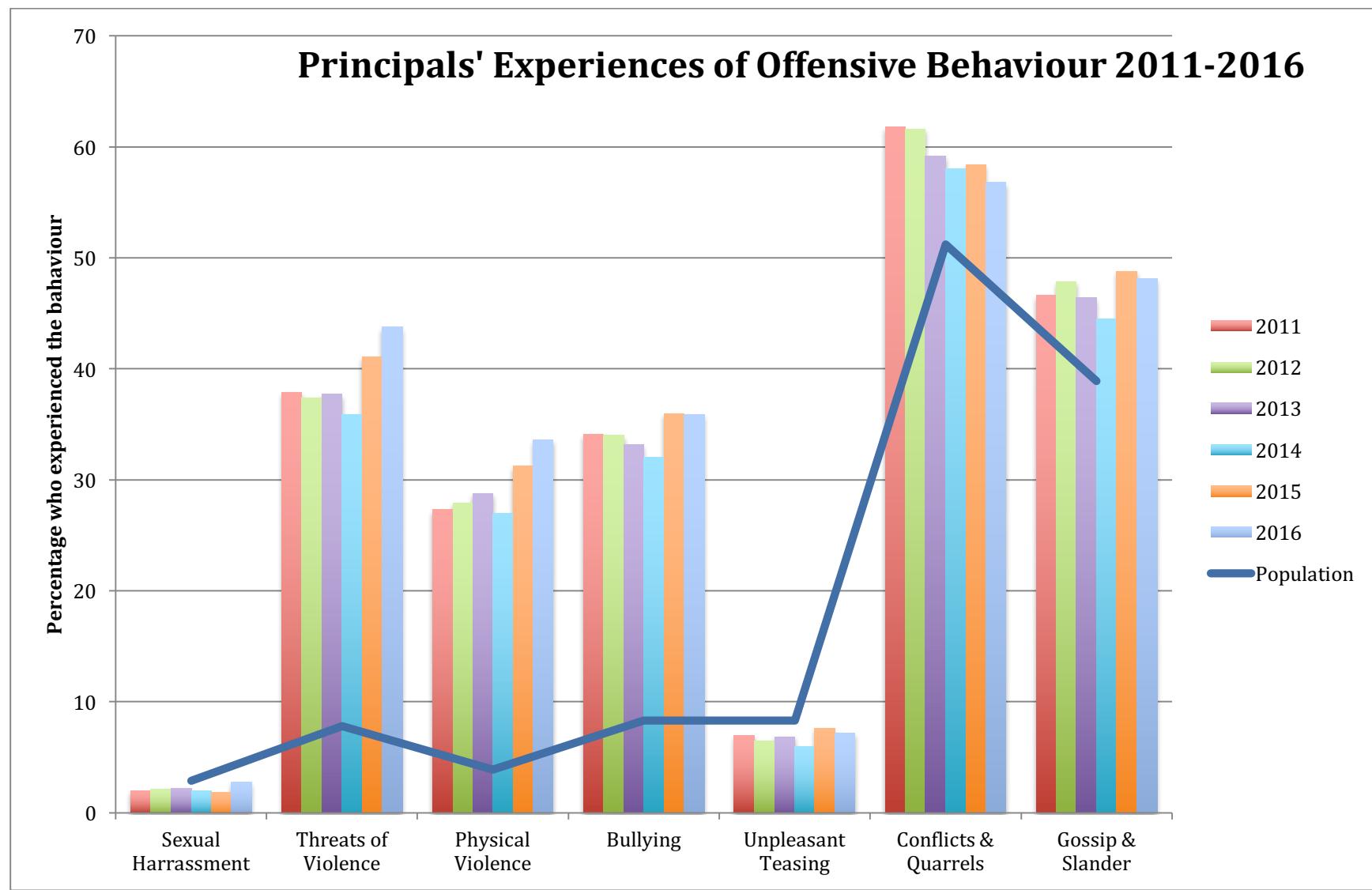


Figure 3. Participants' experiences of offensive behaviour at the workplace

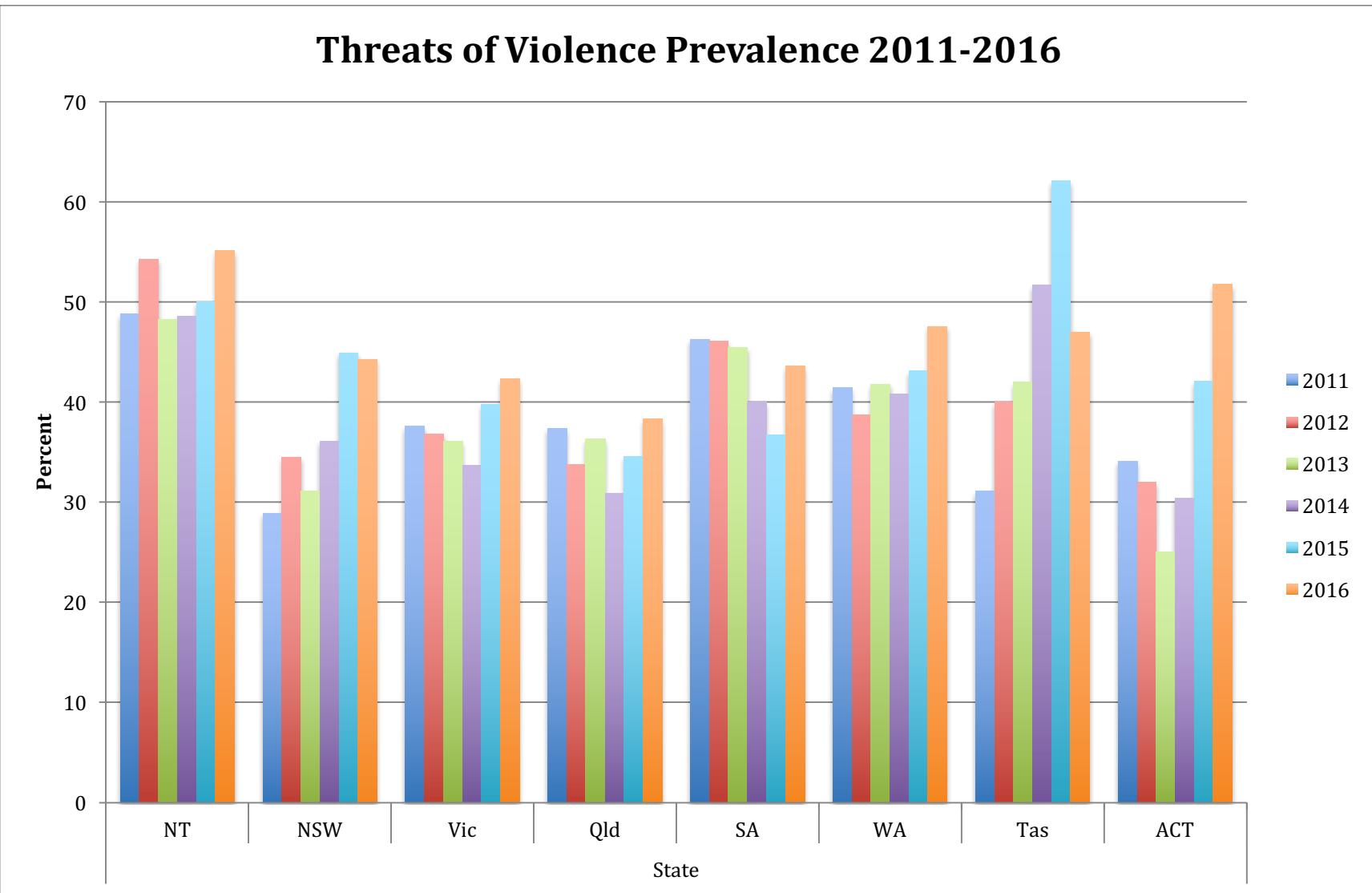


Figure 4. Threats of Violence Prevalence 2011-2016

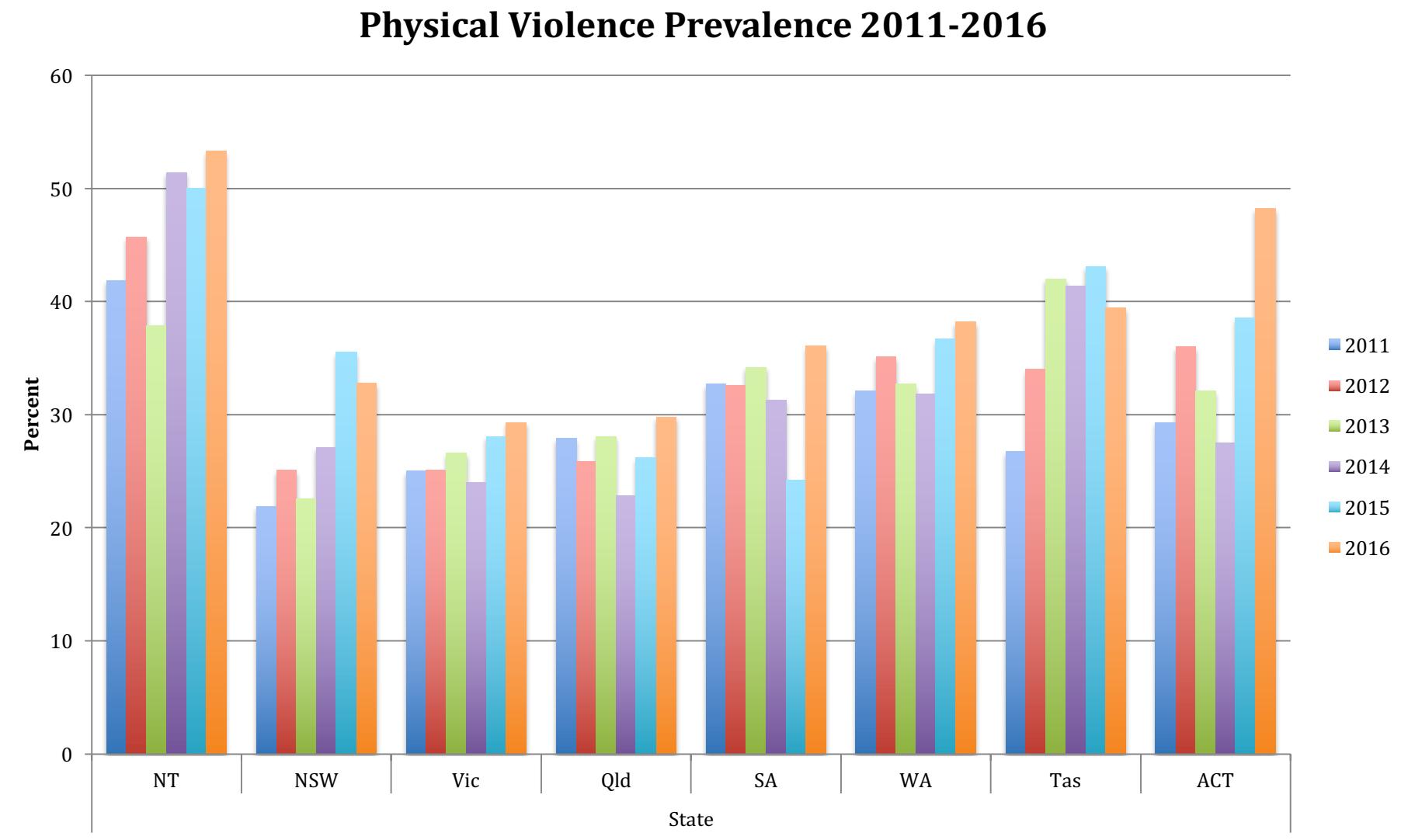


Figure 5. Physical Violence Prevalence 2011-2016

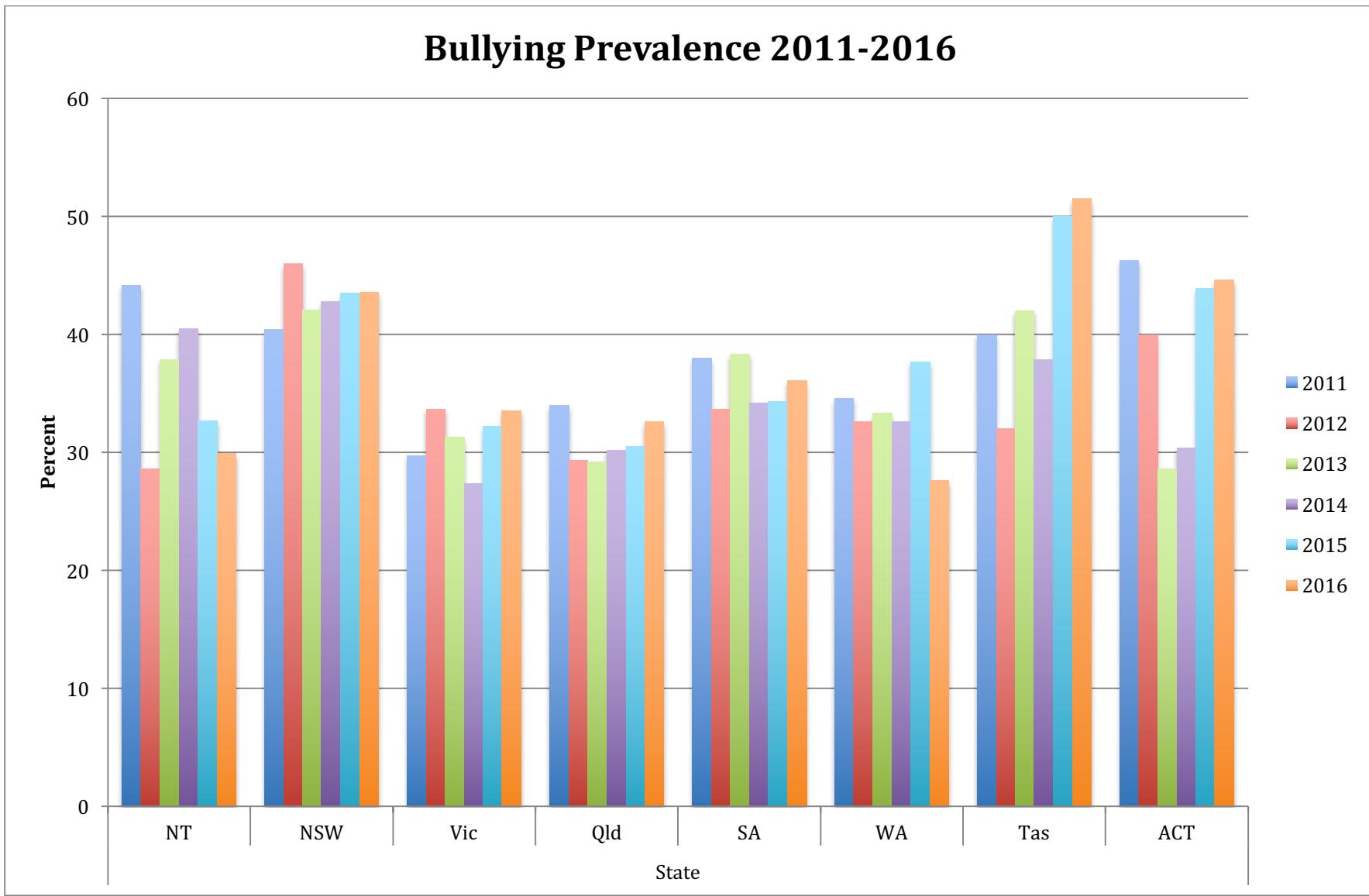


Figure 6. Bullying Prevalence 2011-2016

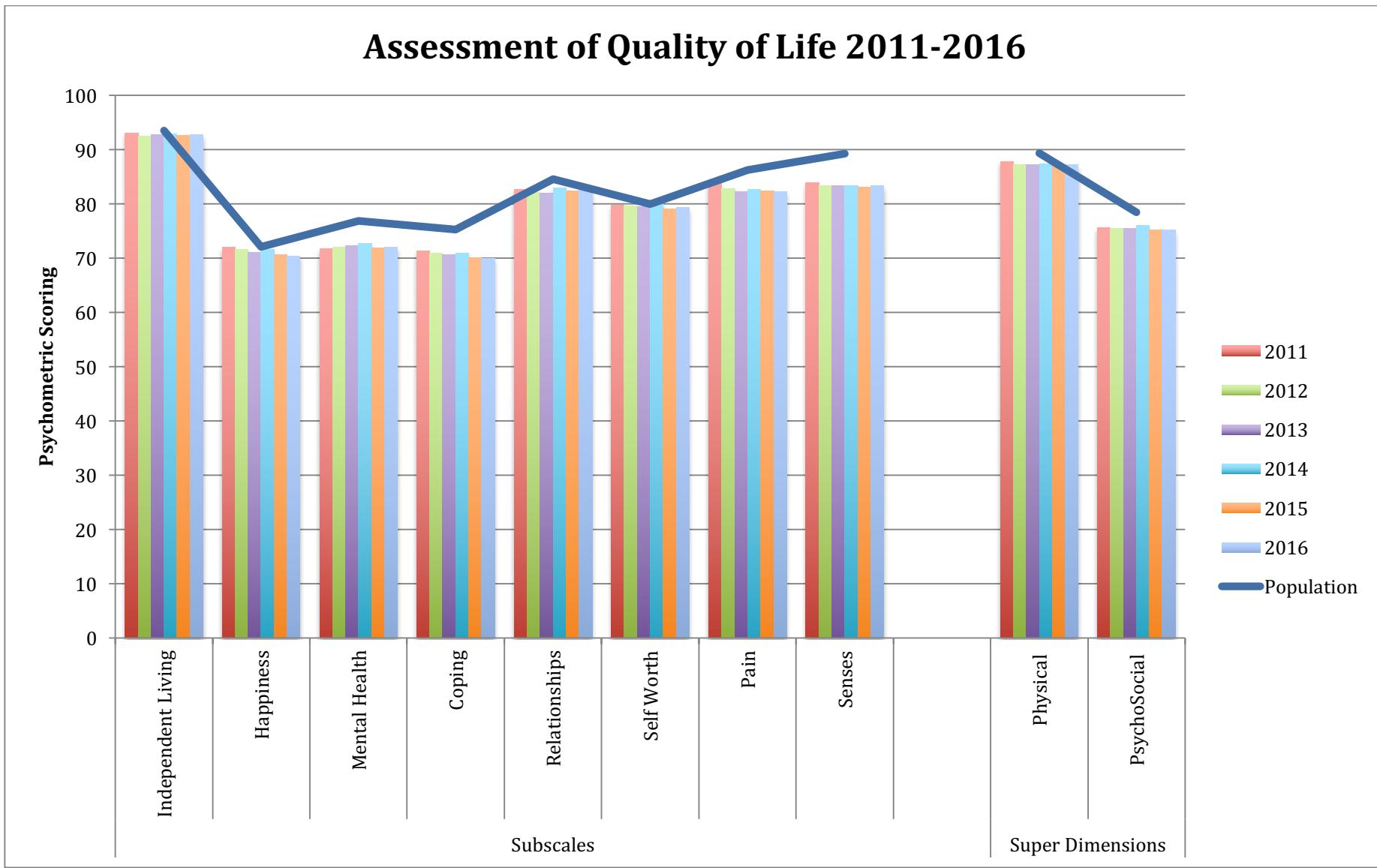


Figure 7. Assessment of Quality of Life (AQoL-8D) subscale and super dimension scores

- Social Capital

Social capital is a constructed meta-scale from three COPSOQ-II scales: Trust in Management (also known as Vertical Trust), Social Community at Work (also known as Horizontal Trust) and Justice. Together they represent the level of Social Capital in each school as perceived by the principal or deputy. The results for this measure are both positive and negative. There is significant variation in social capital around the country. The average score for all schools is reported for each year in Table 2.

- Participants reporting high levels of social capital also report lower levels of job demands and increased levels of job resources. This is a significant finding consistent with research in other industries and points to how we can find solutions to the current decrements in principal health. However, it is concerning that the overall levels of social capital have diminished over the last five years.

Table 2. Social Capital Values 2011-2016

	Mean	SD	Min	Max
2011	76.23	12.73	7.64	100
2012	75.48	13.60	2.78	100
2013	75.68	13.28	9.72	100
2014	72.73	14.21	5.56	100
2015	73.78	13.44	13.89	100
2016	73.31	14.30	0	100

- The spread of results show that there are many schools doing well on this important measure of school health, with a principal who is confident, relatively autonomous and satisfied with the role. However there are also too many schools with very low levels of social capital.
- Social capital is unrelated to the school ICSEA score¹. This information needs much further investigation, which will be carried out in the near future and further explication of this aspect of social capital is likely to prove fruitful.
- Social capital is correlated with increased perceptions of job satisfaction, general health, confidence, autonomy and harmonious passion.
- Social capital is also correlated with decreased perceptions of quantitative and emotional demands, work-family conflict, stress, burnout, cognitive and somatic stress symptoms, sleeping difficulties and depressive symptoms.

- Passion

- The dualistic model of passion scale was added to the survey in 2015. Vallerand (2015) proposes two distinct types of passion:
 - Harmonious Passion* – a strong desire to freely engage in activity resulting from autonomous internalization of the passion into the person's identity; willingly accepted as important.
 - Obsessive Passion* (OP) – an uncontrollable urge to partake in the passion resulting from controlled internalization into one's identity. This process originates from intrapersonal and/or interpersonal pressure because particular contingencies are attached to the passion, such as feelings of social acceptance, and can overwhelm other aspects of the person's life.

¹ The Index of Community Socio-Educational Advantage (ICSEA) was created by the Australian Curriculum, Assessment and Reporting Authority (ACARA) specifically to enable fair comparisons of National Assessment Program – Literacy and Numeracy (NAPLAN) test achievement by students in schools across Australia (http://www.acara.edu.au/verve/_resources/About_icsea_2014.pdf).

- b. Most principals describe themselves as passionate educators, so it will be crucial to determine whether this represents risk or protection as related to school setting. Indeed, research in education settings in other countries (Trépanier, Fernet, Austin, Forest & Vallerand, 2014) has shown that increasing demands in the absence of sufficient resources leads to obsessive passion, which, in turn, leads to burnout and undermines work engagement. Conversely, resources in the absence of demands, facilitates harmonious passion, which, in turn, prevents burnout and facilitates work engagement. The results for this measure in 2015 are in line with previous studies and significantly correlated both positively and negatively with the Job Demands and Resources.
- c. ~90% of participants report being passionate ($M=5.46$, $SD=0.93$). Harmonious passion ($M=4.1$, $SD=1.16$) was more common than Obsessive passion ($M=2.72$, $SD=1.07$).
- d. The combination of social capital and passion may provide significant new areas for combating the increasing demands of the role. Examples of the relationships between job demands, outcomes, social capital and the dualistic model of passion are represented in Figures 4-11 below.

Summary

Job Demands On average, Quantitative Demands, Work Pace, Emotional Demands, Having to Hide Emotions, Average Working Hours during Term, and Work-family Conflict have remained very high or increased slightly during the last 5 years. Sources of stress that remained stable during the period were: Sheer Quantity of Work; Not Enough Time for Teaching and Learning; and Expectations of the Employer. Sources of stress that increased were: Resourcing Needs, Student and Parent related issues. The largest increases in stress were reported for Mental Health Issues of both staff and students. Stress diminished for Union/Industrial Disputes, Critical Incidents, Financial Management Issues, and Lack of Autonomy.

Job Resources such as formal leadership education, job satisfaction, degree to which individuals can influence their work, possibilities for development, variation of work tasks, meaning of work, commitment to the workplace and level of self-efficacy have all increased. These resources help individuals cope with increased demands. However, the job demands and Work-Family Conflict measure indicates a significant and sustained threat to participant wellbeing.

Positive Trends Participants are reducing their working hours during holiday periods, which indicates a more appropriate balance between work and life.

Negative Trends Offensive behavior rates and decreasing social support are very concerning.

Health and Wellbeing Outcomes Self-rated health results, as mentioned earlier, is a very robust measure of future health, so the decline over time is of great concern.

Recommendations

Context

The recommendations are designed to help the many stakeholders who are responsible for the quality of education in Australia. And, there is much to be done if we are to achieve our potential as a nation. They are the same recommendations published last year, as the situation across the country continues to trend in the same direction. The recommendations for the 2015 report, re-stated here were framed in such a way that all stakeholders are provided with potential action items. These are clustered under headings of responsible bodies: Government, Employers, Community, Schools, Individuals and the Research community. If we improve the working conditions for principals and teachers we also improve the learning conditions for students, as the two are inseparable (Leithwood, 2006). The recommendations are addressed to each stakeholder group, because many of the issues identified during the last six years represent issues for the nation, not just schools. Therefore, we must all be involved if we are to build on the positive factors and diminish the entrenched problems. There are particular challenges to the occupational health, safety and wellbeing of principals and deputiesassistants which result from contextual and geographical determinates, but most relate to more general occupational conditions found across the country in every state and school sector.

The recommendations were developed in response to trends identified over the six waves of data collection and build on the 2014 recommendations, which have been recast as strategies under the recommendations. Some of the strategies are beginning to be implemented in various jurisdictions. In light of these developments, the current recommendations extend to the aspirational. They are provocative, and some, perhaps many experts would say unachievable.

The recommendations are based on the best available evidence from both Australia and internationally. As recommendations, they will not be easily adopted, and will need coordinated and staged implementation. However, the hope in presenting them this way is that they will begin a full and frank national conversation about what we want for our future as a nation. Today's children are tomorrow's nation builders. We owe it to them and ourselves to give them the best opportunities we can. Countless studies show the transformative nature of education. If we, as a nation, are serious about the key role of education in the growth and development of this country, then as custodians of the future we ignore the powerful evidence contained in this, and many other reports at our peril. The results of this project demonstrate that the educational milieu has shifted over recent times and we now need to reassess the foundations upon which we build our education systems for maximum national benefit.

We can learn a great deal from how Finland, a country now admired for its educational outcomes, coped with a similar cross-roads moment in their history. At a time of economic difficulty ~40 years ago, they took a powerful and radical decision to invest in their people: the most important resource any country has. The major policy shift Finland collectively decided upon was to depoliticize education. Since then they have had 20 changes of government, but education was not a political issue and did not feature much in election rhetoric. Then, steadily, Finland became one of the best education systems in the world. It took a long time. It will take time in Australia too. Education systems are simply too complex for quick fixes.

Since Finland ascended to the top of the PISA table at the turn of this century, researchers from many other countries have been trying to find the 'secret' of their success. Local academics, who know Finland from the inside as well as education systems worldwide, such as Pasi Sahlberg, suggest that Finland's educational success, along with most other countries at the top of the table, is due in large part to forces outside education directly: equity, collaboration, creativity, trust-based responsibility, professionalism and equity. This was confirmed by large studies carried out by the OECD. The "highest performing education systems are those that combine excellence with equity" (OECD, 2013). Sahlberg (2015) has also identified the forces that impede school system improvement: competition, standardization, test-based accountability, de-professionalization and

school choice. These forces are all on the increase in Australia, and in many other countries (Sellar & Lingard, 2014), in the absence of evidence of long-term positive effect.

Sahlberg's (2015) "*Finnish Lessons* ... portrays an alternate universe, one that respects educators and enables them to do their best work, one that recognizes that society has an obligation to ensure the health and well-being of children. Sahlberg knew that the Finnish story stood in sharp contrast with what was happening in the United States and other countries" Diane Ravich (2015, Foreword, para 8).

If Australia were to adopt a similarly courageous decision to the one Finland took five decades ago, and use the best minds in the country to develop, elaborate and evaluate effective, context-derived, educational policy in a cycle of continuous improvement we could expect to achieve similar national gains. However, Australia's mix of 3- and 4-year political cycles that intersect across states, territories and nationally does not lend itself to the development of long-term solutions or long-term evaluation and promulgation of best practice, so we must start with the fundamentals. If we do not, we are simply deluding ourselves that we can effect significant change.

Short-term political cycles coupled with heavily politicized educational standpoints from major parties, has led to slogans rather than policy and short-term interventions open to further politicization and polemic. This is no surprise. Politicians are experts in politics not education. For Australian education to progress, we need the healthy clash of ideas in a complex discussion where experts and communities share the common goal of making schools the best places for our children; giving them the best opportunities in life. This would also provide the nation with sustainable, social and therefore economic benefit. Depoliticizing education would allow conversations aimed at building cases for change with highest quality evidence drawn from many sources and not driven by short-term political advantage. As the Finns realized, education is far too important for that.

The evidence from this report and many other studies carried out by the research community demonstrate that the successful ingredients to a continuously improving system that are abundant in Finland are generally diminishing in Australia, not growing. However, the good news from this project is that this is not universally true. The social capital data in particular show that many Australian schools, from all sectors, states and territories, right around the country have been able to thrive despite the issues outlined in the main report. We need to learn from these schools and rapidly mobilize the knowledge so that the others can adopt and adapt their schools with the new knowledge. It appears we are currently enclosed in a system that nobody wants. Equally important is that no one group is to blame for getting us in this situation. However, we are all responsible for the continuation of this system because we are co-creating it every day. In light of the evidence reported in this year's summary and taking previous years' evidence into account, Australia would do well to have a national conversation about the best way forward. The recommendations are offered in the spirit of seeding that debate.

15 Recommendations, 6 Foundations, 4 Strategies

In light of the comments above, and offered in the spirit of a national conversation starter, the following recommendations are offered in the form of what can be done, and who can do it. The recommendations rest on six foundations:

1. No single stakeholder group is responsible for the state of education in Australia, nor do they hold the power to effect much change to the system on their own.
2. Many issues impacting negatively on the education system are entrenched in the wider Australian culture.
3. Taking a long-term, rather than short-term focus is essential for significant improvement in the system.

4. Taking a holistic inquiry approach to both the successes and failures in the Australian education system is also essential. We can learn a great deal from both if we do not limit our gaze, or look for quick fixes.
5. De-politicising education at the macro- and micro-political levels will promote equity, continuity and transparency. For example the politicisation of the Gonski report, universally agreed by educators to provide a sensible and equitable way forward in education, should have set the conditions for a decade of educational development. Instead, it is suffering the fate of many educationally sensible reforms in Australia and its potential is being diminished. This becomes demotivating to educators. It is an example of the ‘moral harassment’ suffered by educators (Burens, 2015).
6. Australian education needs a change of mindset: moving beyond sectorised thinking. The problems and the solutions are very similar in all sectors so the differences between the sectors are more superficial than substantive. The variation in social capital inside schools demonstrates that simple resourcing, while important, is not going to fix intractable issues. A change of mindset is also needed.

This change of fundamentals in Australian education systems might be difficult, particularly point 5, but together they hold the greatest chance of long-term success, and there is strong international evidence to support it.

Recommendations

What Governments can do

1. *Adopt a whole of government approach to education.* This would mean the federal government, states and territories combining to oversee a single education budget in a managerial way. All school funding should be transparent so that anyone, at any level of the system can confidently know how much money they will have at their disposal so budgeting can be long term. The role of government should be to fairly set the global amount, not specify the detail of how it is to be spent. That should be the role of specialist education bureaucrats working collaboratively across jurisdictions. The current mixed jurisdiction model is antiquated, complex, obscure and difficult to traverse. Australia needs bipartisan and cross-jurisdictional agreement regarding school funding and a transparent mechanism that is simple to understand. This may be seen as a naïve recommendation, but the demolition of the Gonski funding model also had a significant symbolic as well as financial impact on schools. When everyone knows things will change significantly whenever governments do, it is demotivating for the educators. We need highly motivated educators, if we are to have the best school system possible.
2. *Stop looking for short-term quick fixes* and concentrate on getting a better grip of the fundamentals (collaboration, creativity, trust-based responsibility, professionalism and equity). These conditions underpin the whole of society not simply schools.

What employers can do

3. *Take the moral choice* of reducing job demands, or increase resources to cope with increased demands. Better still, do both. This will help to increase the level of social capital in schools.
4. *Trust rather than rule* educators. Leave the mechanisms for producing the best educators to the educators. This will also increase social capital. Long term increases in social capital helped Finland become the world leader.

What the Professional Associations and Unions can do

5. *Collaborate and speak with one voice.* Peak bodies and stakeholder groups can discuss their differences in camera and then speak with one voice publically about the standing of the profession to Government and the community. The sheer weight of numbers they collectively represent would mean they would be carefully listened to. Currently the system is atomised into Primary and Secondary Associations x 3 sectors x 9 states and territories + 2 unions. While each of these bodies has important functions and close connections with their membership, which is essential for the building and maintenance of social capital, their united voice on the big picture issues that are common to all principals while we live in a politicized education system is diminished. In Finland there is one union, which advocates for everyone.

What the community can do

6. *Support your local school.* Even if your child does not attend the local school it is an important part of your community. So support it whenever and however you can. Schools and communities thrive when they work together. The high variance in social capital across the country is powerful evidence of both its benefit and the risks associated with its absence. So the recommendation to the community is if you value your school and want it to be the best it can be for children, offer to help make it happen.
7. *Stop the offensive behaviour.* This is beyond debate. It simply must stop. The real issue is how to achieve this outcome. The steadily increasing levels of offensive behaviour across the country in schools of all types should give us pause. But this is not just occurring in schools, with increases noted in all frontline professions and domestic violence rates that we should be nationally ashamed about. Australia needs to have an adult conversation about the root causes of this and set about addressing them at every level of society.

What schools can do

8. *Increase internal social capital.* This is best achieved by studying those schools that have achieved high levels already in spite of the current conditions. Rapid dissemination of how they have achieved this will contribute to significant improvement in schools with low levels of social capital. But each school needs to do this in relation to their resources and particular contexts. This also intersects with Recommendation 7.

What individual educators can do

9. *Increase personal capital (social, human and decisional).* At the individual level this means increasing possibilities for development and exerting influence over the work based on sound values and moral judgements.
10. *Respectfully speak back* when faced with “moral harassment”, which is an occupational threat.
11. Ensure your *passions are harmonious*. This means to be in control of them. For example, love your work but do not let it dominate your life (become obsessive about it). A way to determine if passion is harmonious rather than obsessive is to monitor energy levels. Harmonious passion energises, so you feel better after engaging in your passion than when you began. Harmonious passion “... leads to a pervasive level of self-growth”, while obsessive passion has “corrosive effects” (Vallerand, 2015, p.334).
12. *Take responsibility for your personal work-life balance.* Only you can know what is reasonable for your long-term health and wellbeing. It is therefore incumbent on all of us to find and maintain a healthy balance. This cannot be done for you from outside and is too important to be left in other’s control.

What the research community can do

13. There is a need to *provide better longitudinal evidence* of the differential impact of all the forces that come to bear on education. Researchers need to be careful that they are not contributing to the problem by conducting short-term research without appropriate follow up studies that have been carefully designed to tease out the long-term implications of short-term interventions. An example of the deficiencies of short-term research relates to dieting. Many diets are successful in the short-term. However, the long-term outcome is often weight gain. Educational interventions that work in the short term but lead to worse outcomes long-term are not picked up with short-term cross-sectional research. The process and true benefit of education is longitudinal. Students are in the system for over a decade, and the benefits are life-long. Therefore we need well-designed longitudinal research, well translated for principals and teachers so that the most efficacious policies, processes and procedures are most widely adopted. This takes time and the considered and coordinated efforts of a number of people in the field working together toward better long-term outcomes.
14. Adopt the *EMU* methodology (Ryan, 2015) to rapidly identify *Exemplars* of best practice, accurately and fully *Measure* the determinants of success, and *Utilize* the knowledge in the most efficacious way. This may involve determining thresholds to identify school communities that will require more resources than they currently have available to arrest the diminishing returns and reset back to a positive trajectory. This would allow the targeted use of resources, and create the greatest return on investment for employers and government.
15. *Look for thresholds* that may be the key to administering limited resources. The variance in social capital suggests that while there are many examples of best practice from which we can and should learn, the paucity in a small percentage of schools suggests that there may be thresholds below which a school does not have the internal resources to rapidly utilize new knowledge about best practice and would benefit from outside support. If researchers can identify robust thresholds, this would enable the concentration of resources around those who needed them most, and not waste them on diffuse, but unnecessary distribution.

Principals, deputy/assistant principals and teachers are Australia's nation builders. They need to be well resourced, not just logically, but also symbolically, emotionally, and intellectually. The Finnish experience suggests that if we too can make courageous decisions about our national future we will then make it happen. It is time we began the conversation in earnest.

Strategies

The strategies are designed to help policy makers, (including: government; employer groups; professional associations; unions; school boards and governors) improve both working conditions for the paid work force and learning conditions for students, as the two are inseparable (Leithwood, 2006). They are grouped under thematic headings that emerged from the data analysis. While there are particular challenges to the occupational health, safety and wellbeing of principals and deputy/assistant principals which result from contextual and geographical determinates, they relate to more general occupational conditions found across the country in every state and school sector. Strategies A-C are relatively straightforward and consistent with evidence from other countries showing that professional support for principals provides many benefits that flow through to improved student learning outcomes.

Strategy D addresses the most complex and challenging findings: maintenance of dignity at work. The results suggest that the need to look for the causes, and reduce the levels, of adult-to-adult bullying, threats of, and actual physical violence in schools is urgently required. Given that this report reflects six years of consistent results drawn from approximately half of all principals in the country, the need to address these issues is important. If subsequent waves of data collection show a similar patterns of increasing offensive behaviour, we are likely to see violence at 10 times the population rate by 2019/20.

The population figures used for comparisons are drawn from a number of large population studies conducted in Europe. Reducing levels of offensive behaviour will produce significant educational gains for students. Previous research has shown that the most effective ways to prevent or diminish bullying and violence are through whole school approaches (Antonio & Salzfass, 2007; Dake et al., 2003; de Wet, 2010; Espelage et al., 2013; Twemlow, Fonagy, & Sacco, 2001). The research presented in this report suggests the problem is system-wide and therefore a system-wide approach is also needed: ideally a whole of government approach.

Strategy A: Improving the wellbeing of principals and deputy/assistant principals through Professional Support

Principals and deputy/assistant principals mostly learn how to deal with the demanding emotional aspects of the role on the job, rather than through systematic preparation. In other professions, such as psychology and social work, where highly charged emotional interactions occur, high levels of professional support and debriefing are standard procedure. This is not so in education. As a result, the average principals' and deputy/assistant principals' wellbeing survey scores are lower than the average citizen. However, there is a lot of variation and distinct differences between the principals and deputy/assistant principals who appear to be coping well with the complexity of the role and those who are not. Professional support is a strong predictor of coping with the stresses of the role (job demands). Therefore, policies need to be developed that address this issue directly. In the 21st Century, no principals and deputy/assistant principals should feel unsupported in the face of growing job complexity, increased scrutiny stress from public accountability and decreased control over the ways in which the accountability targets are met (Riley & Langan-Fox, 2013).

The evidence from the cluster analysis in the 2011 report and the findings of this survey clearly point to the benefits of professional support for all principals and deputy/assistant principals. Those who receive the least have the greatest challenges to maintain their mental health. The principals and deputy/assistant principals identified as coping least well with their daily tasks had the lowest levels of professional support from colleagues and superiors while those who coped the best reported the highest levels of professional support. This is an area of improvement that would be relatively easy for education systems to improve.

- Provide opportunities for principals and deputy/assistant principals to engage in professional support networks on a regular basis.
- Networks would need to be determined locally, contextually and formally, and provide opportunities for informal support alongside formal support, outlined in Recommendation B.
- A provision of time for principals and deputy/assistant principals to build and maintain professional support networks would be needed.
- This could be augmented by experienced principal mentors, perhaps retired principals, visiting schools to provide support in the form of professional conversations (“agenda-less” meetings) allowing school principals and deputy/assistant principals time to discuss the day-to-day functioning of their schools with a sympathetic, experienced colleague.

Strategy B. Professional Learning

Systematic attention needs to be paid to the professional learning of principals and deputy/assistant principals, as targeted professional support. There is a considerable need for skill development in the emotional aspects of the leadership role outlined in Strategy A: dealing with the highs and lows associated with the emotional investment of parents in their children. In-service provision of education on the emotional aspects of teaching, learning, organizational function, emotional labour, dealing with difficulties and conflicts in the workplace, employee assistance programs, debriefing self and others would be a great benefit.

Targeted professional learning is likely to make principals and deputy/assistant principals feel better supported than they currently report. Provision of ongoing professional learning is likely to assist all principals and deputy/assistant principals in two ways. First, by skill improvement and secondly through the benefits of increased perceptions of support outlined in Strategy A.

Strategy C. Review the work practices of Principals and deputy/assistant principals in light of the Job Demands-Resources Model of organizational health

Stress and psychological risk at work can be conceptualised through the balance of job *demands* (e.g., workload, time pressures, physical environment, emotional labour) and job *resources* (e.g., feedback, rewards, control, job security, support). The Job Demands-Resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) along with the Conservation of Resources theory (Hobfoll, 1989 (Halbesleben, 2006; Hobfoll & Freedy, 1993) posit that work demands and available resources need to be in balance for good psychological health at work. High job demands lead to exhaustion while low job resources lead to disengagement, both symptoms of job burnout. However, high job resources buffer job demands, reducing their negative impact on individuals. Principals and deputiesassistants report very high demands, out of balance with available resources to buffer the demands.

The average hours spent at work by principals and deputiesassistants ranges between 51-60 hours per week during term time and 25-30 hours per week during gazetted holiday periods. Too many participants in the survey are working too many hours and it is taking a toll on their greatest support group; their families. Work-Family conflict occurs at approximately double the rate for the population generally. The amount of emotional labour expected of principals and deputiesassistants is 1.7-times that of the population. When job demands are this high, they need to be balanced with significant resources to buffer the demands. Therefore, all stakeholders need to be consulted about ways in which this can be achieved. Obvious, but unlikely to be funded, examples of reducing job demands would be job sharing. However, working groups tasked with addressing the issues of job demands may identify lower cost and equally effective solutions to job sharing. What is clear is that this level of demand is dangerous to the long-term health and wellbeing of principals who find consistently that the resources available to them are not concomitant with the demands.

Strategy D: Address Bullying and Violence

There is an urgent need to establish an independent authority to investigate three types of offensive behavior identified as consistently occurring in schools:

- adult-adult bullying
- threats of violence and,
- actual violence

The authority should be independent from all stakeholder groups in schools and government. Specifically, the task force authority should have powers to interview teachers, parents and students, to investigate:

- differences in the occupational risk of the different types of principals and deputy/assistant principals, to determine who are most at risk, why and what can be done to protect them.
- whether/how the risk also extends to teachers and students.
- Governance structures, information flow between adults, and external influences on school functioning.

The consequences of offensive behaviour in schools are likely to become costly for employers, through time lost to ill health, OH&S claims against employers' responsibility for not providing a safe working environment and reduced functioning while at work as a result of the high levels of offensive behavior in the workplace. Therefore, the investment in such a taskforce may prove to be the least

expensive option in relation to this issue. The cost to mental health is high. Price Waterhouse Coopers have recently conducted a Return on Investment for addressing mental health in the workplace. They found that the impact of not addressing it amounted to \$10.6 billion annually (see, <http://www.headsup.org.au/creating-a-mentally-healthy-workplace/the-business-case>). However, they also reported that every dollar spent on addressing the issue returned \$2.30. So, addressing the problem in schools is also a good investment for the future of the nation.

Summary

Principals, deputy/assistant principals and teachers deal daily with parents' greatest hopes and deepest fears: the lives and potential futures of their children. While this is recognized in the law of *loco parentis*, the emotional consequences remain under-researched (Hargreaves, 2013; Woolfolk Hoy, 2013). This means high levels of emotion are attached to many aspects of school functioning, and principals and deputy/assistant principals have to learn how to deal with this on the job, rather than through systematic preparation. This can be particularly difficult for principals and deputy/assistant principals who must communicate the way education policy is both developed and practiced to teachers, parents and students, sometimes in emotionally charged situations. The difficulties between the adult stakeholders in schools that have been consistently reported in every year of the survey need to be acknowledged and dealt with on a more systematic basis. Systematic attention also needs to be paid to the professional learning of principals and deputy/assistant principals, and presumably teachers, in the emotional aspects of their roles and the emotional investment of parents in their children, which may underlie the high rate of violence and threats principals and deputy/assistant principals are experiencing. In-service provision of education on the emotional aspects of teaching, learning, organizational function, emotional labour, dealing with difficulties and conflicts in the workplace, employee assistance programs, debriefing self and others appears to be urgently needed.

References

- ACARA. (2011). My School. Retrieved from <http://www.myschool.edu.au/>
- ACARA. (2013). *Guide to understanding 2012 Index of Community Socio-educational Advantage (ICSEA) values*. Retrieved from Sydney: <http://www.myschool.edu.au>
- Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and wellbeing* (Vol. III, pp. 37-64). London: Wiley-Blackwell.
- Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *AUDIT: The alcohol use disorders identification test. Guidelines for use in primary care* (W. H. Organization Ed. 2nd ed.). Geneva.
- Burens, I. (2015, Oct 7-9). *Psychosocial risk management in France*. Paper presented at the COPSOQ International Workshop, MAS Centre Paris.
- Deci, E. L., & Ryan, R. M. (2000). The "What" and "Why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227-268.
doi:10.1207/S15327965PLI1104_01
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, E. T. Higgins, P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology (Vol 1)*. (pp. 416-436). Thousand Oaks, CA: Sage Publications Ltd.
- Fernet, C., Lavigne, G. L., Vallerand, R. J., & Austin, S. (2014). Fired up with passion: Investigating how job autonomy and passion predict burnout at career start in teachers. *Work & Stress*, 28(3), 270-288. doi:<http://dx.doi.org/10.1080/02678373.2014.935524>
- Idler, E. L., & Benyamin, Y. (1997). Self-rated health and mortality: A review of twenty-seven community studies. *J Health Soc Behavior*, 38, 21-37.
- Leithwood, K. (2006). *Teacher working conditions that matter: Evidence for change*. Retrieved from Toronto.
- OECD (2013). Education at a Glance: Education indicators. Paris. OECD
- Pejtersen, J. H., Kristensen, T. S., Borg, V., & Bjorner, J. B. (2010). The second version of the Copenhagen Psychosocial Questionnaire. Scandinavian Journal of Public Health, 38(Suppl 3), 8-24. doi:<http://dx.doi.org/10.1177/1403494809349858>
- PricewaterhouseCoopers Australia. (2014). Creating a mentally healthy workplace: Return on investment analysis. Retrieved from <http://www.headsup.org.au/creating-a-mentally-healthy-workplace/the-business-case>. website: www.headsup.org.au Retrieved from www.headsup.org.au
- Richardson, J., Khan, M., Iezzi, A., Sinha, K., Mihalopoulos, C., Herrman, H., . . . Schweitzer, I. (2009). *The AQoL-8D (PsyQoL) MAU Instrument: Overview September 2009*. Retrieved from Melbourne:
- Richardson, J., Khan, M. A., Iezzi, A., & Maxwell, A. (2013). Validity and reliability of the Assessment of Quality of Life (AQoL)-8D multi-attribute utility instrument. *The Patient - Patient-Centered Outcomes Research*, 7(1), 85-96.
- Ryan, R. M. (2015). *EMU methodology*. ARC Centre of Excellence for Indigenous thriving. IPPE. Sydney.
- Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* New York: Teachers College Press.
- Sellar, S., & Lingard, B. (2014). The OECD and the Expansion of PISA: New Global Modes of Governance in Education. *British Educational Research Journal*, 40(6), 917-936
- Thomson, S., Bortoli, L. D., & Buckley, S. (2013). PISA 2012: How Australia measures up. Retrieved from Camberwell:
- Trepanier, S.-G., Fernet, C., Austin, S., Forest, J., & Vallerand, R. J. (2014). Linking job demands and resources to burnout and work engagement: Does passion underlie these differential relationships? *Motivation and Emotion*, 38(3), 353-366. doi:<http://dx.doi.org/10.1007/s11031-013-9384-z>

- Twemlow, S. W., Fonagy, P., & Sacco, F. C. (2001). An innovative psychodynamically influenced approach to reduce school violence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 40(3), 377-379. doi:<http://dx.doi.org/10.1097/00004583-200103000-00019>
- Twemlow, S. W., Fonagy, P., & Sacco, F. C. (2002). Feeling safe in school. *Smith College Studies in Social Work*, 72(2), 303-326.
- Vallerand, R. J. (2015). *The psychology of passion: A dualistic model*. New York, NY: Oxford University Press.
- Van den Broeck, A., Ferris, D. L., Chang, C.-H., & Rosen, C. C. (2016). A review of Self-Determination Theory's Basic Psychological Needs at Work. *Journal of Management*, 42(5), 1195-1229. doi:10.1177/0149206316632058
- Williams, T., Ferraro, D., Roey, S., Brenwald, S., Kastberg, D., Jocelyn, L., . . . Stearns, P. (2007). *TIMSS 2007 U.S. technical report and user guide*. Retrieved from Washington DC: