**From Academia
to the Workforce:**

EXECUTIVE
SUMMARY

APLU Series on Employability Skills
in Agriculture & Natural Resources

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ASSOCIATION OF
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EXECUTIVE SUMMARY

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One of the core missions of public universities is preparing students to enter the workforce. Understanding and meeting the needs of employers and the skills new graduates will take with them into the workplace is vital when developing curricula and degree programs.

In order to redesign curricula and degree programs, administrators of colleges of food, agriculture, and natural resources wanted to consider specific skills and experiences that could be changed to help students meet employer expectations. To assist with this challenge, the Association of Public and Land-grant Universities (APLU) Academic Programs Section[1] commissioned research on specific employability skills—the nontechnical skills used every day in the workforce to ensure the smooth operation of projects and offices. The goal of the research is to provide data-driven insights on employers' needs that university administrators and faculty could consider when changing or updating academic programs.

Over the decades, many organizations and researchers have done research on employability skills, including APLU, the Association of American Colleges and Universities, the National Association of Colleges and Employers, and the Society for Human Resource Management to name a few. What makes this research different is that the focus is on the differences between four stakeholder groups: employers, alumni, faculty, and students. This allows institutions to identify areas where there are disconnects between the groups, so these skills can be explored to improve student outcomes in the workplace. While the study was primarily focused on stakeholders from colleges of agriculture and natural resources, the skills and insights are not limited to these academic programs. Employers in the survey represented industry beyond traditional agriculture and natural resources and the skills examined are applicable to virtually all fields.

To conduct this research, APLU fielded a survey in 2018-2019 through 31 participating universities and partner organizations. The survey consisted of two parts:

1. stakeholders were asked to rate how important a skill was, rate how prepared students were in that skill, and to rank what activities outside the classroom most contributed to learning these skills as reported in *Critical Growth Areas for Students Today*; and
2. answer four open-ended questions around how to better prepare students for navigating ambiguity, change, persistence, and conflict in the workplace as reported in *Navigating Persistence, Ambiguity, Change and Conflict in the Workplace*.

Stakeholder Groups	Number of Respondents
Employers	2,743 (24%)
Alumni	4,800 (42%)
Students	2,514 (22%)
Faculty	1,371 (12%)
Total Valid Responses	11,428

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1. APS is a Section of the Board on Agriculture Assembly, a national organization of public university colleges of agriculture.

Part 1: Skill Gap Ranking

The big takeaways from the first part of the survey were as follows:

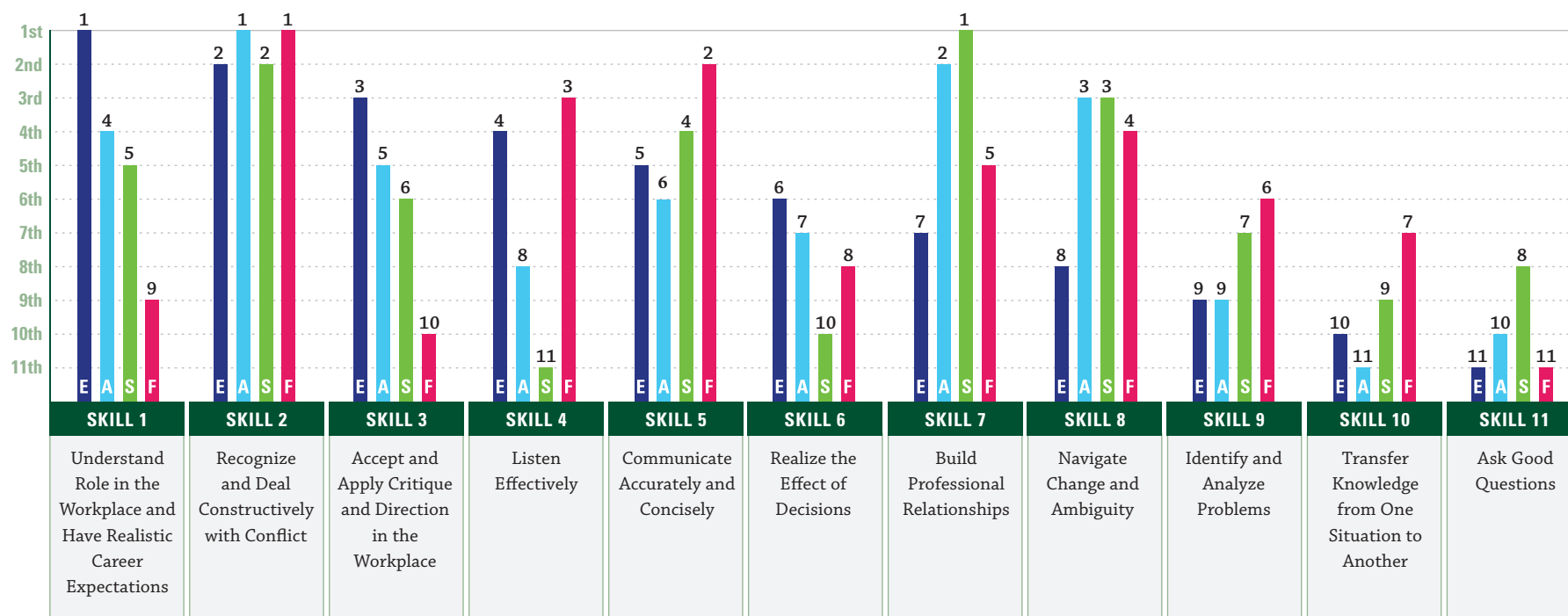## 11 SKILLS IDENTIFIED AS CRITICAL GROWTH AREAS

A 2011 APLU survey identified 42 employability skills that are most important to the four groups. Of those critical growth areas 11 skills had the largest gaps between importance and preparedness among the respondents. The other 31 skills were not chosen for further study because there was a smaller preparedness gap in what employers need and what universities are delivering. That is notable and a sign that universities are on the right track. For the eleven skills surveyed, all showed significant gaps for all stakeholders (employers, faculty, alumni, and students) between the importance and preparedness of students in that skill. These are referred to as importance-preparedness gaps.
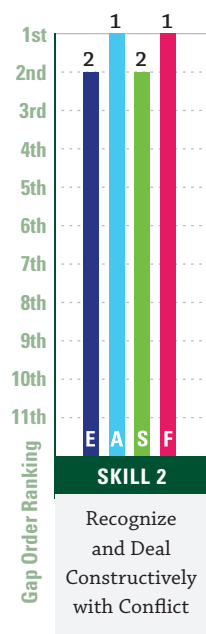
Mean Gap Rank by Stakeholder Group
Ordered from Highest to Lowest Employer Mean Importance-Preparedness Gap

E Employer   A Alumni   S Current Students   F Faculty

	SKILL 1	SKILL 2	SKILL 3	SKILL 4	SKILL 5	SKILL 6	SKILL 7	SKILL 8	SKILL 9	SKILL 10	SKILL 11
	Understand Role in the Workplace and Have Realistic Career Expectations	Recognize and Deal Constructively with Conflict	Accept and Apply Critique and Direction in the Workplace	Listen Effectively	Communicate Accurately and Concisely	Realize the Effect of Decisions	Build Professional Relationships	Navigate Change and Ambiguity	Identify and Analyze Problems	Transfer Knowledge from One Situation to Another	Ask Good Questions

Regarding specific skills, the following can be said:

Navigating Conflict

The only skill in the top three for all stakeholder groups is "Recognize and deal constructively with conflict" in the workplace. This may connect with the differing sense between employers and employees of the role of a new employee in the workplace. What is identified as conflict could also be playing a role.

Gap Order Ranking

Bar chart — SKILL 2
Recognize and Deal Constructively with Conflict
E: 2, A: 1, S: 2, F: 1
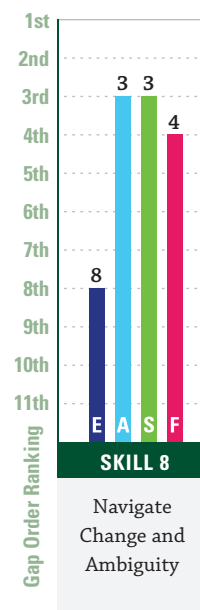
Ambiguity & Change

Alumni, students, and faculty had a higher mean importance-preparedness gap than employers for "Navigating change and ambiguity." Likely, this may be driven by the level of control that employers have over the business or organization versus the control that new or even older existing employees may have in their own work environment.

Gap Order Ranking

Bar chart — SKILL 8
Navigate Change and Ambiguity
E: 8, A: 3, S: 3, F: 4

Role vs. Relationships

Employers and students have different views on what is the largest skill gap. Employers largest skill gap is "Understanding role and expectation in the workplace," whereas students rank "Build professional relationships" as their number one area for improvement. This difference could open the door to conflicts between the two groups but could also offer opportunities for both students and employers to put their best foot forward.

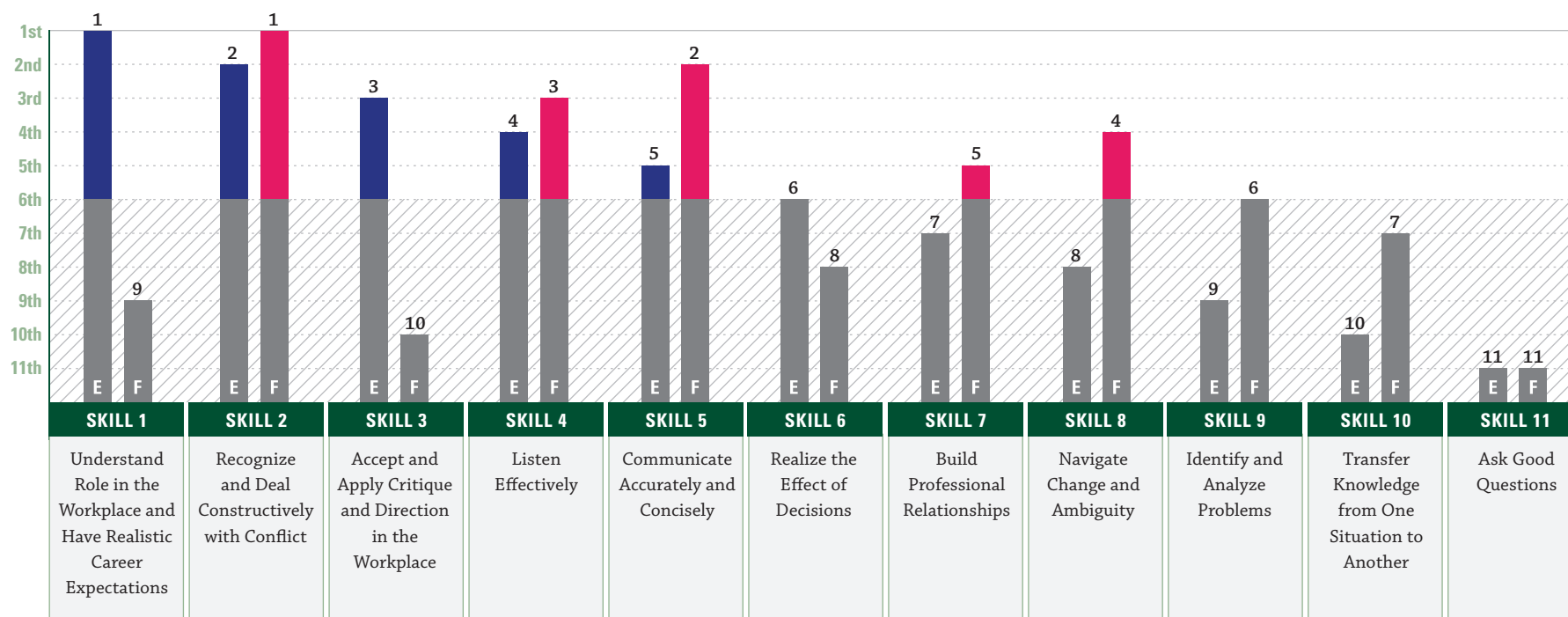## Disconnect Between Employers & Faculty Skill Priorities

There is a disconnect in the priorities of employers and faculty. The top three skill gaps for faculty made the top five skill gaps for employers, but of the top three skill gaps for employers, only one made the top five skill gaps for faculty. The reason this is important is that faculty may teach to the skills they perceive to have the largest gaps.

The largest preparedness gap for employers was for the skill "Understanding role and expectations in the workplace." This varied substantially from faculty for whom this skill placed number 9 of 11 for a gap. Similarly, the third largest gap for employers is "Accepting critique and direction in the workplace" whereas faculty placed this one 10 of 11.

Top 5 Skill Gap Comparison of Employers and Faculty
Ordered from Highest to Lowest Employer Mean Importance-Preparedness Gap
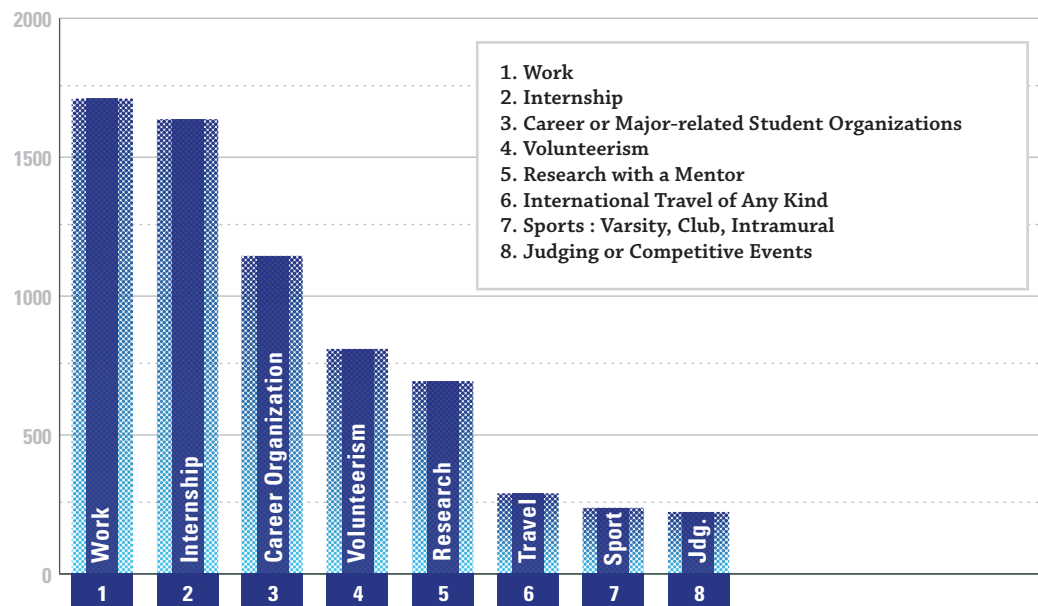
E Employer   F Faculty

	SKILL 1	SKILL 2	SKILL 3	SKILL 4	SKILL 5	SKILL 6	SKILL 7	SKILL 8	SKILL 9	SKILL 10	SKILL 11
Employer (E)	1	2	3	4	5	6	7	8	9	10	11
Faculty (F)	9	1	10	3	2	8	5	4	6	7	11
	Understand Role in the Workplace and Have Realistic Career Expectations	Recognize and Deal Constructively with Conflict	Accept and Apply Critique and Direction in the Workplace	Listen Effectively	Communicate Accurately and Concisely	Realize the Effect of Decisions	Build Professional Relationships	Navigate Change and Ambiguity	Identify and Analyze Problems	Transfer Knowledge from One Situation to Another	Ask Good Questions

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Skill Gap Ranking By Stakeholder Groups

SKILL	Employer	Faculty	Alumni	Students
Understand Role/Structure in the Workplace and Have Realistic Work Expectations	1	9	4	5
Recognize and Deal Constructively with Conflict	2	1	1	2
Accept and Apply Critique and Direction in the Workplace	3	10	5	6
Listen Effectively	4	3	8	11
Communicate Accurately and Concisely	5	2	6	4
Realize the Effect of Decisions	6	8	7	10
Build Professional Relationships	7	5	2	1
Navigate Change and Ambiguity	8	4	3	3
Identify and Analyze Problems	9	6	9	7
Transfer Knowledge from One Situation to Another	10	7	11	9
Ask Good Questions	11	11	10	8

Students and alumni are strikingly parallel in their thinking, at least with regard to their thoughts on the biggest skills gaps. Both groups list the same skills, albeit in different order, in their top three. Besides "Recognize and deal constructively with conflict," students and alumni place "Build professional relationships" and "Navigate change and ambiguity" in their top three skills gaps.

Left: All 11 of the skills studied revealed a statistically significant gap. The gap order, with 1 being the largest, is helpful for understanding priorities by the stakeholder groups. Understanding that the order, or sense of priority, is different, can open up conversations and perspective taking.

Activities to Build Employability Skills - Employer Response Frequency

Employer top college activities looking for on a resume. Total Frequency of Activities Selected: 7845

1. Work
2. Internship
3. Career or Major-related Student Organizations
4. Volunteerism
5. Research with a Mentor
6. International Travel of Any Kind
7. Sports : Varsity, Club, Intramural
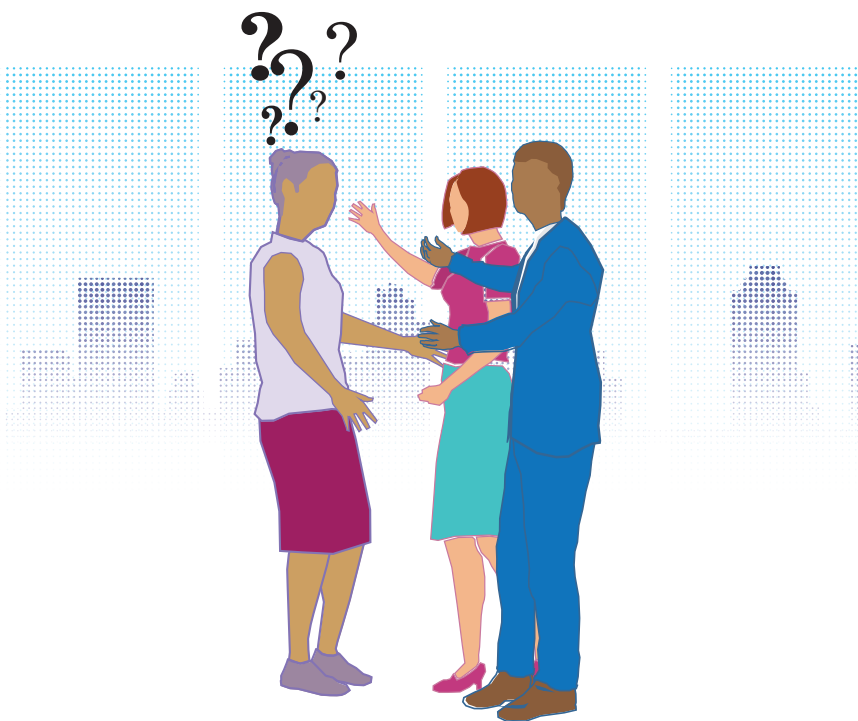8. Judging or Competitive Events

Activities to Build Employability Skills

Students can be taught all these skills, but some lend themselves better to classroom settings than others. Certain extra-curricular activities help prepare students in employability skills. Extra-curricular activities such as work, internships, career-oriented student organizations, volunteerism, and research are cited by many as key actions for students preparing for the workplace.

Part 2: Navigating the Workplace

For the second part of the survey, all stakeholders were asked how to better students for navigating change, ambiguity, persistence, and conflict in the workplace. These were open-ended questions to which researchers received the following number of responses:

How can the ability to "see skills below" be developed in formal and informal settings before beginning a professional career?	Number of Responses
Persistence	6,343
Ambiguity	5,408
Change	5,880
Conflict	5,921
Total Responses	23,552

The deeper dive of this research revealed many findings, but below is quick summary of key takeaways for each skill.

CONFLICT

Break the conflict taboo by teaching people to open conversations, allowing students the opportunity to practice this skill, and helping them build the emotional intelligence to navigate conflict.

PERSISTENCE

Managing expectations of the first job out of college is critical for helping students build persistence, understanding that failure is a growth opportunity, and building the professional and social skills for adult life.

CHANGE

Teaching students to accept that change is the norm is essential. Their foundational knowledge in the discipline provides them with the skills to be an adaptable learner. Cultivating independent thinking can be achieved through stretch experiences that move students out of their comfort zone.

AMBIGUITY

New employees can find the lack of specific direction in the work environment ambiguous. While ambiguity is a normal part of life and work, simple skills such as listening, asking questions, positive attitude and creative thinking help manage ambiguity.

PERSISTENCE

CONFLICT

CHANGE

AMBIGUITY

| CONCLUSION

These are ideas that resonated clearly across the data as important and insightful for navigating persistence, ambiguity, change or conflict. The takeaways are intended to spur conversations about how universities and employers can assist young people as they develop the skills needed to succeed in the workplace. All of the takeaways will require hands-on practice, repetition over a lifetime, and an increasing level of challenge and complexity to develop a depth of skill.

From both parts of the study, much remains to be examined, particularly with respect to how to incorporate these results into formal and informal teaching settings. Further, more exploration and collaboration are needed to strengthen the relationships between academia and employers to improve the transition of new graduates to employment. Make no mistake, however, these skills could be invaluable to alumni as they navigate the working world during their first few years out of college. A smooth transition could improve an alum's view of their alma mater, particularly if the institution made clear the intention of teaching these skills while it was happening.

VIEW EMPLOYABILITY SKILLS CRITICAL GROWTH AREAS:
www.aplu.org/Employability-Skills-Critical-Growth-Areas

VIEW EMPLOYABILITY SKILLS NAVIGATING IN THE WORKPLACE:
www.aplu.org/Employability-Skills-Navigating-in-the-Workplace

VIEW THE EMPLOYABILITY SKILLS EXECUTIVE SUMMARY:
www.aplu.org/Employability-Skills-Executive-Summary

VIEW THE 2011 REPORT:
www.aplu.org/Comparative-Analysis-of-Soft-Skills

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