



SHIRE OF  
MANJIMUP  
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Department of  
Primary Industries and  
Regional Development

# Developing student interest in the agriculture sector

*Final Report  
December 2017*



# Project overview



# Sponsors



This research was commissioned by the Shire of Manjimup's Southern Forests SEED Program, as part of the Agriculture Expansion Project which was Royalties for Regions funded by the Department of Primary Industries and Regional Development (DPIRD) and managed by Department of Primary Industries and Regional Development, Agriculture and Food.

Additionally, the project has been greatly supported by Shire of Manjimup Education Development Officer, Stephanie Carstairs, and Alysia Kepert, Principal Consultant – Agricultural Education, Department of Education. From concept delivery through to project design and analysis, their assistance and extensive category knowledge was invaluable in driving the outcomes of this important piece of research.

# Objectives

Primary industries are facing a shortfall of skilled workers in the agriculture sector and need to address this as part of future proofing and developing the long term viability of the sector.

It is hypothesised that the appeal of the sector is low due to a misunderstanding of what a career in agriculture offers. The technological innovation that is taking place within the sector and the new careers that are possible are not being communicated to students. In particular, urban students are unlikely to realise that the majority of roles in the agriculture sector occur after the farm gate.

This research was commissioned by Shire of Manjimup to assist all agriculture focussed organisations in Western Australia to better understand the youth audience and to ensure that future communications targeting this audience are relevant and impactful.

Specifically:

1. Understand the drivers of career choice and the decision making process students go through
2. Understand existing perceptions of agriculture and the source of these perceptions
3. Determine how to position agriculture as a desirable career option








# Methodology

The research was conducted in two phases:

1. A qualitative exploration of youth knowledge, attitudes and behaviour via 4 x focus groups
2. A quantitative validation of the qualitative findings via an online survey of n=512 high school students

The focus groups were held in Perth the week of 11<sup>th</sup> September 2017 with year 10, 11, 12 and first year university students.

The online survey was conducted from the 6<sup>th</sup> – 29<sup>th</sup> of November using YouthInsight's online panel.

This report contains a mix of open ended, qualitative feedback and statistical analysis of survey data. Throughout the report significant differences between respondents have been highlighted using   

These symbols highlight differences that are significant at a confidence level of 95% and a confidence interval of  $\pm 4.3\%$



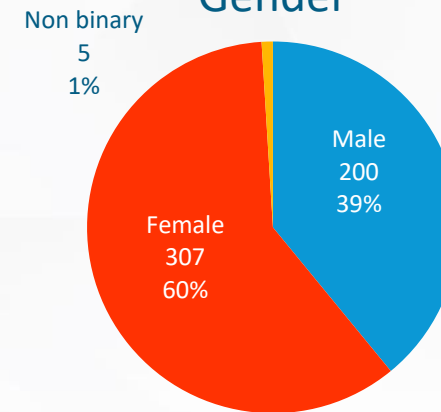
# Sample overview

## FOCUS GROUPS (4 x 1.5 hours)

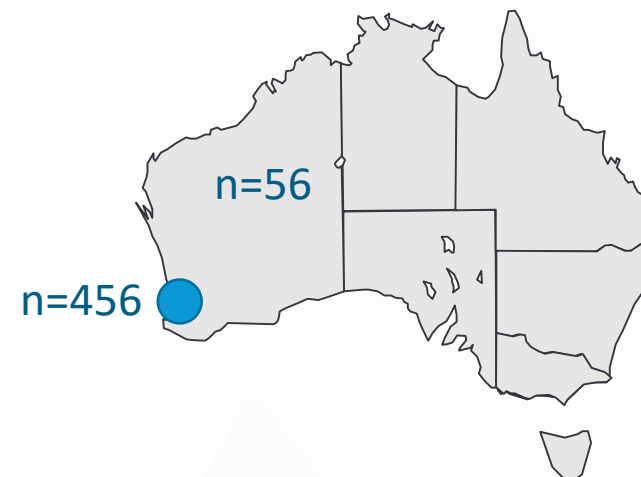
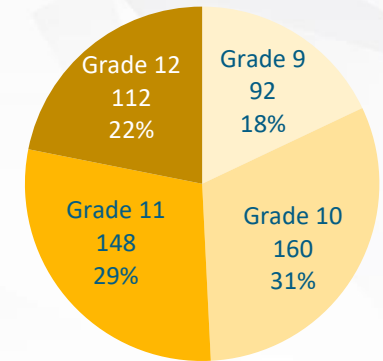
## ONLINE SURVEY (n=512 completes)

Group	Audience	Other characteristics
#1	Year 10	Within each group: <ul style="list-style-type: none"><li>• Mix of males and females</li><li>• Mix of STEM and non-stem focussed students</li><li>• Mix of public and private school</li></ul>
#2	Year 11	
#3	Year 12	
#4	1 <sup>st</sup> year University	

Gender



Student Type



# Weighting

- To ensure survey results are representative of the population of interest, rim weighting is used to correct for under or over representation of sub-groups within the survey respondents
- Specifically:
  1. An equal balance of males and females within each school year (while taking into account those who do not identify with binary genders)
  2. An equal representation of each school year in the sample
  3. A ratio of Perth to Other WA students that matches with ABS data for 15 – 19 year olds (80% Metro : 20% Regional) at a total sample level.

**Grade by Gender (Target weights n=)**

	Male	Female	Non binary	Total
Year 9	64	64	0	128
Year 10	63	63	2	128
Year 11	63	63	2	128
Year 12	63.5	63.5	1	128
Total	253.5	253.5	5	512

**Location (Target weights n=)**

	Perth	Other WA	Total
Total	409.6	102.4	512



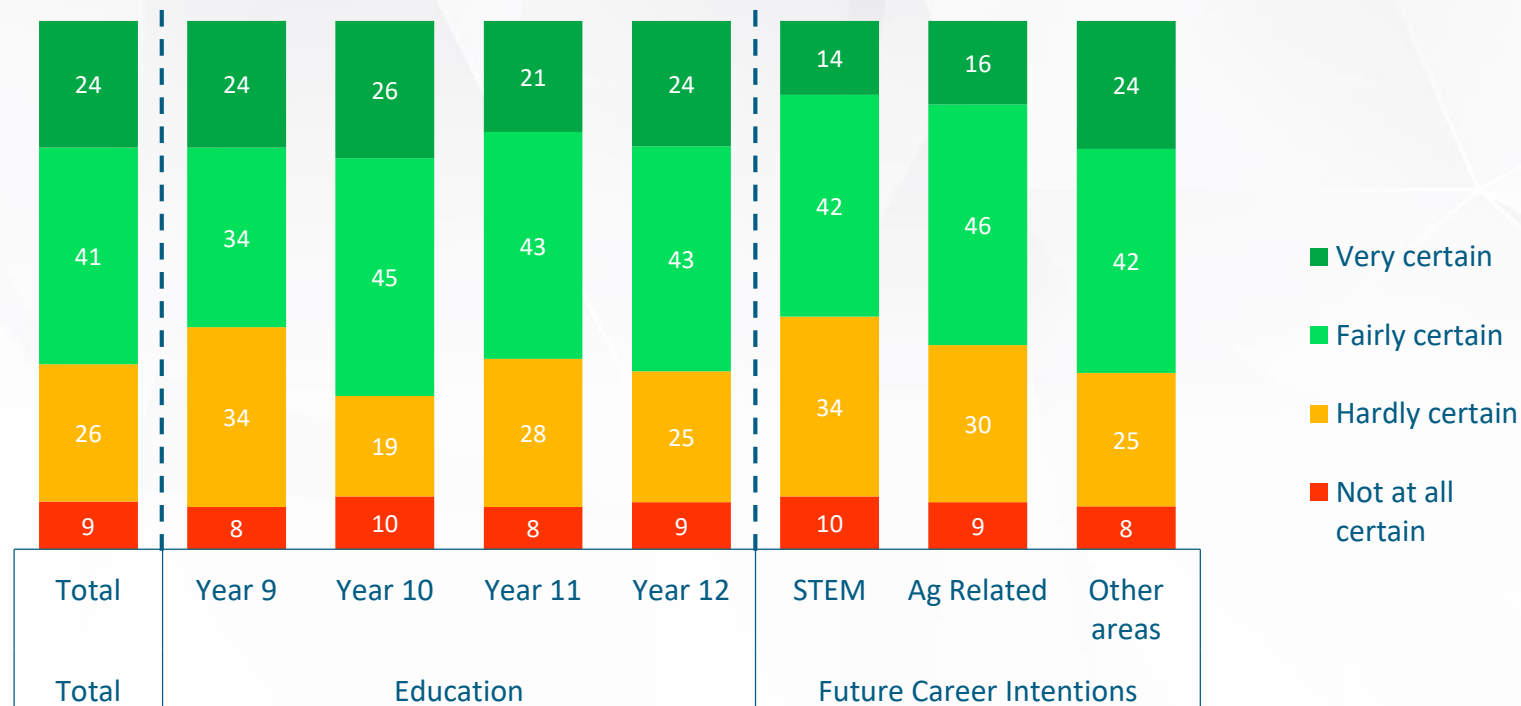


# Drivers of career choice



# Across all grades, few students are locked into a career choice

## How certain are you about your career?



When considering their future intentions, those interested in STEM and Agriculture related fields are less certain about their choices than those interested in other areas.

This uncertainty is something that can be leveraged when promoting a career in agriculture.

## Without a defined career goal, students' priority is their next major education milestone

- Grade 10 → Selecting subjects for senior years
- Grade 11 → Doing well enough to achieve a good ATAR
- Grade 12 → Choosing uni degrees / universities
- 1<sup>st</sup> year uni → Initial stages of career exploration

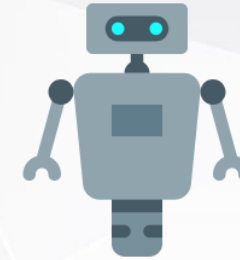


At the younger grades this makes it difficult to speak to them about specific careers, it is not until year 12 (when they are considering degree types) that career choices begin to solidify

## Outside of their immediate next step they discuss pathways, options and choices because the end goal is a moving target



Lack of knowledge about what jobs are available and what they entail



Lack of certainty about what the future career landscape will look like under the cloud of automation and globalisation



Need to address these points when depicting agriculture as a career option:

- The variety of opportunities available outside of “farmer”
- The necessity of agriculture to human existence, and hence, its stability (even though it is undergoing technical change)
- Presenting pathways and choices, not just end goals



# Depending on their career certainty they take two approaches

**Those certain of their career choice work backwards through a narrow pathway**



I'm very sure. Design is something I've enjoyed doing for a very long time. I'm not good at anything else  
- Year 12 student

**Those uncertain of their career work forwards to create as broad a range of opportunity as possible**



I don't know how school will turn out. I need lots of safety nets I guess. Back up plans.  
- Year 12 student



The “uncertain” cohort are the better immediate opportunity as they are the larger cohort, however people entering agriculture as a specific career choice should be the long term goal

# Career drivers

## Safety

- Salary
- Structure
- Physical safety
- Industry stability
- Large number of job opportunities



## Enjoyment

- Fun
- Engaging
- Variety
- Co-workers
- Physical environment and space
- Positive atmosphere / vibe
- Creativity



## Intrinsic rewards

- Satisfying
- Pride
- Professional growth and skill development
- Personal development



## Extrinsic rewards

- Improving the world
- Helping others
- Seeing the outcomes of your work
- Problem solving



Different people place varying importance on these factors, however there is a high level of consistency to these results in the survey suggesting they are universal drivers for this cohort

# The majority take an informal, and somewhat passive approach to career information and decision making

## Informal

- TV and movies
- Classes they enjoy
- Family friends / relatives
- Older siblings / friends
- School / university teachers

A mixture of reading a lot of stuff and watching stupid television shows that had a lot of forensic pathology in them. I used to watch Bones.

- Year 10 student

A friend is doing a few courses at Murdoch, switching between law and criminology. And my Politics and Law teacher and my Health Studies ATAR teacher, they said it would be a good career for me. I trust their opinion.

- Year 11 student

## Formal

- Career / guidance counsellors
  - University open days
  - Work experience [HS] or Prac [Uni]
  - University course guides
  - Uni students mention Seek and LinkedIn. High school students not yet using these platforms.
- Self directed online research is low unless they have an exact idea of what they want to do

I've probably done a weekend's worth of research. Probably like 10 minutes research, 50 minutes on Netflix... You either get frustrated from not finding what you want, or you lose interest after a short period.

- Year 10 student



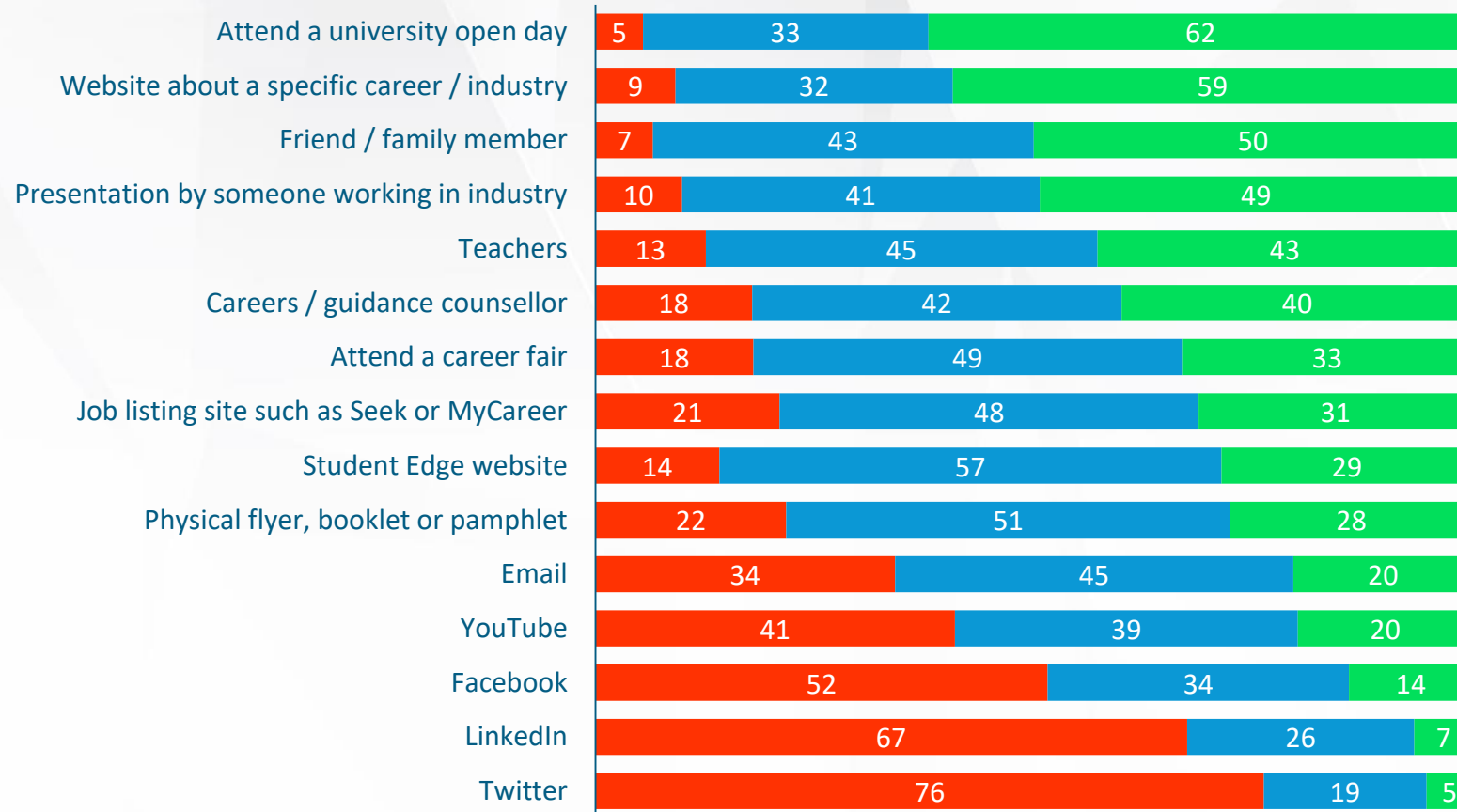
For those without a clear goal you need to take the information to them as they won't seek it out. Google only works well when you have something specific to search for.



# This passive approach is also evident in the survey results

## Sources for career advice

Not likely Somewhat likely Very likely



Ag career interest:  
Interested (6-10) 47%  
Uninterested (1-5) 29%

Females 35%  
Males 21%

# What are their questions when researching careers?

## Core:

- What is your day to day like?
- What do you enjoy / find rewarding?
- What don't you enjoy? What's difficult in your job?
- How much money do you make?

Information from somebody who is actually in that field is most useful because they've got the actual experience doing that job.

[It's important that] they're not biased, they're not completely one-sided, they discuss both sides of it, and they're open about it. You want to hear some of the bad with the good.

- Year 12 student

## Additional concerns as they get older:

- What is the trajectory of the industry?
- What are the education pathways available?
- What are the stepping stones within the career?  
How do I get to your position once I finish studying?

In science videos you always see them finding discoveries. But you need to know what the every day is like. What they do to get to the point of discovery because every day you're not discovering something new.

- Year 12 student



Content developed for this audience needs to address their career questions authentically: this means addressing the good and the challenging aspects of the industry

## Recapping section 1

1. Need to highlight the alignment between their personal drivers of career choice and the opportunities available to them in agriculture
2. The challenge of presenting this opportunity is the breadth of career options available within agriculture coupled with their lack of understanding. Trying to present all the different job types will be overwhelming. Communications need to bring to life specific roles that challenge stereotypes.
3. Need to intervene and communicate in slightly different ways to different age groups
  - Grade 10 / 11: Setting the groundwork for the idea of an agriculture career
  - Grade 12: Influencing degree choice to keep them in the ag funnel
  - University: Directing their specialisations into areas of benefit to agriculture and creating desire to enter the industry AND/OR swapping to ag degrees

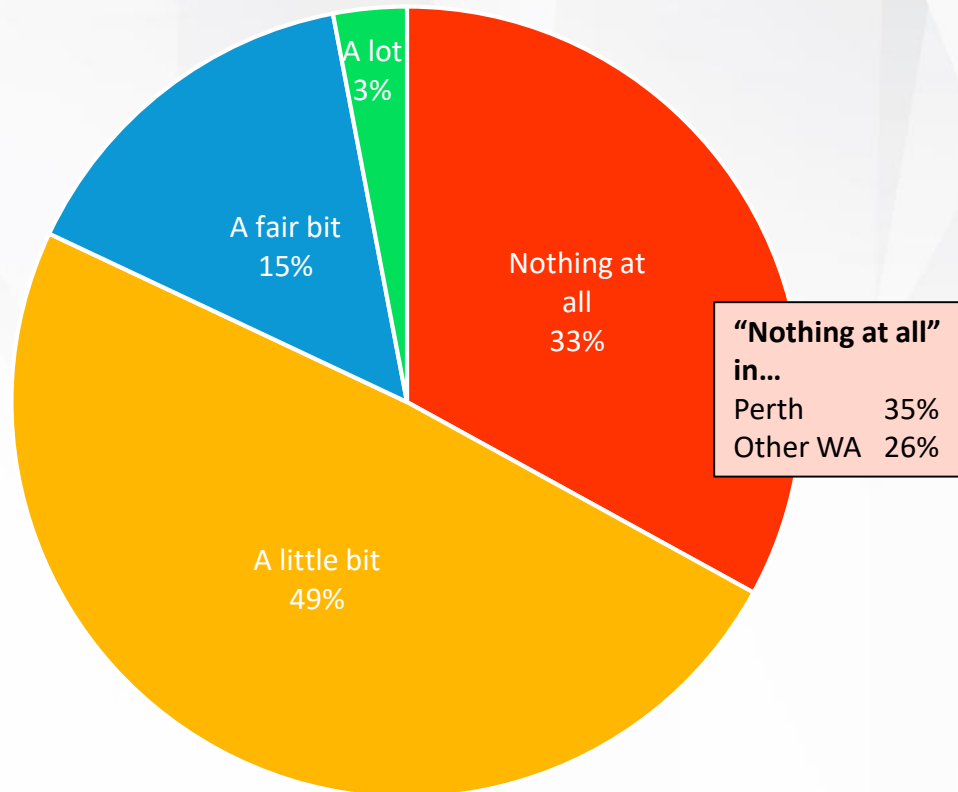




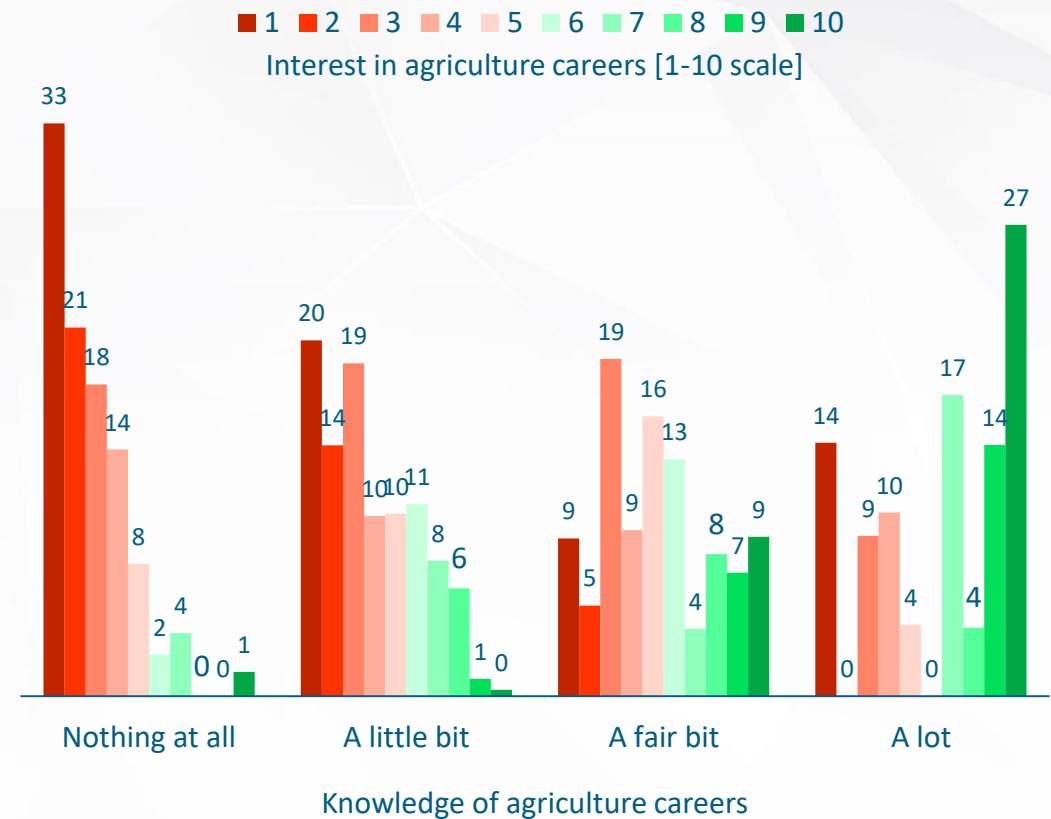
# Knowledge and understanding of agriculture

# Confirming the findings of the qualitative stage, knowledge of agriculture is low with a correlating low interest

Knowledge of Ag Careers



There is a positive correlation between knowledge and interest

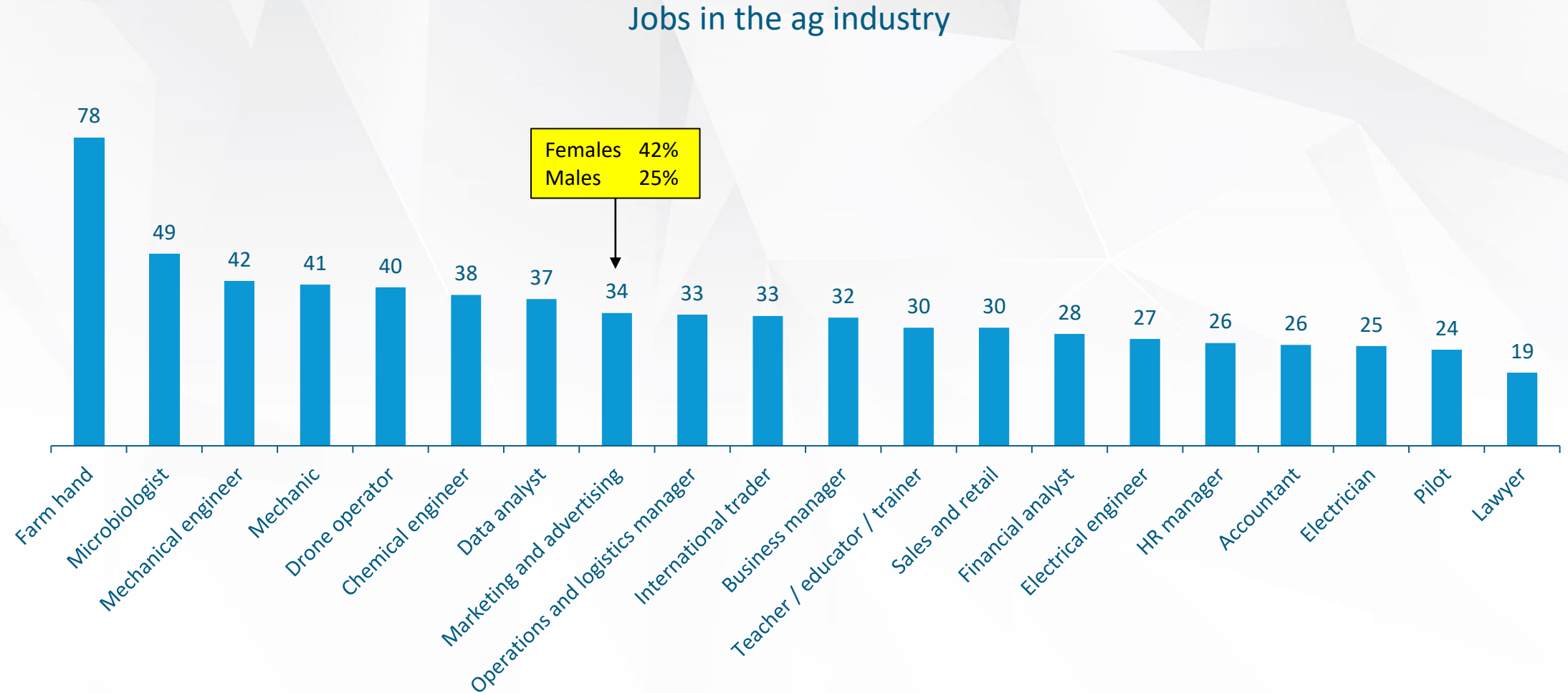


Q. How much do you know about agriculture careers? [SC]

Q. On a scale of 1 to 10, where 1 = "not at all" and 10 = "very much", how interested are you in working in the agriculture industry? [SC]

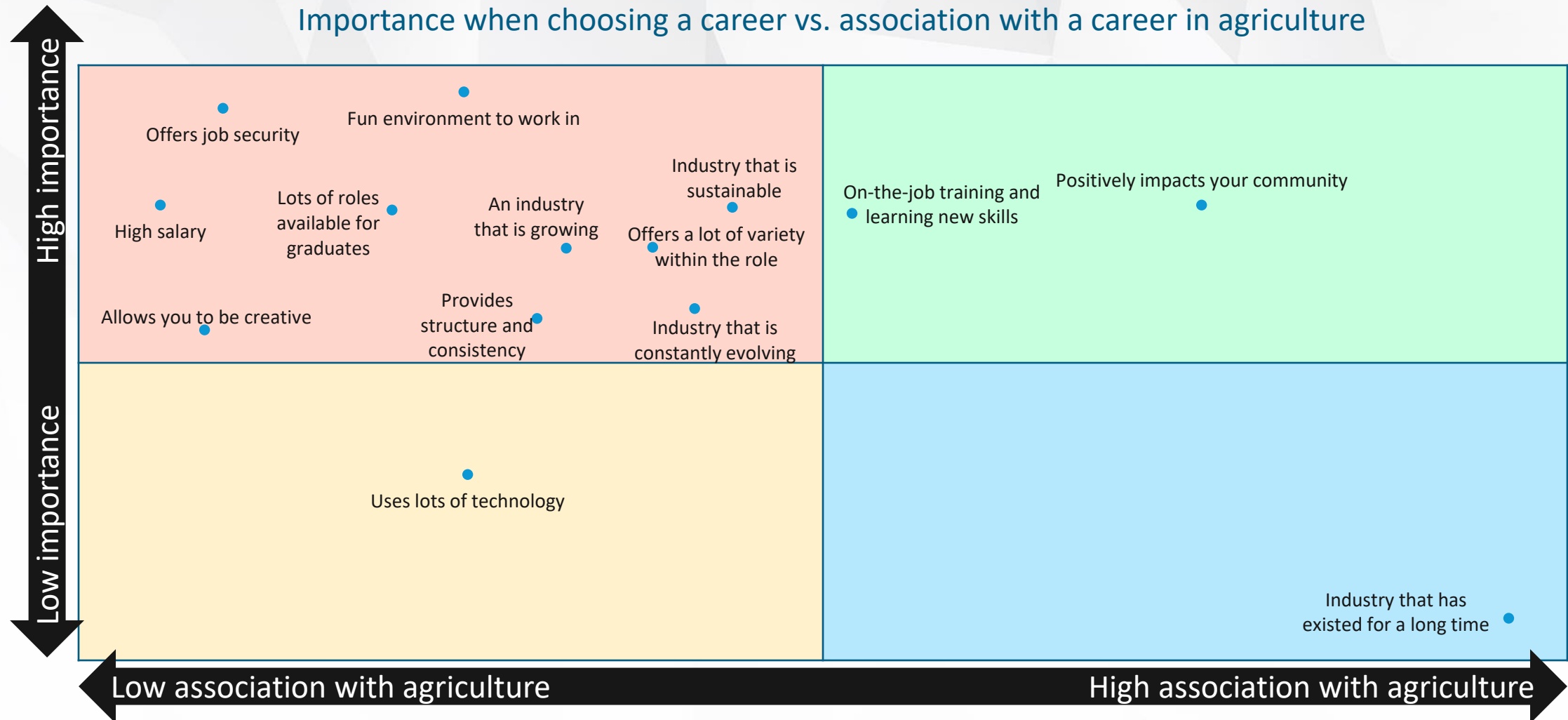
Base: All respondents n=512

# Students have little understanding of the types of jobs available in the ag sector, outside of the stereotypical “farm” roles





# The major drivers of career choice also have a low association with agriculture



Q. How important are each of the following when choosing a career? [SC]

Q. For each of the following, how much would you agree / disagree that the agriculture industry can offer you the following in a career? [SC]

Base: All respondents n=512

**perception**

**equals**

**reality**

# Their perceptions of agriculture and regional areas are a caricature created by TV, movies, cartoons, news and limited personal experience

## Agriculture

- Farming, tractors and paddocks
- Dirty, smelly, sunny, outdoors
- Practical and hands-on
- Hard, manual labour
- Time intensive
- Far away, remote
- Unprofitable
- Risky and unstable due to weather
- Boring / not interesting

## Regional living

- Difficult to access health, education, entertainment, communication and retail services
- Far from friends and family
- Fewer employment opportunities
- Small, gossip-driven, communities
- Socially / politically conservative i.e. racism, homophobia

## With some having wildly inaccurate perceptions...

It's far from specialised shops. So if you're looking for a bottle of wine or something, you'd have to drive 200km to get what you're looking for.  
- Year 10 student

Usually the water isn't as clean.  
- Year 11 student

A bad thing would be distance you have to go to buy fuel.  
- Year 11 student

Mining. Travel. And it's often FiFo work.  
- Year 10 student

# Older groups have a greater level of understanding, albeit naive

## Technology, innovation and change

- Drones
- Biotech
- Software and programming
- Automation

Kind of science-related now – a lot of tech they use for it.

- Year 12 student

It's kind of like... not a dying industry but in the industry there's so many machines that automatically do most of the harvesting and everything. So most of those manual labour jobs are being taken away and more just controlling the machine.

- Year 12 student

That's why I said drones, because now you can send drones to do like planting and stuff.

- Uni student

## Challenging “business” of agriculture

- Power of supermarket duopoly
- Pressure from banks during the down times
- Reliance and impact on weather systems over which there is limited control

Big companies – like banks... like how smaller farms are being run into the ground because of Woolies and Coles

- Year 12 student

I guess I get this from the news they usually talk about it... like the issues around. There's kind of like a negative tone towards the smaller businesses. Like pity, almost. I don't know, it's like, poor farmers.

- Year 12 student

## Broader impact on society

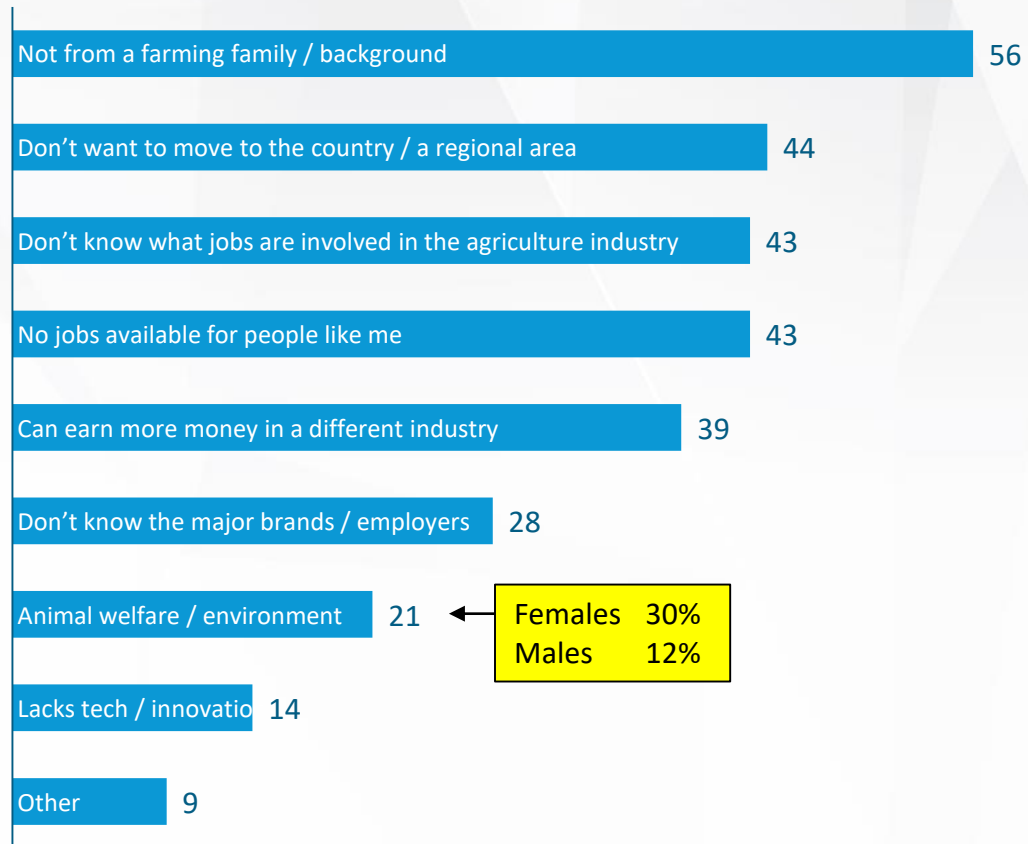
I feel like it's an underappreciated area of work. Like agriculture is like a crucial part of every society out there, but no one really gives them that kind of credit.

- Uni student



# Ultimately agriculture is inaccessible

## Reasons against considering an agriculture career



## The crux of the challenge: Working in agriculture is not “normal”

- Most teenagers want to be normal
- Careers counsellors push them towards “normal”
- Pathways to agriculture aren’t obvious
- Need to normalise a career in agriculture not just for students but all influencers involved

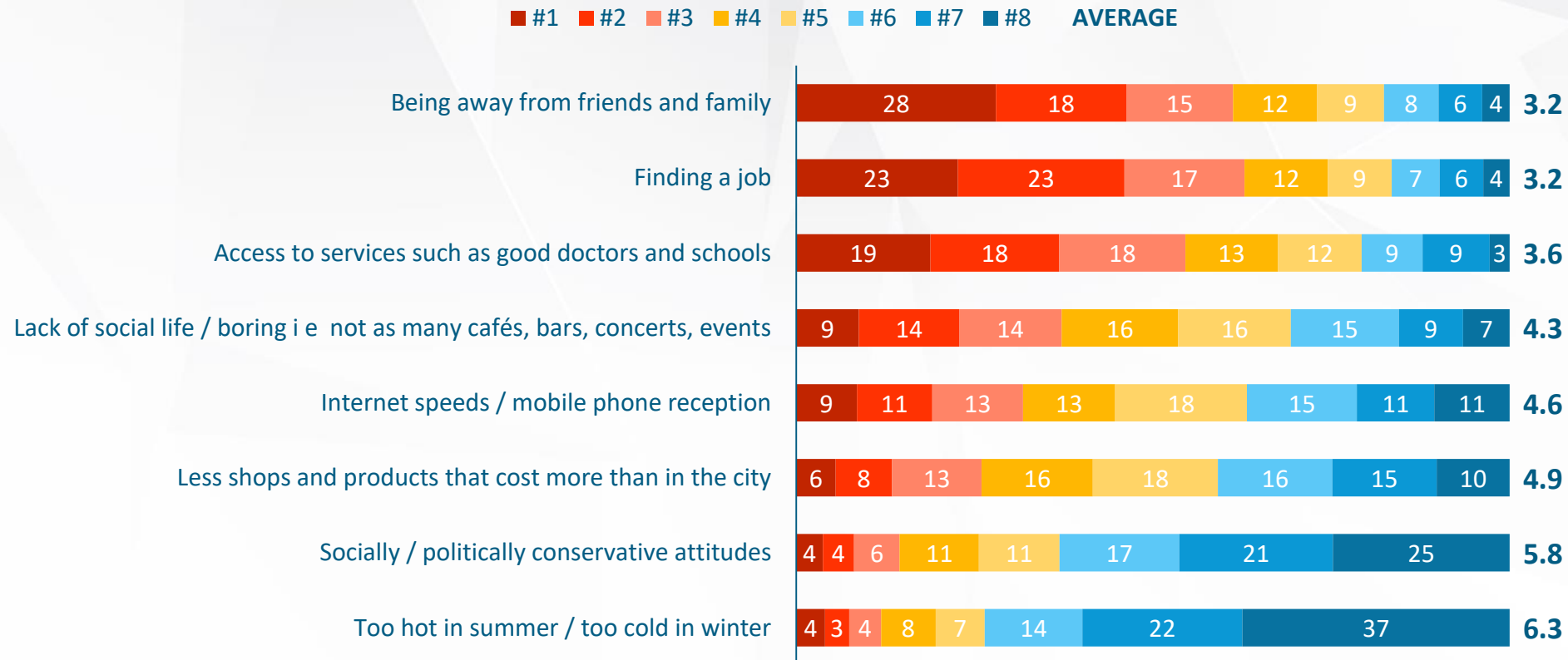
The kind of jobs that they offer [careers counsellors] are really traditional, basic, not outside the box. I wanted to do art but they were just kind of saying, “Oh art, that’s not really the way to go. It’s more of a hobby...” And I said, “I hate everything else that I do”.

I mean they really try and find... they want you to come out of this with a job that you want. They always make you talk about your future. They suggested primary school teaching and what I wanted to teach wasn’t primary school kids, I wanted to teach sport. It seemed like they wanted you to agree with them and say what they wanted you to do.

- Uni students

# In their minds, a career in agriculture isn't just a career but a lifestyle change. Communications need to address their lifestyle concerns in addition to career specific questions

## Concerns about a regional lifestyle (Ranked highest to lowest)



Q. Living away from a capital city can have its challenges. If you were living in a regional area what would be your biggest concerns?

Please rank the following from most to least concerning. [SC]

Base: All respondents n=512

The  
Good  
news

# Older students are better able to grasp the connection between agriculture and many of the world's largest problems and are drawn to this challenge



Those with humanitarian and altruistic personalities can connect with an industry in which they will:

- Ensure the world doesn't go hungry
- Improve practices to limit environmental impacts
- Reduce our reliance on animals and the incidences of animal cruelty
- Use technology to improve the quality of our food and our society

The main thing for me is benefiting not only yourself but society as a whole. So whether it's planning or helping to feed people who don't have much food or improving nutrition for those going through poverty.  
- Year 12 student

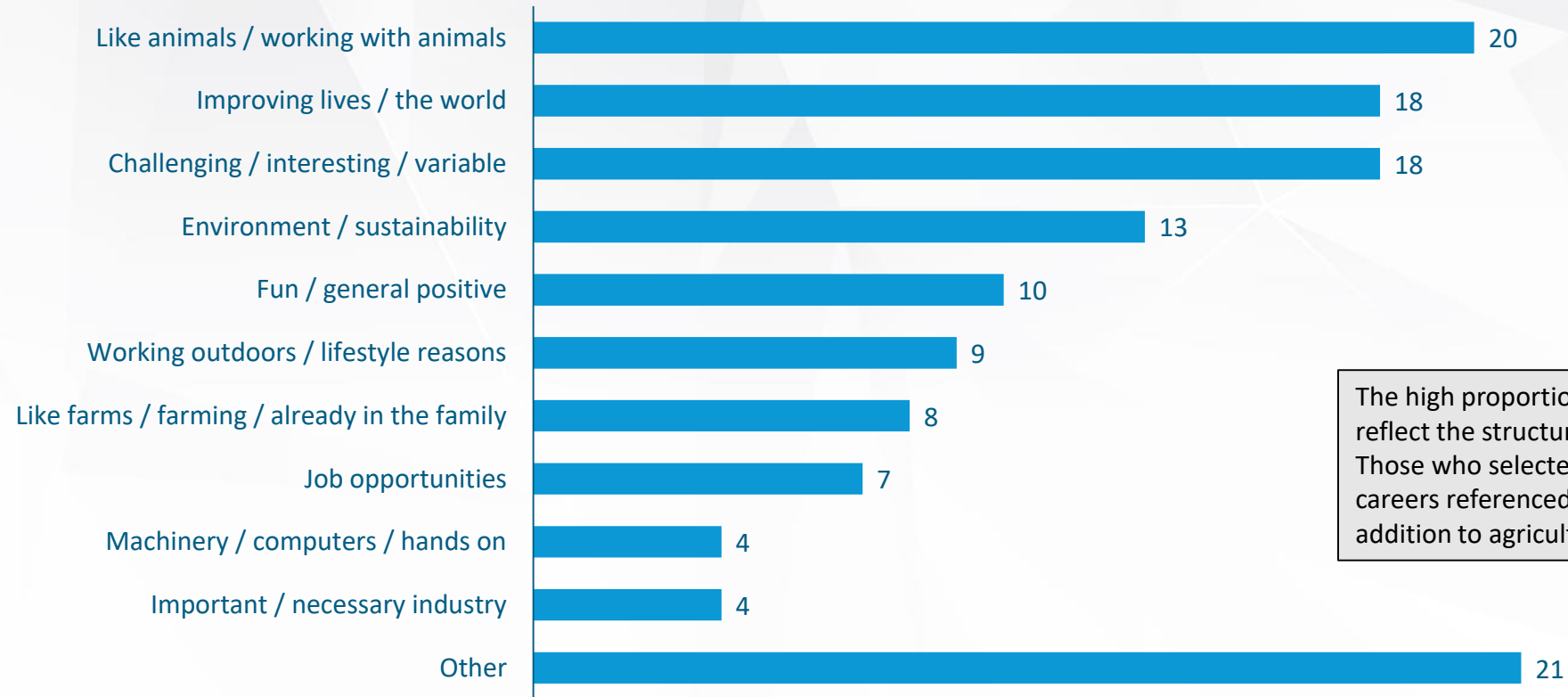


Present a career in agriculture as being a part of the solution; A chance to undertake problem solving and see your work impact the lives of others.



# This humanitarian and problem solving element is strongly present in the survey results

## Reasons for considering an agriculture career (Coded text responses)



# The positives of regional living are an opportunity to target the type of people who are fed up with the stressful elements of city living

In the focus groups, students mentioned:

- Easy access to the natural environment for hiking, swimming, picnics, photography; more broadly regional areas have a general sense of adventure and exploration
- Ability to start a new, more peaceful, less pressured way of life away from things like traffic and media
- A strong sense of community
- Greater freedom than the city
- Gaining independence and meeting new, interesting and diverse people

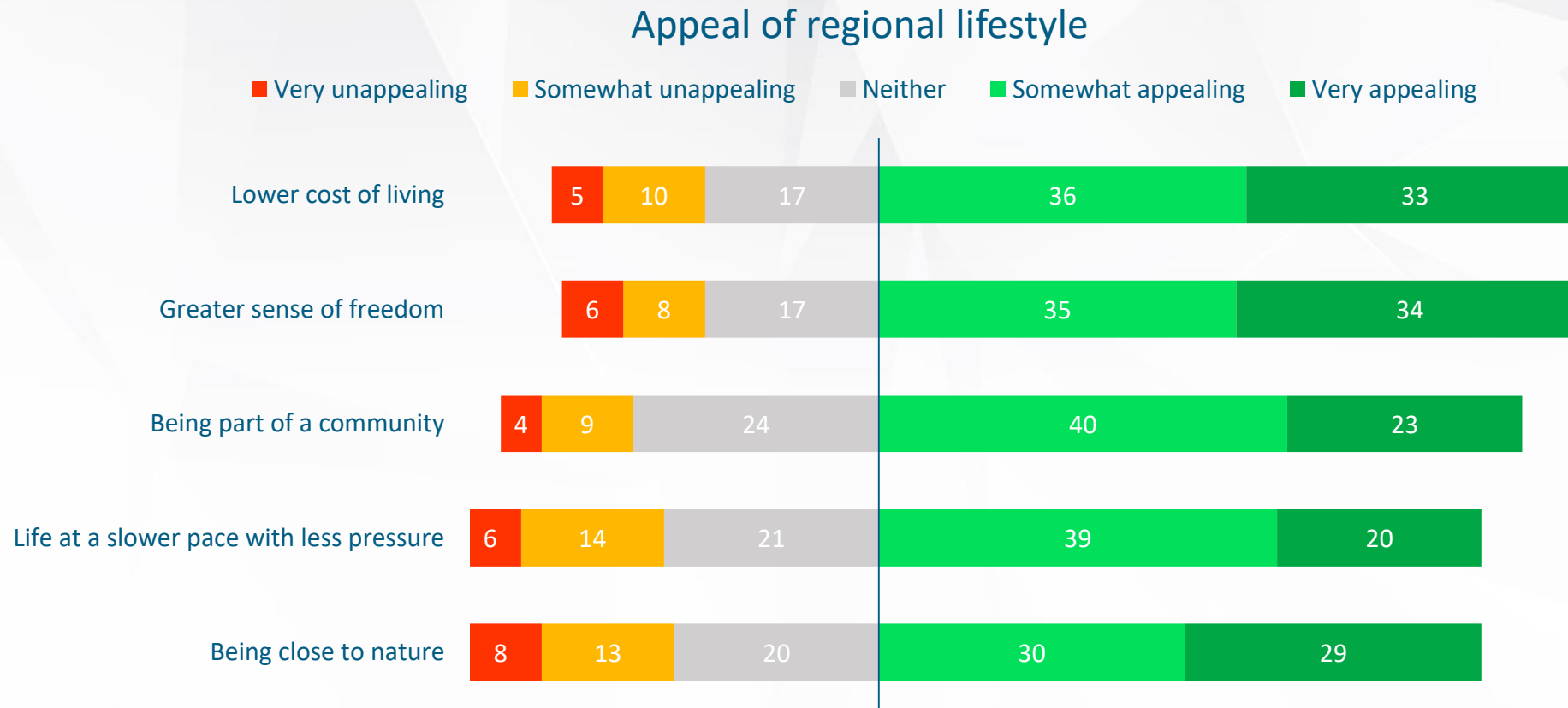
It's good because of the lack of reception. Technology, no one uses it as much. My family has a farm. When I go back there, I barely use my phone and the computer takes like 10 minutes to turn on and the internet is really slow, so you don't even bother. It's a good kind of media isolation.

- Uni student



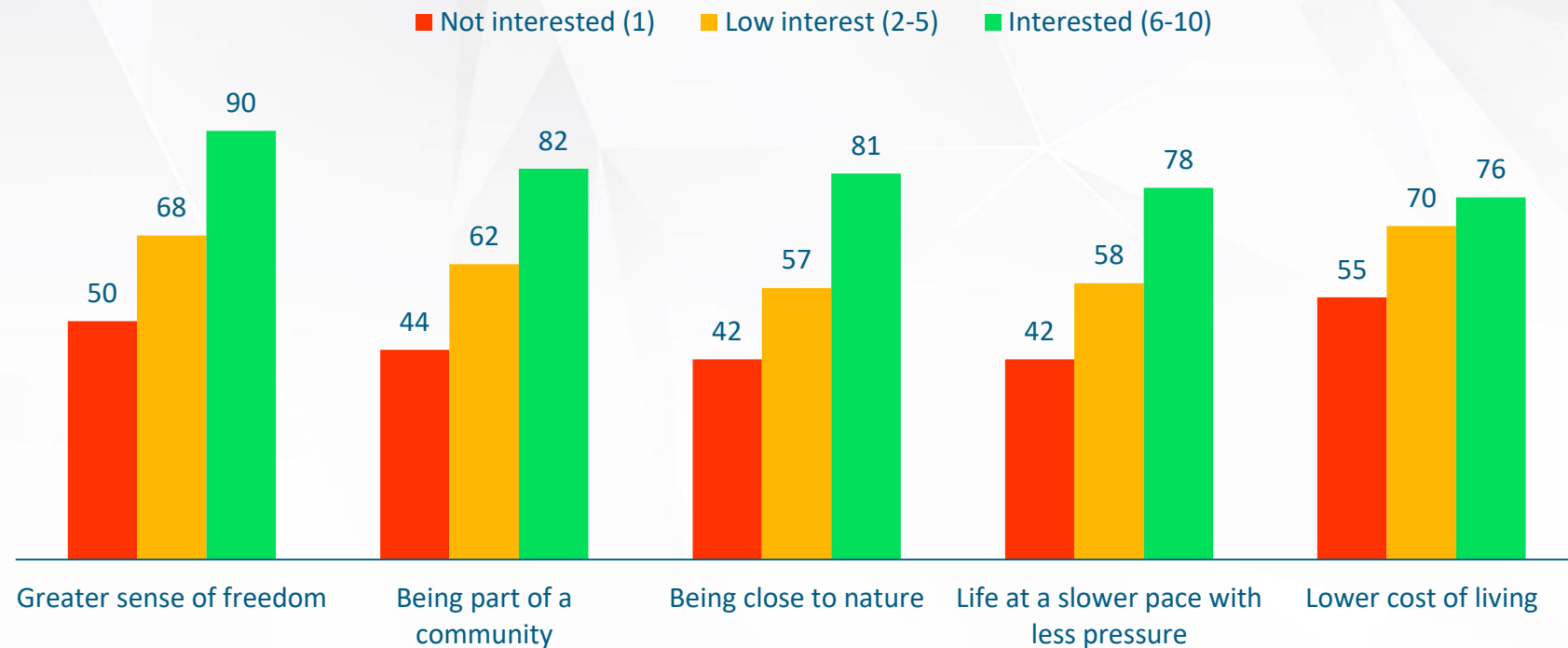
A “tree change” is well documented in older generations and could be leveraged for a young, urban audience who seek freedom and adventure

The survey results identify the lower cost of living and greater sense of freedom as the most positive aspects of regional living, reflecting the increasing financial pressure young people are feeling



# There is a correlation between interest in an agriculture career and appeal of a regional lifestyle, reinforcing the need to address both topics

Appeal of regional lifestyle by interest in an agriculture career



Q. We'd now like you to think about living in a regional area, away from a capital city. For each of the following, please select how appealing / unappealing it is to you. [SC]  
Base: Not interested in ag career n=122; Low interest n=276; Interested n=114





**Connecting  
with the  
audience**

# Within the focus groups, feedback on existing video content highlights the common issues with ag videos targeting this audience

## Negatives

- Reinforces the stereotypes
- Monotone delivery
- Too much talking
- Boring music
- Static imagery
- No “new” news
- Unrelatable (talent too old)
- Too long
- Targeting people already decided on Ag and just need help deciding on which job specifically
- “Feels like a school presentation”
- “Is what you would expect in a government ad”
- “There was a lot of talking so I zoned out”

## Positives

- Real examples of real careers
- Clear opportunities direct from uni
- Gives you pathways to follow
- Achievable



Without the right tone and style, the audience will switch off and miss the positive messages

# There are key considerations to keep in mind when developing videos for a youth audience

## Content



- Shorter (max 30 seconds) but also think about a 10 or 15 second version + 1:30 for those wanting more detail
- Present a combination of lifestyle & career to sell them not just on a job but setting themselves up for a great life
- Include young females and males who they can relate to
- Needs to be about the viewer and the opportunities available to them, not just the person featured and their past
- Requires a series of videos to address individual target audiences and industry barriers:
  - Can't solve all problems with a single piece of comms
  - Some for years 10/11 and others for year 12/uni
  - Some with a generalist approach to trends in the industry others delving into the details of specific careers
  - Present city based options while also highlighting that regional based roles are in high demand

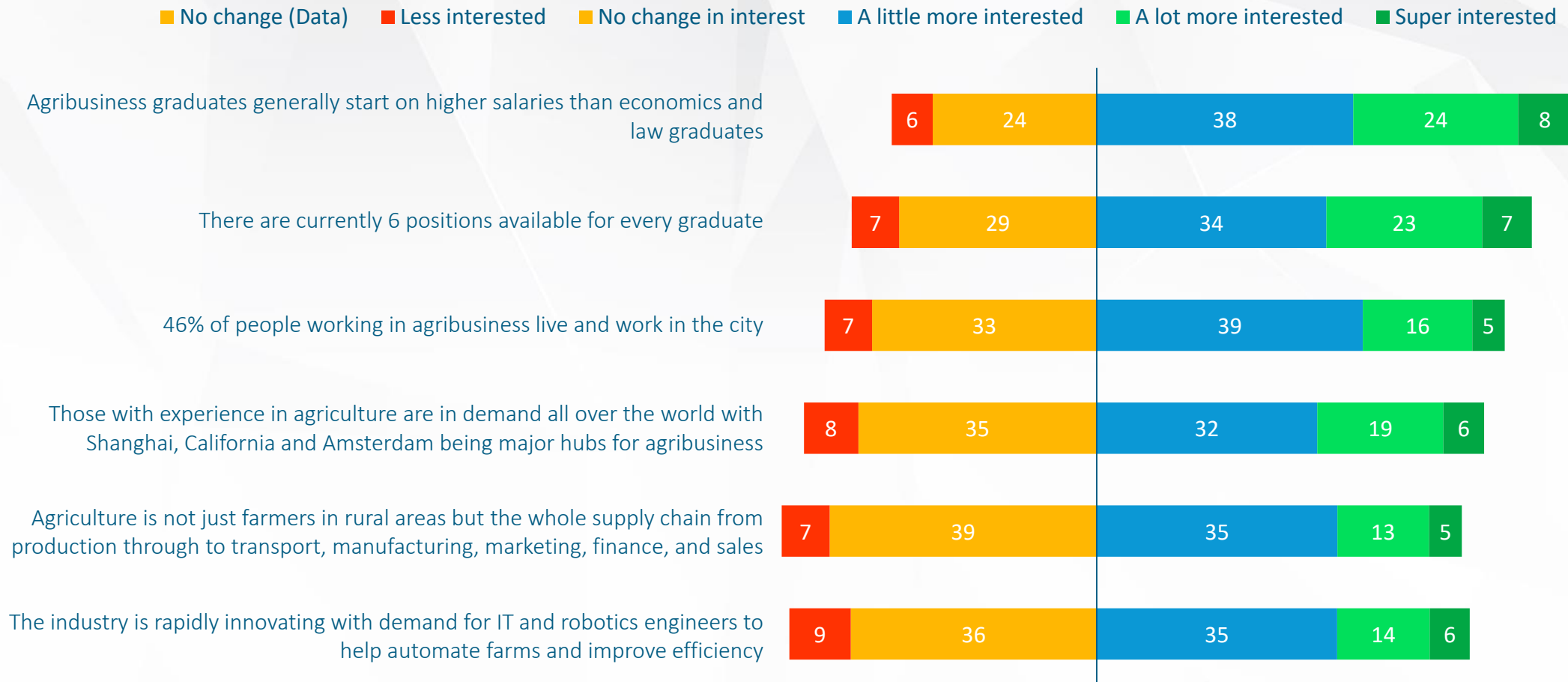
## Style



- Talent should be excited and have presence. Their job satisfaction should be easily apparent.
- Avoid regional / farming clichés and stereotypes, particularly in the way talent is dressed:
  - Akubras
  - Talking while on a tractor or other farm equipment
  - Extreme heat / sun / dryness
  - People working alone
- Audio and video elements that create interest and add variety:
  - Keep shots close with people taking up the frame
  - Avoid long, slow moving, shots of the distance
  - Music that is upbeat and young without being cheesy or trying too hard

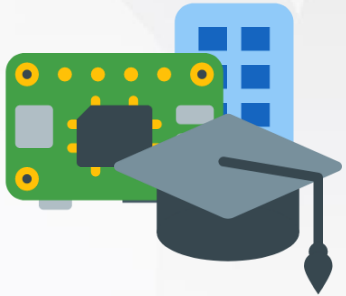
# When given new information in the survey, the facts relating to salaries and availability of graduate roles are most impactful

## Reactions to facts about agriculture





**In the focus groups, these facts were used as stimuli for the students to create their own ads. In their creations they focus on:**



- Technology, the large number of graduate roles available and the proportion of city roles are the three highly consistent messages across all groups

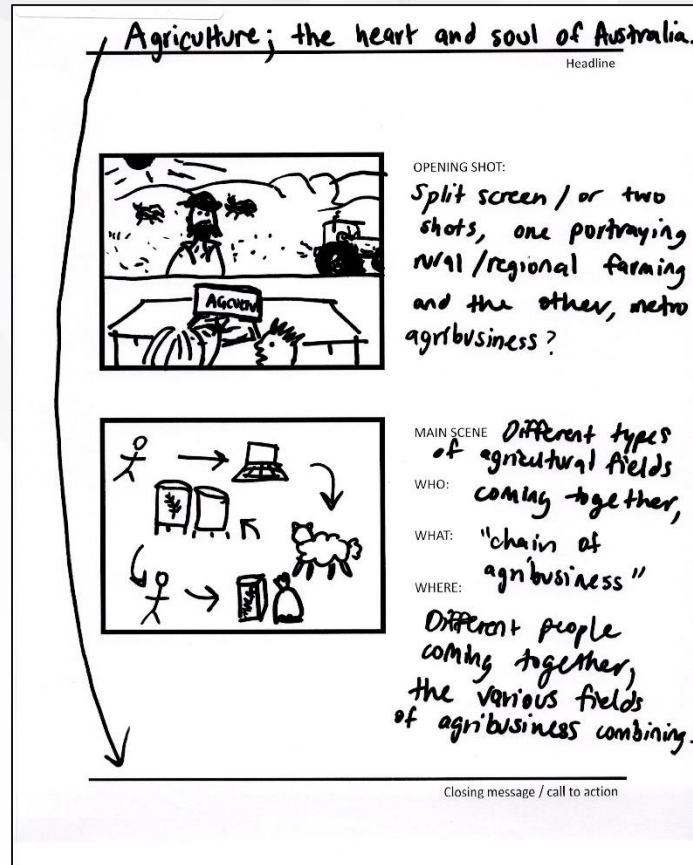


- For year 10 students, all but one mentioned salary in their ads, but year 12 and university students only had a single ad mention it

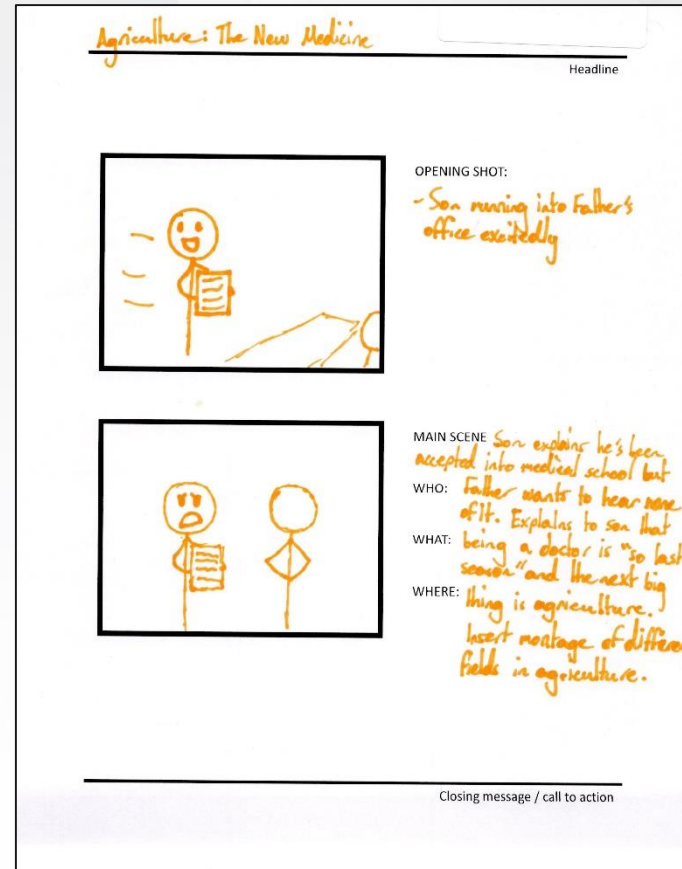


- These older groups developed more sophisticated and varied messaging, delving into the social impacts of an agricultural career, the supply chain and the breadth of roles this represents

## A few favourites...



Tech + Industry importance +  
Breadth of jobs in the supply chain



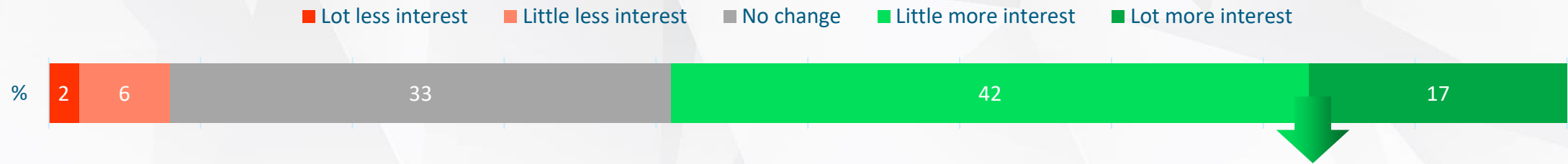
## Consideration of external influences



Tech +  
Breadth of jobs in the supply chain

# A shorthand way to these “facts” is to discuss the major employers in the agriculture industry as this has a large impact on interest

## Change in agriculture career interest after finding out the types of employers



Working in agriculture doesn't necessarily mean working on a farm. Some of the major employers in agriculture include: Kelloggs, Commonwealth Bank, Unilever, Coopers Brewery, Sanitarium, Arnotts and Bayer.

These companies need graduates with law, business, communications, education, chemistry, engineering, math, science and IT degrees.

## Why more interested (Coded text response)



Q. How does knowing these brands are involved in agriculture, and have jobs available for university graduates impact your perceptions of career opportunities in agriculture?

Base: All respondents n=512

Q. Why does knowing these brands are involved make you more interested in agriculture?

Base: Those who are more interested n=310

## The link between knowledge and interest is also apparent in the open ended responses

I've never not enjoyed agriculture but don't think there's much IT in agriculture

Not sure there's many careers / jobs [in agriculture] for someone with a business management & accounting degree

It's not that it [agriculture] is unappealing. It's that I don't know what agriculture has to offer. We wouldn't choose something we don't know about.

Have no interest in it due to lack of knowledge about it and it's career paths in school or when any universities come to give presentations

In my school education I do not learn about agriculture so I have limited information about agriculture. So it doesn't even seem like an option.

It's not the brands themselves but the jobs needed and variety of opportunities available [that make it sound more interesting]



# Communication strategies





## Industry needs to take control of its narrative

Specific campaigns can be developed to target students, however the wider media landscape plays an important role in how perceptions of agriculture are formed. Outside of specific campaigns the industry's various PR vehicles need to present the industry as:

- Accessible
- Profitable
- Diverse
- Technologically advanced

No one wants to work for an industry that the news says you're meant to have pity for.

# The attributes of an agriculture career align with students' ideals

So these attributes need to be at the forefront of comms:

- Modern industry that is evolving
- Massive opportunity for graduate roles compared with other industries which have much greater competition
- Salaries that are competitive with other industries
- Career that can provide a sense of achievement
- Make a positive impact on the world



Comms challenge is to marry “What I want in a career” with the opportunities of agriculture without revealing the industry upfront. Need to build engagement and anticipation before dropping the Ag bomb.



Different audiences connect with these attributes in different ways,  
Therefore a range of content is required to allow for content targeting

### Fear drivers



- # grad roles
- Job security

### Interest drivers



- Robotics and tech
- Role diversity via supply chain
- Improving the world

### Both are underpinned by lifestyle



- Firstly, having fun on the job doing something they find rewarding
- But more importantly, living a fun and exciting life (doing the things I love) because I earn the \$ that enable this



**Where to from  
here?**



# There are 4 distinct barriers to overcome: What, Why, How and Where

## Problem

Students don't understand what "agriculture" means in 2017 (and through to 2037)

Students don't think a career in agriculture will provide them with the career experiences they want

Students don't know how to set themselves up for a career in agriculture or perceive major barriers to entry

Moving to a regional area is synonymous with a career in agriculture

## Impact

Creates negative attitudes towards the industry based on a narrow definition of "agriculture = farmer"

Lack of knowledge means they don't understand the full breadth of job types available to them

Without a clear guide to entering the industry students are likely to follow an easier, more obvious path. Perceived barriers to entry also allow them to easily dismiss the industry

An agriculture career is dismissed without understanding or exploring city based roles

## Resolution

Need to educate students about agriculture today and the trajectory for the industry

Need to prove that an agriculture career can give them all the things they are looking for in a career

Providing clear pathways and outcomes makes it easier for students to see the possibility and achievability of a career in agriculture

Recognise their valid concerns about living in a regional area vs. the city but also highlight how they can connect with the values, experiences and lifestyle on offer.

For those strongly tied to the city, focus on city based roles



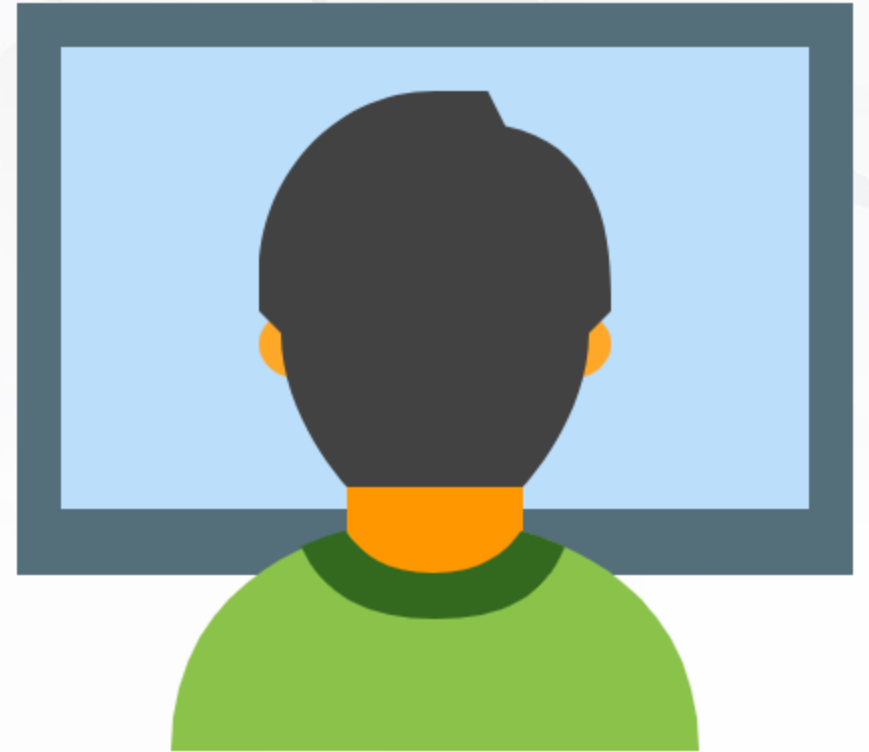
# A psychographic audience profile is starting to emerge



- Yet to have a specific career goal in mind
  - Have a interest area we can tap into:
    - Technology
    - Humanitarian and environment
  - Action / results orientated / hands on
  - Lead an active / outdoors lifestyle
  - Strong sense of values and community
- Importantly, this personality type is gender agnostic and age agnostic, with engagement opportunities from early high school through to senior years and into university

# Taking the message to the audience

1. Agriculture is so far off their radar you have to force it on them
  - This includes educating teachers, counsellors and parents as they are just as important a channel of influence as broadcast media
2. Students won't seek out information you have to take the story to them.
  - “Build it and they will come” is not a viable solution
3. Their knowledge is so basic you need to build over time in small steps
  - Break the challenge into smaller, more manageable objectives that address individual barriers and drivers
4. Measure each milestone along this journey and learn from the success and the mistakes
  - This report and the accompanying event are the first steps

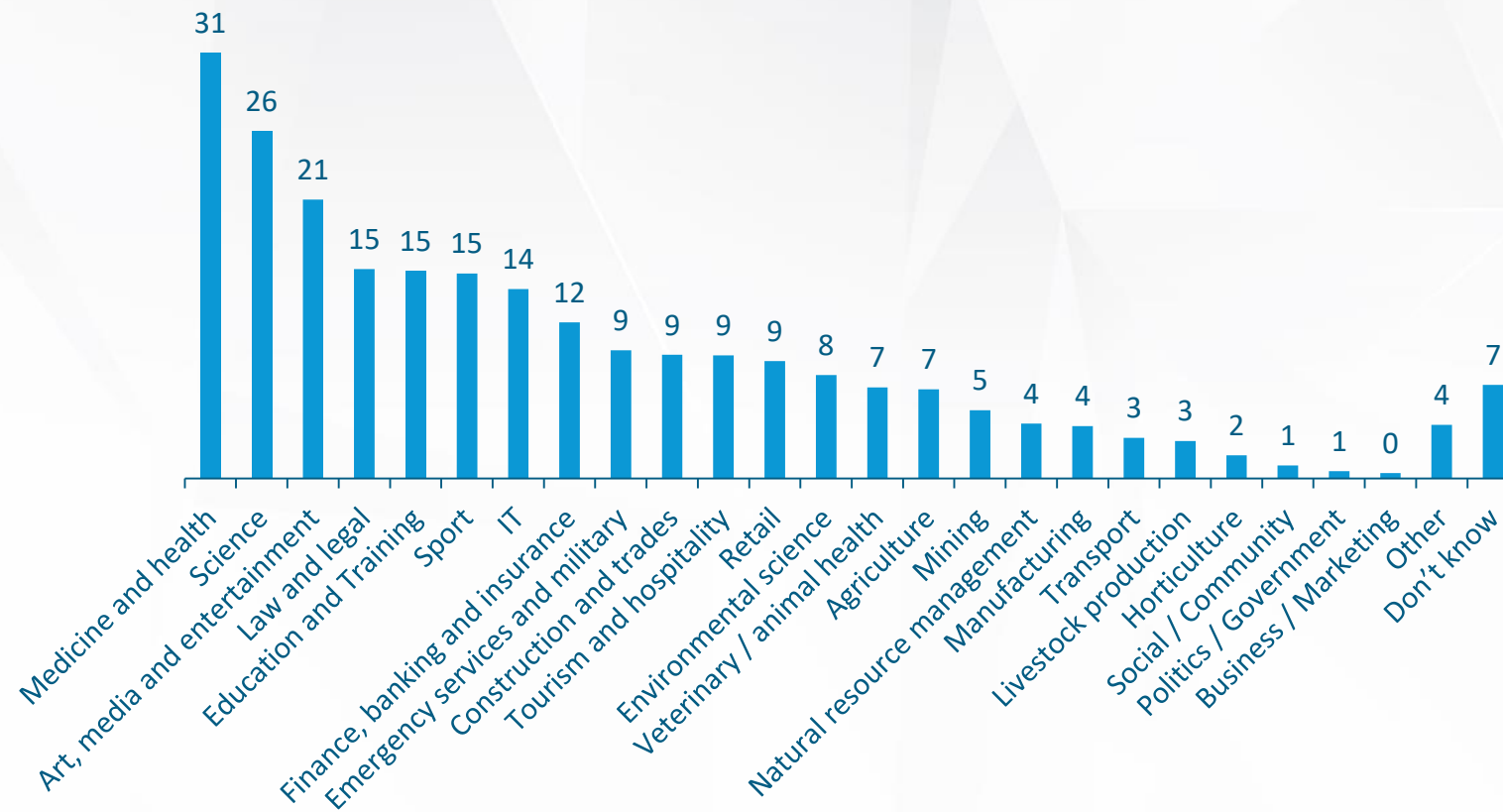


# Appendix

Additional survey and focus group data

# While intentions are highest for Medicine, Science and Media/Entertainment the actual representation of these roles in the workforce suggest intentions do not translate into actual outcomes

Industries interested in working in

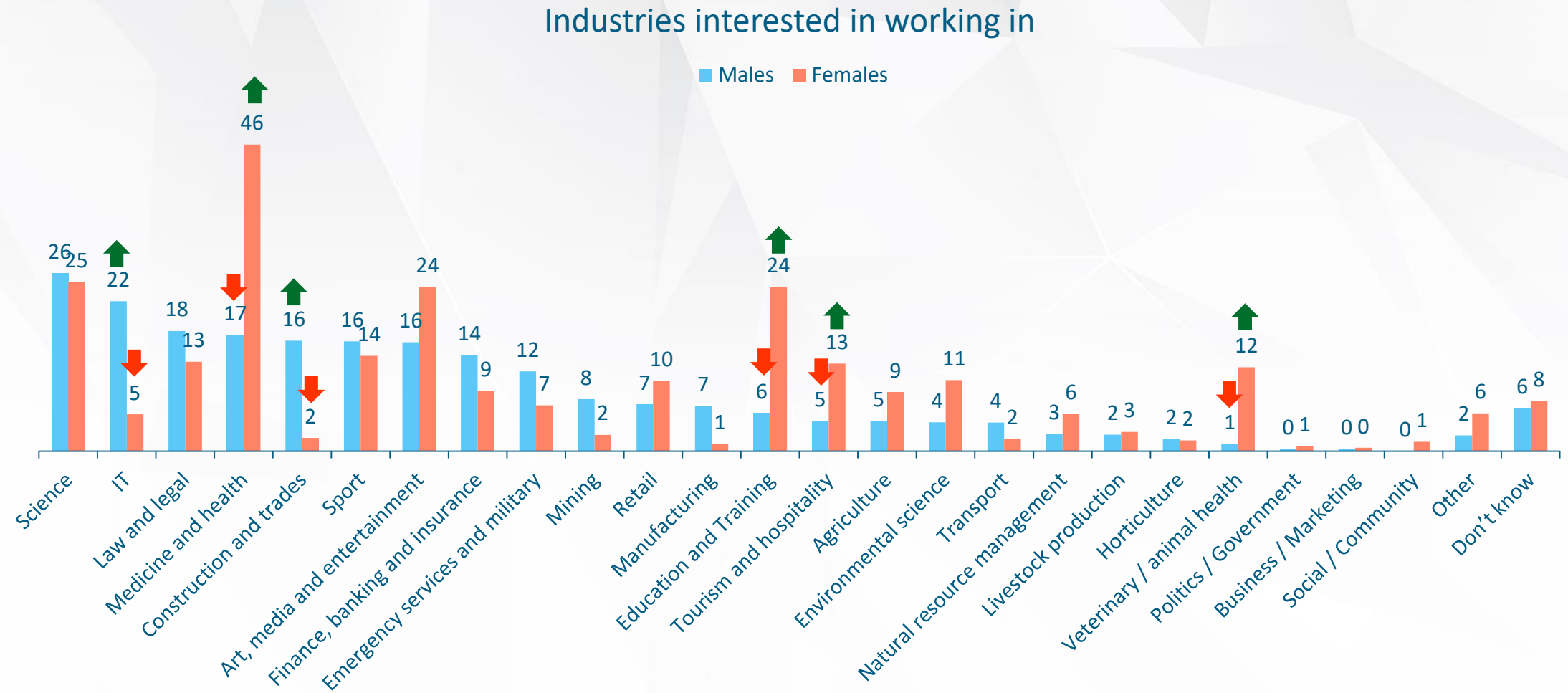


Those who are hardly or not at all certain about their career are significantly more likely (than those who are fairly or very certain) to select:

- Science (34%)
- Sport (27%)
- Education and Training (23%)
- Finance, banking, insurance (21%)

This can be beneficial to the agriculture industry as those with a science, education or finance interest are useful within agribusiness.

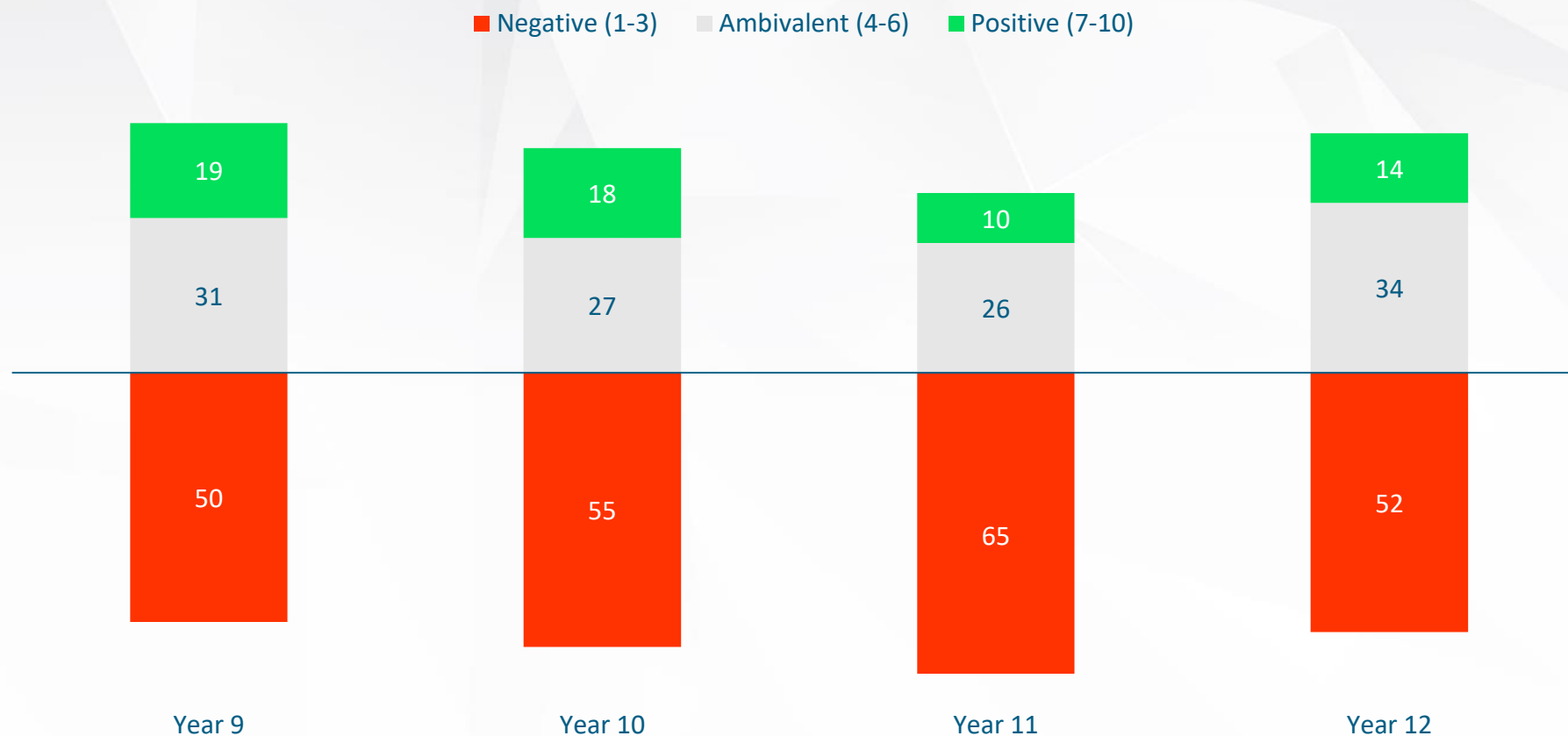
# There are significant gender differences in industry preferences





# Interest in agriculture is relatively consistent across school years

Interest in an agriculture career by education level



# Reasons given against a career in agriculture focus on perceptions of it being boring, involving hard labour, and not a good match for their skills, personality or interests

Reasons against considering an agriculture career



# The “Cotton gap year” tested in the focus groups does not resonate but has elements which can inform a more appealing program



## Positives

- Paid
- Hands on
- Offers an “experience”



## Negatives

- Too long
- Not enough variety in tasks / jobs
- Designed for someone who is already interested in cotton
- Competing against Europe as a destination
- Not a “gap year” as gap year = overseas travel, fun and partying



## How to improve

- Shorter length of time away
- More variety in jobs / roles
- Name change to avoid comparisons to a European gap year
- A “summer gap” between the end of High School and start of University is ideal for both timing and income generation
- Target parents concerned about kids with no direction
- Explore the language and proposition of the ADF’s “One Year of Adventure”





# Telling the story of Gen Y & Gen Z