



**Australian Government**  
**Department of Agriculture**



# **Measuring Effectiveness of APL Capability Building Activities**

**Final Report**  
**APL Project 2013/051**

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## **1. Planned Outcomes**

This project aimed to identify those activities and investments which have led to scholarship and award recipients continuing their career in the pork industry or increasing the level of involvement in the industry. The project aimed to identify critical factors that improve the standing of the pork industry as a career option for award recipients. The aim was to provide knowledge to assist in targeting future investments and improve the return on investment for limited industry resources.

## **2. Background**

It was believed that by supporting two distinct components of new capability, school students and university graduate and postgraduates, the industry is better placed to influence perception regarding the pork industry as a career. Informing potential 'recruits' of opportunities in the industry is a crucial first step in addressing labour shortage.

The changes in agriculture over the past 100 years have been remarkable. Today we employ technology our grandparents never dreamed of. Our adoption of technology and the related increase in efficiency and productivity has resulted in fewer people being involved in food production. In 1901, 518,000 people or 14% of the Australian population was involved in farming. This has reduced to 0.6% in 2011.

In 2011, there were 157,000 farmers in Australia. Around half of these were mixed crop and livestock farmers (22%), beef cattle farmers (20%) or dairy farmers (8%). There were 19,700 fewer farmers in Australia in 2011 than in 2006, a fall of 11% over five years. Over the 30 years to 2011, the number of farmers declined by 106,200 (40%), equating to an average of 294 fewer farmers every month over that period.

The transition to the industrial model brought with it improved food safety, increased product variety, improved consistency and a reliable and affordable source of nutritious food for consumers. Unfortunately, it also means fewer people being connected to the food system and reduced understanding and appreciation for how food is produced.

As with all agricultural industries, the pork industry workforce is ageing and has potential to lose its technical base. As a result the industry must place a high importance on providing our younger generation with industry information and career paths that will attract and retain a skilled workforce now and into the future.

A number of studies of Social Network Analysis of occupational segregation have found that network referrals are important for job search and this translates into stable occupational segregation equilibria in the labour market. Lindsay and Biddulph in 2009 reported that the main reason for pursuing a career in agriculture was an existing connection with agriculture (80%). With so few individuals now involved in Agriculture and more specifically the pork industry the family and social network and experience of these occupations is very limited and therefore the industry needs to seek alternative means to provide contact with, social networks with and life experience of the industry to students if they wish to influence career choices and increase the number of individuals attracted to the industry.

The timing of the presentation of information and opportunities to students is also important. Various studies have developed models of career decision making, and have identified that career readiness is an important component. For the pork industry there appears to be two distinctly

different entry points and career paths, one for school leavers and one for university graduates. The career readiness timing for these two groups and the factors that will influence their choices are likely to be significantly different.

A significant influence of young people outside their family is their school or college community. Professor Eileen M Byrne & Dr W Sam Beavers in their 1993 Research review of Career Education, Career Guidance and Curricular Choice identified that *“a sample of Australian secondary schools reveals an almost total lack of rationale, a lack of any coherent, planned approach; and some continuing serious confusion in the field about the actual and distinct nature of the separate but related functions of career education, career guidance and career counselling.”* Since this time despite the best intentions for many schools little has changed. For school leavers entering the pork industry critical factors will include access to career information through subjects such as Agriculture, practical experience and opportunities at the time that they are looking for employment. Despite industry and community expectation that the Schools or Universities will provide information to students, the reality, due to the limited experience of teachers with agriculture generally and the pork industry in particular, and their limited resources, is that it will be incumbent on industry to proactively provide resourcing and opportunities for students, for example every year contacting the local school and/or Universities to offer work experience placements and/or training program, access to conferences etc.

Another significant influence on job seekers in the current market are the various employment agencies and again due to the limited experience of agriculture and their limited resources, it will again be incumbent on industry to regularly and proactively provide resourcing and opportunities for job seekers, for example contacting all local job agencies to offer work experience placements and/or traineeships etc.

For those undertaking university study there is again two distinct groups being graduate and post graduate students. The career choice readiness for these two groups is likely to be different with post graduate students possibly delaying choice and there being a significant opportunity to influence career choice by providing opportunities for funding of PhD studies. For undergraduate students the timing of career choice readiness will vary across the period of their studies and it may be important to provide opportunities for information right across the period of the students' studies.

Historically APL has provided financial support to assist students to undertake studies and on-farm work placements. This project aimed to re-establish contact with these students and gain an insight into their experiences and views on perusing a career in the Australian pork industry. APL supplied the most recent contacts details they had for students. Using avenues such as Facebook®, LinkedIn® and industry contacts the current contact details of past student was identified and they were approach to compete an online survey on their experiences and career endeavours.

### 3. Results

Of the 34 participants on the APL data base, 22 participants for which current contact details could be obtained were contacted and indicated that they would be willing to participate. Of the 22 participants sent a survey 20 completed, or partially completed the survey. Whilst we requested resumes most were not willing to provide detailed resumes however were happy to provide details of their current employment which we have recorded. Whilst this is quite a small sample size the responses and particularly the comments, provide useful information and have provided a number of insights into the type of factors that influence involvement in the industry.

Approximately 74% of respondents were involved in pork programs in their undergraduate program, 21% in their graduate program with 5% (1 individual) involved through another program.

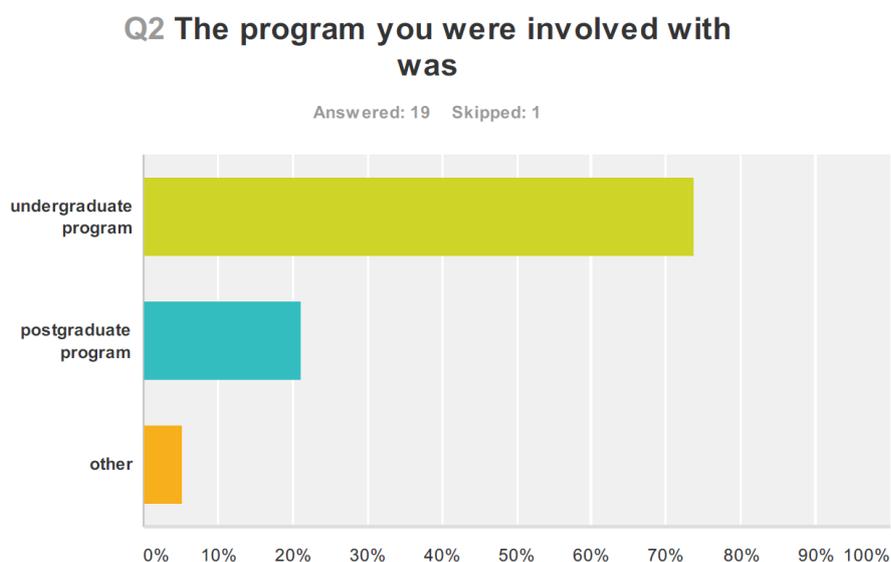


Table 1: Survey question 2 results

Whilst only 3 participants are currently employed by the pork industry and one is a student with current involvement in the industry it is of note that 42% are employed in other industries but have identified that they may return to the pork industry in the future. This is both disappointing that we have not been able to secure them for the industry at this time but also encouraging that they would consider returning to the industry. This identifies an important area that may need further investigation as there are obviously aspects of the industry that would meet their needs but their employment in other industries shows that there are some significant barriers that need to be overcome.

Of note is that in some of the piggeries whilst students may not be currently working in the pork industry they would consider return to the industry and the piggery staff have maintained contact and relationships many years later. The ability to form relationships between industry and students appears to be a key factor in the conversion of placement to an influence in career choice. Some of the respondents noted “great people”, “great, friendly staff to work with” and “due to the size of the industry it has a “community” feel to it”. When asked how would you describe the working conditions “Smelly! Great people.”

### Q3 Are you currently employed in the pork industry?

Answered: 19 Skipped: 1

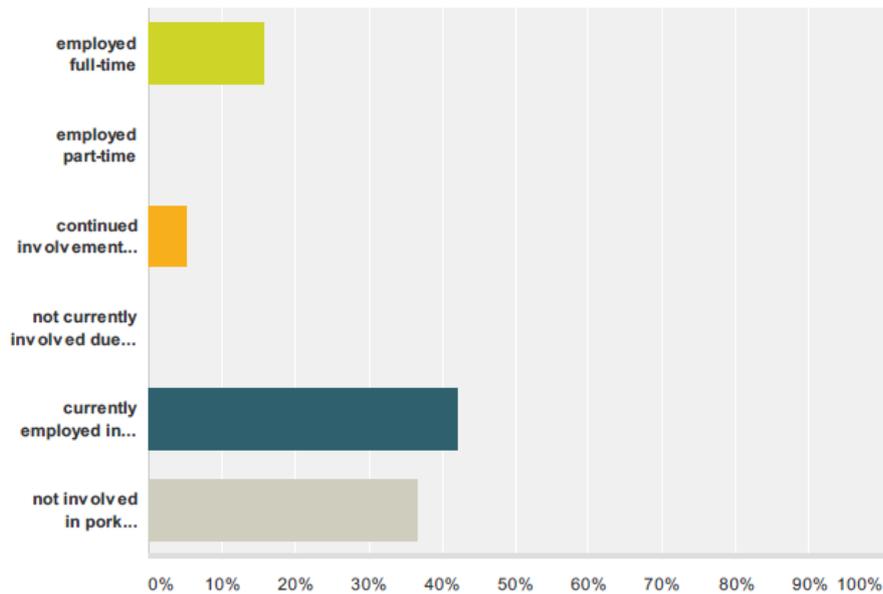


Table 2: Survey question 3 results

Answer Choices	Responses
employed full-time	15.79% 3
employed part-time	0.00% 0
continued involvement with pork industry as a student	5.26% 1
not currently involved due to study but expect to return to industry in future	0.00% 0
currently employed in another industry but may return to pork industry in future	42.11% 8
not involved in pork industry and not planning to return to pork industry	36.84% 7

Table 3: Survey question 3 results analysis

From the comments of the respondents it was very evident that there is a significant lack of understanding of career options and the variety of opportunities, and that this remains poorly understood even for those that undertook placement opportunities.

The comments included “I feel that more could be done to promote the pork industry in the undergrad community, my classmates assume that the only jobs are those for sales reps.” And another respondent “I was unsure of the career opportunities in the pork industry for an agriculture graduate.” This was the reason for not pursuing a career in pork industry from someone who was introduced to pork industry through APL/Pork CRC project as part of their study at undergraduate level. The level of understanding of career opportunities within the pork industry by other students without this exposure to the industry is likely to be even lower. And another “I think that more Animal Science students would be interested in the industry if the productivity of enterprises was more widely promoted.

People assume that pig farming is "easy" and "uncomplicated" as a student I was blown away by the capabilities of pigs and how much science went into the industry."

Of those that are currently in the pork industry as an employee or student they are spread evenly across sales, nutrition, veterinary and on farm.

sales	25.00%	1
nutrition	25.00%	1
regulatory	0.00%	0
vetinary	25.00%	1
advisory/consultant	0.00%	0
on farm	25.00%	1

Table 4: Spread of respondents currently employed in pork industry

Of all the respondents only one identified as having any involvement with the pork industry prior to commencing their undergraduate studies. Given the amount of research that shows the importance of Social Network on occupation choice and that the main reason for pursuing a career in agriculture was an existing connection with agriculture, the continuation of exposure of the industry is critical. With so few individuals now involved in Agriculture and more specifically the pork industry the family and social network and experience of these occupations is very limited and therefore the industry needs to seek alternative means to provide contact with, social networks with and life experience of the industry to students if they wish to influence career choices.

Answer Choices	Responses	
was involved in pork industry prior to starting study	8.33%	1
was introduced to pork industry as part of my study at Graduate level	66.67%	8
was introduced to pork industry as part of my study at post graduate level	0.00%	0
was introduced to pork industry as part of the APL/pork CRC project I was involved with	25.00%	3

Table 5: Respondent answer breakdown of introduction to pork industry

Of those that have left the pork industry approx 45% were involved in the industry for over a year but less than 5 years. Given the high mobility and job role changes expected by Gen X and Y it is to be expected that individuals change jobs much more frequently that past generations. However it appears that a number of these individuals have not just changed jobs they have also exited the industry. The ability for career progression within industry may need to be further examined if the industry is to retain these skills. It is highly likely that career progression may not be available within an employer within the timeframe that Gen X and Y aspire to however strategies to assist these individuals to still progress their career within the industry rather than looking outside the industry may be beneficial in retaining these skills within the industry.

**Q7 If you have left the pork industry how long were you involved in the pork industry?**

Answer Choices	Responses	
APL/Pork CRC project only	44.44%	4
1-3 months	11.11%	1
3-6 months	0.00%	0
6-12 months	0.00%	0
1-2 years	22.22%	2
2-5 years	22.22%	2
5 years +	0.00%	0

*Table 6: Survey question 7 respondent answer breakdown*

**Q8 If you have left the pork industry what were your reasons for leaving**

Answer Choices	Responses	
family/parenting responsibilities	16.67%	1
to continue study	33.33%	2
unable to obtain suitable position in pork industry	0.00%	0
lack of future career opportunities in pork industry	33.33%	2
to move to another area to access services/amenities/schooling/ medical etc	16.67%	1

*Table 7: Survey question 8 respondent answer breakdown*

A significant portion approximately 40% do not feel that the career paths, wages and benefits will allow them to continue working in the industry throughout their career.

**Q15 Do you feel the career paths, wages and benefits will allow you to continue working in this industry throughout your career? (where 1 =highly unlikely to be retained in industry, 10 = certain to be retained in the industry)**

1	2	3	4	5	6	7	8	9	10	Total	Average Rating
0.00%	10.00%	10.00%	20.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10.00%	10	5.80
0	1	1	2	1	1	1	1	1	1		

*Table 8: Survey question 9 respondent answer breakdown*

It appears that the respondents were ambivalent about their future in the pig industry with an average score of 5.3. See Table 8.

**Q16 Do you feel positive about a future career in the pig industry? (where 1 = extremely negative, 10 = extremely positive)**

1	2	3	4	5	6	7	8	9	10	Total	Average Rating
10.00%	0.00%	0.00%	10.00%	50.00%	10.00%	10.00%	0.00%	0.00%	10.00%	10	5.30
1	0	0	1	5	1	1	0	0	1		

*Table 9: Survey question 16 respondent answer breakdown*

Most students had good relationships with their supervisor and felt well supported by their employer/supervisor, APL and Pork CRC with average scores of over 8 on each of Q 9-11, they also felt that the people they worked with possessed adequate skills to fulfill their duties (Q20). However their rating was much lower with an average of only 6.2 when asked if there was appropriate training/career opportunities available to advance your career.

**Q12 Do/did you feel there was appropriate training/career opportunities available to advance your career ( where 1 = opportunities were not available, 10 = exceptional opportunities)**

1	2	3	4	5	6	7	8	9	10	Total	Average Rating
0.00%	0.00%	20.00%	0.00%	10.00%	30.00%	10.00%	10.00%	20.00%	0.00%	10	6.20
0	0	2	0	1	3	1	1	2	0		

*Table 9: Survey question 12 respondent answer break*

Most students were open to further training opportunities with approximately 86% indicating that they would have liked to be able to attend conferences or workshops and over 55% indicating that they would like to participate in web seminars. This highlights a significant opportunity to provide information and networking opportunities to a large number of students that it is likely that they would highly value and that may be cost effective for the industry to provide.

### Q13 what additional training opportunities would you like to have available?

Answered: 7 Skipped: 13

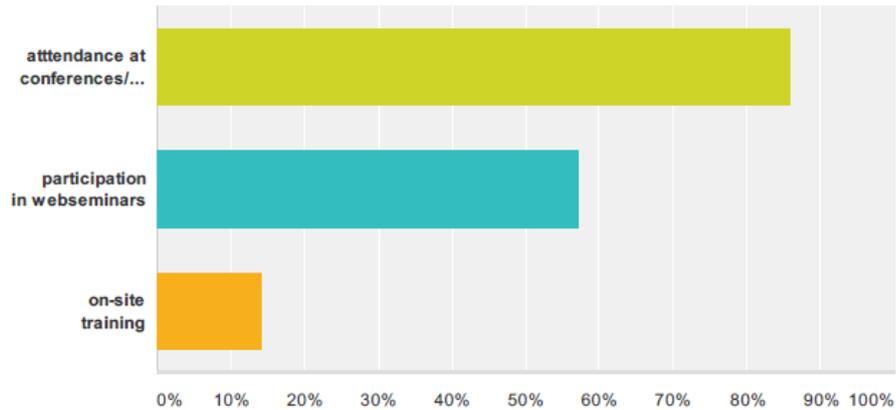


Table 10: Survey question 13 results

Answer Choices	Responses
attendance at conferences/workshops	85.71% 6
participation in webseminars	57.14% 4
on-site training	14.29% 1

Table 11: Survey question 13 respondent answer breakdown

Many studies have shown that in determining career satisfaction there are many complex factors and whilst remuneration needs to be “fair” as long as it is reasonable it is not the main criteria. The respondents when asked Are/were the wages and benefits competitive compared to other industries have provided an average weighting of 6.1. Therefore it is highly unlikely that the level of wages and benefits is problematic in attracting and retaining employees to the industry.

### Q14 Are/were the wages and benefits competitive compared to other industries (where 1 = much lower pay and benefits, 10 = exceptional pay and benefits)

	1	2	3	4	5	6	7	8	9	10	Total	Average Rating
(no label)	0.00% 0	0.00% 0	0.00% 0	10.00% 1	40.00% 4	10.00% 1	10.00% 1	30.00% 3	0.00% 0	0.00% 0	10	6.10

Table 12: Survey question 14 respondent answer breakdown

Whilst past student participants are likely to suggest a career in the pig industry to a friend and recommend to other students that they participate in APL/Pork CRC projects, most are not in a position to promote student placements with their current employer.

Suggestions from the respondents to improve the effectiveness of the projects and increase student attraction to a career in the pork industry were for;

- *“Information days at all Uni campuses, day tours/field days/field trips to piggeries? APL attend Country shows and field days?”*
- *“more opportunities for students at an undergraduate level to attend conferences/workshops - mostly you don't start attending until honours/postgraduate level”*
- *“more engagement at undergraduate level”*
- *“more info and structure for the farm staff about the program”*

#### **4. Recommendations**

Overall the future programs will need to address the following issues;

1. Increase contact with and networks between the pork industry and teachers and students
2. Increase knowledge of the types and range of career opportunities within and supporting the industry
3. Develop strategies to increase retention of those that pursue a career within the industry

##### ***4.1 Increase contact with and networks between the pork industry and teachers and students***

- Provide and promote resources to teachers to use in undergraduate training
- Build relationships and network with training providers and students
- Promote and arrange experience days/access to commercial piggeries for Ag students
- Provide training to those that will be meeting with students through industry placements or visits on the importance of relationships and networks
- Continue to fund post graduate research, by providing opportunity at this critical period of career choice this may significantly influence career choice
- Promotion of and access to conferences and any industry training programs to trainers/teachers and undergraduate and post graduate students
- Provide training to industry “champions” on how to communicate their messages using social media and public speaking opportunities and seek to build relationships that promote and provide opportunities for these industry champions to provide “guest” talks at University courses
- Work co-operatively with other Agricultural industries to provide and promote training on communications to primary producers and seek to lobby for all agricultural industries to adopt a more inclusive approach in making their conferences and training opportunities more accessible to students.

##### ***4.2 Increase knowledge of the types and range of career opportunities within and supporting the industry***

- Review the “A Career in Pork” brochure which is part of the US National Pork Board program Pork Checkoff, and the website materials as part of Pork Checkoff and look to provide and promote similar resources to Australian students
- Provide training for the host piggeries on how to promote their industry and how to discuss the variety of careers within and supporting their industry
- Provide resources such as brochures on career options within pork industry directly to students, and as resources for trainers

- Provide training to industry “champions” on how to communicate their messages using social media and public speaking opportunities and seek to build relationships that promote and provide opportunities for these industry champions to provide “guest” talks at University courses

#### **4.3 Develop strategies to increase retention of those that pursue a career within the industry**

- Promote a mechanism to advertise centrally all vacant positions within the industry to allow better flow of communication of potential career advancement possibilities to interested applicants to stem the flow of employees to other industries.
- Investigate further with employees across the industry the various contributors to career satisfaction and their perception of any impediments to career progression within the industry.

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