
Date: September XX, 2021

To: Governor Tony Evers
Members of the ...

From: Department of Workforce Development Secretary-designee Amy Pechacek on behalf of the Wisconsin Agricultural Education and Workforce Development Council

Memorandum: WAEWDC Annual Report SFY2020

Introduction

This memorandum serves as the Wisconsin Agricultural Education and Workforce Development Council (WAEWDC) Annual Report for state fiscal year (SFY) 2020 as required under Wis. Stats. [s. 106.40\(5\)](#). This memorandum includes information about the reformation of WAEWDC, its purpose, the activities of the council in SFY2020, its goals and focus, and the reviews of agricultural education programs provided by Wisconsin's educational institutions. Per Wis. Stat. [s. 106.40\(4\)](#), the Wisconsin Department of Public Instruction, the Wisconsin Technical College System, and University of Wisconsin System shall prepare an annual review of the agricultural education programs under their purview.

Reformation of the Council

After several years of inactivity, the Wisconsin Agricultural Education and Workforce Development Council (WAEWDC or the council) was reformed in 2020 under Governor Tony Evers' leadership to serve a key role in Wisconsin's economic and workforce development efforts. In early 2020, the [Department of Workforce Development](#) (DWD) worked with the Governor's Office, Legislative leadership, the [Department of Agriculture, Trade, and Consumer Protection](#) (DATCP), the [Department of Public Instruction](#) (DPI), and key stakeholders to identify new members to serve on the council. Progress to rebuild the council was slowed by the onset and continuation of the COVID-19 pandemic; however, the reformed council held its first meeting on September 9, 2020.

Under the guidance of DWD leadership, the WAEWDC continued the rebuilding process throughout 2021. At its March 11, 2021 meeting, the council elected a new chairperson, identified the statutorily required executive committee members (DWD Secretary, DATCP Secretary, and DPI State Superintendent or their designees), and elected the remaining executive committee members, three from the private sector and two representatives from the educational institutions. The council membership for SFY2020 is as follows:

Chair: Sara Schoenborn, [Wisconsin Agri-Business Association](#)

Executive Committee:

Amy Pechacek, Secretary-designee, DWD

Randy Romanski, Secretary-designee, DATCP

Sharon Wendt, designee on behalf of the State Superintendent, DPI

Gwendolyn Boettcher, [DeForest School District](#)
Jeff Edgar, [Silver Creek Nurseries, Inc.](#)
Erik Huschitt, [Badger State Ethanol](#)
Betsy Leonard, [Wisconsin Technical College System](#)
Paul Palmby, [Seneca Foods](#)

Members at Large:

Kevin Bernhardt, [University of Wisconsin-Platteville](#)
Gary Besaw, [Menominee Indian Tribe of Wisconsin, Department of Agriculture and Food Systems](#)
Greg Cisewski, [Northcentral Technical College](#)
Alberta Darling, State Senator, 8th Senate District
Jeff Eide, [Blair-Taylor School District](#)
Monica Gahan, [Vincent High School of Agricultural Sciences, Milwaukee](#)
Dale Gallenberg, [University of Wisconsin-River Falls](#)
Tom Gillis, [WI Corn Growers Association](#)
Bob Hagenow, [Rio Community School Board](#)
Pete Kondrup, [Westby Cooperative Creamery](#)
Corey Kuchta, [Wisconsin Public Service](#)
Larry Lee, [Brownfield Ag News](#)
Miranda Leis, [Wisconsin Farm Bureau Federation; CROPP Cooperative/Organic Valley](#)
Lynn Maki, [University of Wisconsin-Madison School of Veterinary Medicine](#)
Howard Marklein, State Senator, 17th Senate District
Dr. Susan May, [Fox Valley Technical College](#)
Shelly Mayer, Dairy farmer/[Professional Dairy Producers of Wisconsin](#)
Loren Oldenburg, State Representative, 96th Assembly District
Kristin Olson, [Cooperative Network](#)
Pam Porter, [Wisconsin Department of Natural Resources](#)
Sam Ridders, Deputy Secretary, [Wisconsin Economic Development Corporation](#)
John Rosenow, Rosenholm Wolfe Dairy Farm/[Cowsmo Compost](#)
Jill Runde, [McFarland School District](#)
Nick Stadnyk, [Rusk County Land and Water Conservation Department](#)
Gary Tauchen, State Representative, 6th Assembly District

In acknowledging the reformation and rebuilding of the council, DWD Secretary-designee Amy Pechacek stated, “We all know there are long-standing workforce challenges across our state, in many different industries and markets. It’s critical that we work together in addressing those challenges with both short- and long-term solutions. This council is one way to build the connections necessary to ensure a bright future for our agricultural industry and our state's economy.”

Purpose of the Council

Pursuant to Wis. Stats. [s. 106.40\(2\)](#), the purpose and functions of the council are to:

1. Increase the hiring and retention of well-qualified employees in industries related to agriculture, food, and natural resources.

2. Promote the coordination of educational systems to develop, train, and retrain employees for current and future careers related to agriculture, food, and natural resources
3. Develop support for employment in fields related to agriculture, food, and natural resources.
4. Recommend policies and other changes to improve the efficiency of the development and provision of agricultural education across educational systems.

In addition, the council shall accomplish the above by advising state agencies on the integration of agricultural education and workforce development systems through the coordination of programs, the exchange of information, and the monitoring and evaluation of programs.

As part of the council's rebuilding efforts this past year, at its June 23, 2021 meeting, the council reviewed the purpose statement used to guide the council's work under its previous iteration. The council agreed that the following should still serve as its purpose statement as the statement remains relevant and summarizes the charge of the council:

"The Wisconsin Agricultural Education and Workforce Development Council provides advice and counsel to state agencies, educational institutions, and the Wisconsin Legislature on matters related to agricultural education and workforce development. In addition, the committee helps attract, develop, and retain the superior workforce required to grow Wisconsin's production agriculture, agribusiness, food, and natural resource sectors."

With the re-adoption of the council's purpose statement, DATCP Secretary-designee Randy Romanski stated, "Wisconsin agriculture is a significant employer in our state, responsible for 435,700 jobs. The diversity of this industry means there is a place for everyone in our agriculture community, from farmers to veterinarians, cheese makers to meat processors, to policymakers and marketing professionals and many more. I'm confident this council will help foster the next generation of Wisconsin agriculture."

Summary of the Council's Activities – SFY2020

As outlined above, SFY2020 (July 1, 2020-June 30, 2021) was a rebuilding year for the WAEWDC. In brief, during SFY2020, the council:

- Identified and appointed new members.
- Held three full council meetings virtually due to the circumstances of the COVID-19 pandemic.
- Elected a chairperson and an executive committee.
- Re-adopted its statement of purpose.
- Conducted goal setting activities for its focus and work in SFY2021.

At the March 2021 council meeting, Secretary-designee Pechacek and Secretary-designee Romanski provided introductory remarks and brief presentations highlighting provisions in Governor Evers' [2021-2023 Executive Budget](#) related to the work of DWD and DATCP and other key provisions that intersect with agricultural education and workforce development. In addition, the council heard a presentation from late DPI staff member, Jeff Hicken - Education Consultant for Agriculture Education and FFA, about the status of Wisconsin agriculture, food, and natural resource education and the [Wisconsin Association of FFA](#). Lastly, council members affiliated with K-12 education provided report outs on the work their schools or organizations are doing to connect youth to agricultural education or programs related to agricultural education or agricultural workforce development.

In advance of the council's June 23, 2021 meeting, Chair Schoenborn conducted a survey with all council members. The survey questions were designed to help council members evaluate possible shared goals, what is needed to accomplish those goals, and how the council moves forward, together. Survey results were compiled and presented at the June 2021 council meeting.

Through robust discussion at the June 2021 meeting, the council reached consensus on its top three priority goals for SFY2021. The goals, synthesized through the ideas generated and priorities identified by the council, will serve as the council's north star as the council continues rebuilding and takes on projects that fulfill its charge. The three key goals are as follows:

1. Support agricultural education instructors and find effective ways to reach every student to highlight the opportunities available in agriculture in a positive, purposeful way.
2. Partner with DPI to embrace and promote the development of a statewide agriculture pathway.
3. Research current trends, evaluate established perspectives, and develop a branding, marketing, and public outreach plan for careers in agriculture.

As the council worked to identify the three key priority goals above, the following broader goal themes emerged. As the council works to develop projects to implement the three goals, the broader goals here, and those summarized in the survey results, can be used to supplement and strengthen the council's focus:

- Identify best practices; clarify resources as to lay path for others to follow.
- Develop or strengthen an Agricultural Apprentice Program.
- Help create a viable pool of quality and prepared workers to engage in the vibrant Wisconsin agriculture economy by providing rewarding careers.
- Better understand alignment and pathways for students at all levels of education - Increase the number of graduates with post-secondary training focused on the agriculture career cluster.
- Ensure all students in the state have access to high quality agriculture education programs (also known as Agriculture Career Pathways).

Lastly, the survey and subsequent discussion helped the council to also identify some of the current challenges related to agricultural education and workforce development. Examples of challenges identified include:

- The current workforce shortage in agriculture and agricultural education, combined with competition for employees with other industries like healthcare and manufacturing.
- Old paradigms about the industry that need to be debunked.
- Finding job seekers in rural areas, and with the skills needed for agricultural work.
- Not as many students are familiar with agricultural industries as have been in the past.

As the council moves forward with implementation of its goals in SFY2021, additional challenges will be identified to inform future goal setting. "Wisconsin is fortunate to have a vibrant agriculture industry," said WAEWDC Chair Sara Schoenborn. "There is so much to be proud of about the innovation and dedication we see each day in our state. I'm honored to lead this council as we work with government and industry to support and encourage a strong agricultural workforce for years to come."

Annual Agriculture Education Program Reviews

Department of Public Instruction Review

Agriculture Education in Wisconsin's PK-12 Public Schools

Agriculture education continues to prepare students for careers in the agriculture industry, while developing students' leadership skills through FFA and their Supervised Agriculture Experience (SAE). Today's agriculture education departments have developed a comprehensive structure that includes areas such as biotechnology, veterinary science, alternative energy, food science, horticulture, and landscaping. With such variety, students are being prepared for a variety of careers and opportunities in agriculture.

Program Status

- The Wisconsin Department of Public Instruction (DPI) is pursuing the development of an Agriculture Career Pathway. This pathway would be developed at the statewide and made available for regional adoption and would join the list of other career pathways already developed in high skill, high wage, and in demand occupational areas. More information on Regional Career Pathways can be found at: <https://dpi.wi.gov/pathways-wisconsin>
- Over 19,800 agriculture education students are also members of the Wisconsin Association of FFA. Despite the pandemic and disruption to events and activities, membership decreased only slightly, as demonstrated in chart below:

Year	FFA Membership
2018-19	20,830
2019-20	21,273
2020-21	19,804

- Over 47,700 students, grades 6-12 took at least one agriculture course. The table below demonstrates the enrollment breakdown by race:

Race	Enrollment
Asian	558
Black-African American	1435
Hispanic	3066
American Indian Alaskan Native	607
Native Hawaiian-Pacific Islander	20
White	40802
Two or More	1194
Total	47,682

- DPI continues to implement an agriculture/science equivalent credit process to award science credits for agriculture courses.
- The implementation of career clusters and pathways in Agriculture, Food, and Natural Resources, as well as Science, Technology, Engineering, and Mathematics, (STEM) fields, expands career development opportunities and helps transition from secondary to post-secondary education.

Agricultural Education Challenges - Pre-K through 12 in Public Schools

- Shrinking supply of qualified agriculture education teachers continues to be a challenge.

- Expanding agriculture education programs in Wisconsin.
- Expanding agriculture education programs in urban school districts.
- Sustaining rural agriculture education programs during periods of declining Pre-K-12 enrollments.
- Promoting quality curriculum and instructional facilities for an agriculture education program to meet the STEM needs.

Wisconsin Technical College System Review

Agricultural Education in Wisconsin's Technical Colleges

The Wisconsin Technical College System (WTCS) is comprised of 16 individual colleges across the state making up the system, enrolling more than 300,000 people each year. The colleges provide 49 Campuses and facilities to meet students where they are demographically, serving every community in Wisconsin, large or small, urban or rural. The technical colleges have a long history of offering high quality programs in agriculture and natural resources, offering 500 programs awarding two-year associate degrees, one- and two-year technical diplomas, as well as short-term technical diplomas and certificates.

The mission of the WTCS is to deliver skills training that recognizes the rapidly changing educational needs of residents to keep current with the demands of the workplace. This is accomplished through the creation of guided career pathways, dual credit opportunities for students in high school to receive college credit, workforce development, and utilizing disaggregated student success data to allow leadership and faculty to create opportunities for business and industry.

Students of the WTCS may be right out of high school, or adults seeking their first college education, additional professional development or are looking for second careers or a fresh start from the justice system. They differ in (age, gender, race, and socio-economic status), and may have goals to work while attending classes such as in an apprenticeship, improve their skills for their current job, graduate from a program of study and go right out into the workforce or transfer to a four-year college for additional education.

Program Status

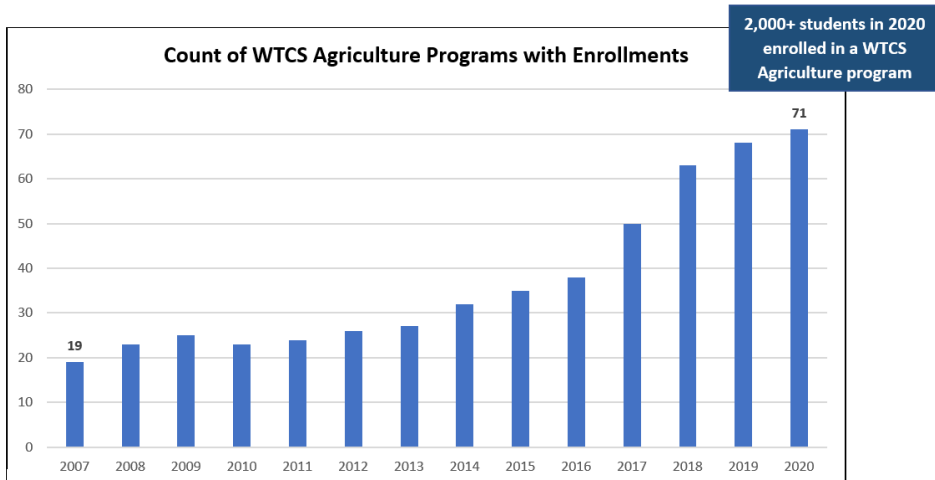
Programs in the Agriculture and Natural Resources Career Cluster teach the production, processing, marketing, distribution, financing, management, and development of agricultural commodities and resources including food, fiber, wood products, natural resources, renewable energy and other plant and animal products/resources.

Pathways in the cluster include:

- Agribusiness Systems
- Environmental Science Systems
- Food Products & Processing Systems
- Power, Structural & Technical Systems
- Plant Systems

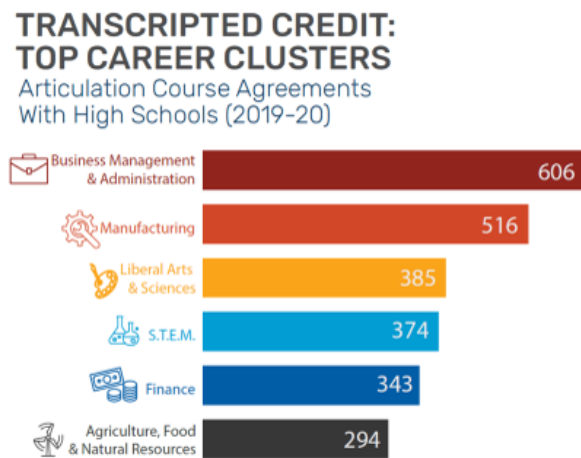
In the 2019-2020 school year, 2000+ students were enrolled in 71 agriculture and natural resources programs. This is an increase of 52 programs from 2007. (Figure 1.)

***Figure 1. 2020 WTCS Agriculture Programs with Enrollments**



In high schools throughout the state, students in vocational agriculture courses can earn technical college credits while still in high school. Students get a jump-start on their post-secondary education by taking classes such as Animal Science, Greenhouse Management, and Plant Science. In the 2019-2020 school year the WTCS had 294 articulation agreements in the Agriculture, Food, Natural Resources cluster. (Figure 2.)

***Figure 2. WTCS Transcribed Credit Career Cluster**



Employment Opportunities for Technical College Graduates

WTCS conducts graduate follow-up surveys six months after graduation on graduate’s success rate finding employment as well as median starting salary. Graduates from agriculture programs in WTCS find great success at being employed in their chosen field. (Figure 3.) For agriculture programs, the 2020 survey indicates that 93 percent of the Wisconsin Technical College System graduates who filled out the survey were employed, and 87 percent were employed in an agriculture-related field. The median starting salary for these graduates was \$35,097. These numbers show the excellent employment opportunities for technical college graduates.

***Figure 3. WTCS Graduate Outcomes for 2020 Agriculture Program Graduates**

WTCS Graduate Outcomes for 2020 Agriculture Program Graduates

	Agriculture Program Graduates
% Employed	93%
% Employed Related	87%
Employed Related Median Annual Salary	\$35,097
% Employed in Wisconsin	92%
% Satisfied with Training Received	96%

WTCS Ag. Program Graduates Continuing Education Outside of the WTCS

7% (41 graduates) of the 2017-18 agriculture program graduates continued their education outside of the WTCS after graduation within one year. The top three colleges for WTCS agriculture program graduate transfers include UW-Platteville, UW-River Falls, and UW-Stevens Point.

University of Wisconsin System Review

Agricultural Education in Wisconsin's Public Universities

Wisconsin agriculture and associated industries provide 435,700 jobs or 11.8 percent of the state's employment and contributes \$104.8 billion annually to the state's economy. Career pathways associated with these economic engines include Agribusiness, Animal Systems, Environmental Services, Food Products and Processing, Natural Resources, Plant Systems, and Power, Structural and Technical Systems.¹ Recruiting and educating students for these professions is vital to growth of the Wisconsin economy. Baccalaureate programs that prepare students for professional careers in agriculture and natural resources are offered by UW-Madison College of Agricultural and Life Sciences (CALS); UW-Platteville School of Agriculture (SOA); UW-River Falls College of Agriculture, Food and Environmental Sciences (CAFES); and UW-Stevens Point College of Natural Resources (CNR).

Program Status

Based on data from the "[Food and Agricultural Education Information System 2021](#)", undergraduate enrollment in colleges and schools of agriculture in 2020 at UW-Platteville, UW-River Falls, and UW-Stevens Point, plus enrollment data from UW-Madison in 2018 (newer data was not yet available at the time of this report) was 4,791 students. This does not include biology and life sciences students. This is a 12 percent decrease across all institutions since 2015 at the time of the last WAEWDC Annual Report, when total enrollment was 5,449 students.

Academic areas with increased enrollment since 2015 include Agricultural Education/Studies (+5.0%), Animal Systems (+4.0%), Environmental Services (+4.6%), and Power, Structures and Technical Systems (+23.4%). Programs with decreased enrollment compared to 2015 include Agribusiness Systems (-21.7%), Plant Systems (-34.9%), Food Products and Processing (-4.2%), Natural Resources Systems (-20.0%), Agricultural Communications and Journalism (-22.6%), and Other Agricultural Programs (-18.2%). See chart below for more enrollment data.

¹ According to the [Wisconsin Agricultural Statistics](#) provided by the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

Career Cluster and Academic Program	UW Institution	Upper class Undergraduate Fall Enrollment			Graduates		
		2019	2020	% Chng	2018	2019	% Chng
<i>Agriculture, Food and Natural Resources</i>							
<u><i>Agribusiness Systems</i></u>							
Agribusiness Management	UW-Madison	56	53	-5%	40	19	-53%
Agribusiness	UW-Platteville	100	106	6%	73	53	-27%
Agribusiness	UW-River Falls	107	113	6%	28	44	57%
Agriculture & Applied Economics	UW-Madison	38	29	-24%	13	19	46%
<i>Agribusiness Systems Totals</i>		301	301	0%	154	135	-12%
<u><i>Agricultural Education & Agricultural Studies</i></u>							
Agriculture Education	UW-Platteville	38	29	-24%	23	15	-35%
Agriculture Education	UW-River Falls	52	52	0%	24	22	-8%
Agricultural Studies	UW-River Falls	17	19	12%	6	9	50%
<i>Agricultural Education & Agricultural Studies Totals</i>		107	100	-7%	53	46	-13%
<u><i>Animal Systems</i></u>							
Animal Science	UW-Madison	75	76	1%	39	26	-33%
Animal Science	UW-Platteville	83	76	-8%	47	43	-9%
Animal Science	UW-River Falls	309	357	16%	125	118	-6%
Dairy Science	UW-Madison	50	40	-20%	15	19	27%
Dairy Science	UW-River Falls	72	60	-17%	27	29	7%
Poultry Science	UW-Madison	0	0	N/A	0	1	N/A
<i>Animal Systems Totals</i>		589	609	3%	253	236	-7%
<u><i>Environmental Service Systems</i></u>							
Community & Environmental Sociology	UW-Madison	45	38	-16%	25	15	-40%
Conservation/Land Use Planning	UW-River Falls	59	59	0%	26	24	-8%
Environmental Science	UW-Madison	136	128	-6%	43	54	26%
Environmental Science	UW-River Falls	29	33	14%	8	10	25%
Geology	UW-River Falls	21	21	0%	5	9	80%
Reclamation, Environment, & Conservation	UW-Platteville	24	26	8%	8	12	50%
Resource Management	UW-Stevens Point	181	178	-2%	90	81	-10%
Sustainable Management	UW-River Falls	10	19	90%	4	5	25%
<i>Environmental Service Systems Totals</i>		505	502	-1%	209	210	0%
<u><i>Food Products & Processing Systems</i></u>							

Food Science	UW-Madison	71	65	-8%	26	29	12%
Food Science & Technology	UW-River Falls	16	24	50%	2	2	0%
Food Products & Processing Systems Totals		87	89	2%	28	31	11%
Natural Resource Systems							
Fisheries & Water Resources	UW-Stevens Point	140	118	-16%	61	61	0%
Forestry	UW-Stevens Point	167	153	-8%	69	67	-3%
Forest Science	UW-Madison	19	14	-26%	13	8	-38%
Paper Science	UW-Stevens Point	28	38	36%	9	5	-44%
Wildlife	UW-Stevens Point	156	169	8%	64	55	-14%
Wildlife Ecology	UW-Madison	49	55	12%	18	16	-11%
Natural Resource Systems Totals		559	547	-2%	234	212	-9%
Plant Systems							
Agronomy	UW-Madison	16	9	-44%	6	5	-17%
Crop & Soil Science	UW-River Falls	39	35	-10%	17	18	6%
Entomology	UW-Madison	14	16	14%	5	4	-20%
Environmental Horticulture	UW-Platteville	20	23	15%	9	9	0%
Horticulture	UW-Madison	37	28	-24%	7	14	100%
Horticulture	UW-River Falls	32	27	-16%	12	8	-33%
Landscape Architecture	UW-Madison	31	34	10%	16	16	0%
Plant Pathology	UW-Madison	13	13	0%	6	3	-50%
Soils	UW-Madison	8	4	-50%	2	4	100%
Soil & Crop Science	UW-Platteville	42	47	12%	20	17	-15%
Soil Science	UW-Stevens Point	52	43	-17%	30	25	-17%
Plant Systems Totals		304	279	-8%	130	123	-5%
Power, Structures & Technical Systems							
Agricultural Engineering Technology	UW-River Falls	29	18	-38%	20	20	0%
Biological Systems Engineering	UW-Madison	176	176	0%	66	60	-9%
Power, Structures & Technical Systems Totals		205	194	-5%	86	80	-7%
Agriculture, Food and Natural Resources Totals		2657	2621	-1%	1147	1073	-6%
Biology & Life Sciences							
Biochemistry	UW-Madison	479	461	-4%	145	164	13%
Biology	UW-Madison	857	877	2%	376	334	-11%
Genetics	UW-Madison	271	282	4%	79	79	0%
Life Sciences Communication	UW-Madison	137	137	0%	47	49	4%
Microbiology	UW-Madison	188	191	2%	64	71	11%
Nutritional Sciences	UW-Madison	174	160	-8%	62	63	2%

Biology & Life Sciences Totals	2106	2108	0%	773	760	
Agriculture, Food and Natural Resources plus Biology & Life Sciences Totals	4763	4729	-1%	1920	1833	-5%

Employment Opportunities for University Graduates

The career outlook remains strong for new college graduates possessing baccalaureate and graduate degrees in agriculture. According to the U.S. Department of Agriculture’s National Institute of Food and Agriculture (NIFA), U.S. college graduates can expect approximately 59,400 job opportunities annually between 2020 and 2025, which is 2.6% growth from the previous five years. The [NIFA report](#) provided the following statistics of jobs, types of jobs and expected graduates.²

	Number of Jobs, 2020-2025	Percent of Total Agriculture Jobs	Number of Expected Graduates
Management and Business	24,700	42%	25,700
Science and Engineering	18,400	31%	17,100
Food and Bio Materials	7,900	13%	7,900
Education, Communication and Government Service	8,400	14%	8,700
TOTALS	59,400	100%	59,400

Council Structure Recommendations

[PLACEHOLDER: Sample language from 2015 report] - *The activities and results of 2014-15 continue to strengthen the commitment to fulfill the Vision and Mission of the Council. All of the functions as originally identified remain and are still necessary for Wisconsin’s Agriculture, Food and Natural Resource Sectors to succeed. On June 22, 2015, the Council voted and approved a motion recommending the Council remain in place to carry out the following functions as defined by the Act:*

1. *Increase the hiring and retention of well-qualified employees by industries related to agriculture, food and natural resources.*
2. *Promote the coordination of educational systems to develop, train and retain employees for current and future careers related to agriculture food and natural resources.*
3. *Develop support for career pathways and employment in fields related to agriculture, food and natural resources.*
4. *Recommend policies and other changes to improve the efficiency of the development and provision of agricultural education across all educational systems.*
5. *The Council shall seek to accomplish these purposes by advising state agencies on matters related to integrating agricultural education and workforce development systems.*

As required by law, the Council will re-visit this motion in June, 2016.]

Council Member Approval of Activities and Recommendations:

[PLACEHOLDER: Sample language] - *The Wisconsin Agricultural Education and Workforce Development Council SFY2020 Annual Report was distributed electronically to all Council members. Each Council member was asked to*

² [Employment Opportunities for College Graduates in Food, Agriculture, Renewable Natural Resources and the Environment, United States, 2020-2025](#)

review the Annual Report, provide input, and to provide their approval or dissent of the Annual Report. No dissent or minority opinions were received.]

Wisconsin Agricultural Education and Workforce Development Council Annual Report

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