

Postsecondary Technical Education Authority

AGENDA

Kansas Board of Regents

1000 SW Jackson, Suite 520, Topeka, KS

10:00 AM - THURSDAY, December 6, 2018

I. CALL TO ORDER

- A. Approve Previous Minutes (October 25, 2018) Chair Frederick

II. REPORTS

- A. Introductions Chair Frederick
B. Chair's Report Chair Frederick
C. Member Liaison Reports TEA Members
D. Vice President for Workforce Development Report Vice President Smathers
E. Report from the Community Colleges President Krull
F. Report from the Technical Colleges President Schears

III. CONSENT AGENDA

- A. Budget and Finance Committee Committee Chair M. Johnson
Distribution of Kansas State Safety Funds
 - Commercial Driver Training Fund (K.S.A. 8-272)
 - Motorcycle Safety Fund (K.S.A. 8-267)

IV. CONSIDERATION OF DISCUSSION AGENDA

- A. Program Approval Criteria Committee Chair R. Johnson
B. Existing Program Review Director Henry

V. OTHER MATTERS

- A. GAP Analysis Vice President Frisbie
B. Excel in CTE Projection Vice President Frisbie
C. Delegate Authority for Excel in CTE, AO-K Proviso, GED Accelerator Funds Vice President Frisbie
D. K-TIP Report: High Performing Programs Associate Director Chambers
E. Non-Traditional Student Participation & Completion Grant Associate Director Wood

VI. COLLEGE PRESENTATIONS

- A. Garden City Community College Interim President Ruda

VII. NEXT MEETING REMINDER (Wednesday, January 23, 2019) Chair Frederick

Please Note: The meeting will be at the Capitol Plaza

VIII. ADJOURNMENT

**PRELIMINARY MINUTES
KANSAS POSTSECONDARY
TECHNICAL EDUCATION AUTHORITY
MEETING**

The October 25, 2018 meeting of the Kansas Postsecondary Technical Education Authority (TEA) was held via conference call as scheduled at the Kansas Board of Regents, 1000 SW Jackson Street, Suite 520, Topeka, Kansas.

Members Present

Ray Frederick Jr., Chair
Rita Johnson
Mike Johnson
Lana Gordon
Mike Beene

Eddie Estes
Debra Mikulka
Stacy Smith
Sabrina Korentager
Jason Cox

Members Absent

Bret Spangler

Others Represented

Northwest Kansas Technical College
Pratt Community College
Hutchinson Community College
Cowley Community College
Manhattan Area Technical College
Fort Scott Community College
KACCT

Salina Area Technical College
Coffeyville Community College
Barton Community College
Flint Hills Technical College
Labette Community College
Seward County Community College
Johnson County Community College

Kansas Board of Regents Staff Present

Scott Smathers
Charmine Chambers
Tobias Wood

April Henry
Connie Beene
Susan Henry

CALL TO ORDER

The meeting was called to order by Chair Frederick at 10:02 A.M.

APPROVAL OF MINUTES

Motion: Member Estes moved to approve the minutes of September 27, 2018. Following a second by Member M. Johnson, the motion carried.

REPORTS

Introductions
None.

Chair's Report

Chair Frederick shared that Member Dong Quach resigned from the TEA on September 28, 2018. Chair Frederick reported that he served on a Workforce Alliance panel at the Workforce Innovation and Opportunity Conference in Wichita in October, and the focus was on federal WIOA training and roles, responsibility and relationships of Business and Industry with the institutions. Chair Frederick was

pleased to share the good work of the two-year institutions. He attended the Advance Kansas awards breakfast in Wichita. Advance Kansas is an initiative focused on diversity leadership training. He thanked Butler Community College, Spirit AeroSystems, Westar and Ameritrust for their involvement. He reminded TEA members of their commitment for campus visits. He plans to visit Colby, Northwest Kansas Technical College and North Central Kansas Technical College in November.

Member Liaison Reports

Member Estes reported that he attended Manufacturing Day October 5, 2018 in Dodge City, hosted by Dodge City Community College and the Ford County Economic Development Group, inviting 100 students who visited companies, followed by a luncheon and campus visit.

Member Mikulka thanked Commerce and KBOR for their participation and the success of the WIOA conference in Wichita, recognizing the well-organized sessions and networking opportunities.

Vice President for Workforce Development Report

Chair Frederick recognized Vice President Smathers, who reported that KBOR staff have attended numerous meetings & training sessions regarding Perkins V, activities which will be constant for the next two years. He announced that Associate Director Brown gave birth to a healthy baby boy. She will return to KBOR in early December. He informed members that Senior Director Beene and Associate Director Wood continue with military articulation efforts, and that President Flanders participated in a meeting with Army U. Kansas continues to be a leader in the nation in the military articulation initiative. Vice President Smathers attended an international economic development conference in Atlanta where the focus continues to be on workforce development. He attended a meeting with community college presidents and thanked them for extending the invitation. He reported participating in the orientation of newly appointed Regents. Vice President Smathers reminded TEA members to let staff know if they wish to attend the Mid America Workforce Summit in January and we will process their registration.

Report from the Community Colleges

Chair Frederick recognized Pratt Community College President Mike Calvert to provide members with a report and update on recent activities from the community colleges.

Report from the Technical Colleges

Chair Frederick recognized Northwest Kansas Technical College President Ben Schears, to provide members with a report and update on recent activities from the technical colleges.

CONSIDERATION OF DISCUSSION

Budget and Finance Committee

State Innovative Technology Grants

Chair Frederick called on Budget and Finance Committee Chair M. Johnson to present the State Innovative Technology Grants as reviewed and recommended for approval by the Committee on October 11, 2018. Chair Johnson referred any questions or comments to Senior Director Beene, who informed

members that the total annual award amount is approximately \$179,000, and that after approval of these four award proposals, approximately \$30,000 will remain and be available to support internships.

\$18,950.00 Coffeyville Community College
\$27,905.89 Flint Hills Technical College
\$59,097.25 Labette Community College
\$42,750.00 Northwest Kansas Technical College

Motion: Chair Frederick moved to approve the grant award requests for Coffeyville Community College, Flint Hills Technical College, Labette Community College and Northwest Kansas Technical College as recommended for approval by the Budget and Finance Committee. Following a second by Member R. Johnson, the motion carried. Member Mikulka abstained from voting due to a conflict.

Program Approval Criteria

Chair Frederick called upon Vice President Smathers to lead discussions regarding a summary of the program approval criteria that was discussed during the September TEA meeting and Strategic Planning session. The next step will be for KBOR staff to run all existing programs through the new approval criteria and then provide info on which programs may not meet approval, to be reviewed by the TEA for consideration of possible exceptions or for further approval criteria discussions. Vice President Smathers then referred to Technical Program and Curriculum Committee Chair R. Johnson to lead discussion regarding the part of the criteria addressing “only courses taught by an instructor employed by or paid by the institution will be eligible for postsecondary state funding.” Community College and Technical College Presidents expressed their concerns about how this might affect the innovation part of their programs, as well as impact Excel in CTE courses and requested additional discussion. Chair Frederick invited input from the Institution Presidents and requested that KBOR staff prepare a draft for additional discussions at the December TEA meeting, as well as a list of programs and how they are affected by application of the new criteria.

OTHER MATTERS

High School Equivalency

Chair Frederick called upon Associate Director Wood to present GED Comparison data in the absence of GED State Administrator Grosdidier. Associate Director Wood presented members with a brief overview of the FY 2017 to FY 2018 GED Comparisons, explaining the correlation between a strong economy and reduced GED participation numbers. Associate Director Wood applauded State Administrator Grosdidier for her achievements in the GED program since joining KBOR.

Kansas Training Information Program (K-TIP) Review Part 1

Chair Frederick recognized Associate Director Chambers to present the K-TIP Report. The K-TIP report is reviewed annually, and highlights have been provided to the Technical Education Authority since Academic Year 2012. K-TIP Highlights Report Part 1 examines performance at the discipline and institution levels. K-TIP has been supplemented for the first time with employment data provided by the Missouri Department of Labor. Further review at individual program levels will be forthcoming at future Technical Education Authority meetings.

Fall Semester Full-Time Equivalent Student Enrollment Report

Chair Frederick called on Vice President Smathers to present information to members regarding the full-time equivalent student enrollment report. Historically, data has been provided by headcount numbers, but especially at the university level, there were various standards to determine headcount. At the suggestion of Regent Mullin, using full-time equivalent (FTE) is a more accurate way to report the data, making it more consistent for year to year comparisons. Nationwide, with the unemployment rate low, higher education numbers are lower. The state FTE is down by 1.1% consistent with this trend.

TEA Goals for FY 2018-2019

Chair Frederick called on Vice President Smathers to present the 2018-2019 TEA Goals. Discussions were held during the September TEA meeting and Strategic Planning session. The following Goals were recommended:

TEA Goals 2018-2019

1. Support Board 2018-2019 goals
2. Review all existing and new programs using updated criteria
3. Participate in the Carl Perkins reauthorization efforts
4. Encourage expansion of the military articulation efforts while improving access to the information for both the users and the institutions.
5. Support having the TEA reauthorized by the Legislature

Other Areas to Evaluate 2018-2019

1. Offsite TEA meetings
2. Statewide grant applications

Motion: Member R. Johnson moved to approve the TEA Goals 2018-2019 as presented. Following a second by member Mikulka, the motion carried.

Excel in CTE (SB-155) Results

Chair Frederick called upon Vice President Smathers to present the Excel in CTE results for Academic Year 2018. Last year, this information piece was created to assist in the efforts for increased funding with the legislature. Of note for 2018, the number for headcount is up, credit hours have increased, and the increased appropriations are accounted for, minus the amount set aside for certifications, as those funds have now been directed to KSDE to distribute. This is a useful tool to assist in marketing efforts to continue the support of this program.

Tiered/Non-Tiered Process

Chair Frederick recognized Director Henry to present information regarding the Tiered/Non-tiered determination process. Director Henry informed members that per statute, every course is given a “tiered” or “non-tiered” designation based on the statutory definition provided in K.S.A. 71-1802. A process chart for applying the established framework was developed based on state statute and approved by the Technical Education Authority in 2014, a copy of which Director Henry had included in this meeting’s packet. The process chart starts with the statutory language that defines technical programs, non-tiered courses, and tiered technical courses. Director Henry explained that course syllabi are

reviewed and run through the flow chart, and if at any point the answer is “yes” to the non-tiered descriptors, the course is designated non-tiered.

NEXT MEETING REMINDER

Chair Frederick reminded members that the next TEA meeting will be December 6, 2018 at 10:00 AM at the KBOR Offices.

ADJOURNMENT

Motion: Member M. Johnson moved to adjourn the meeting. Following a second by Member R. Johnson, Chair Frederick adjourned the meeting at 11:31 A.M.

Respectfully submitted by:
Susan Henry, Executive Assistant

Distributions for FY2019 State Safety Funds

Summary and Staff Recommendation

Purpose: The Kansas Safety Fund was established per K.S.A. 8-267 and 8-272, and (in addition to other driver's education programs) provides for the distribution of those funds to 1. community colleges conducting approved courses in motorcycle safety, and 2. to Commercial Driver (CDL) Training Programs at community and technical colleges. These funds are available on an annual basis from driver's license fees and distributed to institutions based on the number of students completing their programs and passing examination.

Eligible Institutions: Public postsecondary career technical institutions delivering approved courses in motorcycle safety or Commercial Driver Training technical education programs in Kansas. 12/6/2018

Commercial Driver Training Participating Institutions, and Allocations:

Purpose of the Funds

FY19 Available Fee Funds \$101,782

Provide additional funding to institutions providing training for Commercial Driver Training. Institutions providing the Commercial Driver training program are contacted to provide student names, dates of training, and dates of licensure testing for the fund.

Institution	# of students	Amount paid per student	Allocation per Institution
Seward County Community College	41	\$600	\$24,600
Northwest Kansas Technical College	7	\$600	\$4,200
Salina Area Technical College	11	\$600	\$6,600
Washburn University Institute of Technology	22	\$600	\$13,200
TOTAL	81	\$600	\$48,600

Motorcycle Safety Participating Institutions, and Allocations:

Purpose of the Funds

FY19 Available Fee Funds \$88,686

Provide additional funding to institutions providing approved courses in motorcycle safety. Institutions providing the training courses are contacted by KSDE, and KSDE provides a total headcount and dollar amount per institution for distribution of the fund from KBOR.

Institution	Headcount	Allocation
Butler Community College	125	\$9,750
Cloud County Community College	51	\$3,978
Hutchinson Community College	224	\$17,472
Independence Community College	21	\$1,638
Johnson County Community College	516	\$40,248
Kansas City Kansas Community College	200	\$15,600
Totals	1,137	\$88,686

KBOR staff have reviewed the data provided, and distributions have been made per statute. This data is provided for information purposes.

Program Approval Criteria

Summary

Per statute, the Kansas Postsecondary Technical Education Authority (TEA) shall have delegated authority from the Kansas Board of Regents to review existing and proposed postsecondary technical education programs and program locations and make recommendations to the Board for approval or disapproval of such programs for state funding purposes.

During the last two meetings discussions have occurred regarding whether the course instructors need to be paid by and/or employed directly by the institutions. The following is revised criteria language for consideration. 12/6/2018

Background

In an attempt to better define how institutional oversight and control over who is teaching course(s), it is now recommended that the following criteria be added to the program review process.

Only courses taught by faculty employed by or paid by the institution will be eligible for postsecondary state funding. Instruction must be provided by the college directly, or through a contractual arrangement in which the college is fully responsible for the training provided and hiring of the instructor. To be "fully responsible" there must be an employer-employee relationship established through a contractual agreement between the college and the instructor.

Exceptions to this policy must have prior approval by KBOR staff and would include the following:

- Payments made directly to a KSDE accredited institution to cover the instructor costs for the delivery of a postsecondary credit bearing course as part of a concurrent enrollment agreement.
- Payments made directly to EduKan, or similar approved educational consortium, to cover the instructor costs for delivery of an approved postsecondary course as part of a partnership/consortium agreement that includes a requirement that states the instructor meets the same employment and credentialing standards of all part-time/adjunct instructors of the college.

Or in the case of Business & Industry training:

- Payments made for instructional costs for the delivery of an approved postsecondary course as part of a KBOR approved written partnership training agreement between the college and a business on a case by case basis. Such agreement must state that the instructor of the course meets the employment and credentialing standards of the college and is subject to compliance with applicable policies, rules, and regulations of the college as required of all part-time/adjunct faculty for the college.

In all cases the colleges must actually be paying someone for the instructional services performed to earn the determined rate for a course being delivered.

Once consensus is reached, any new criteria approved by the TEA will be included in the program approval process.

Program Approval/Review Criteria

Summary

Per statute, the Kansas Postsecondary Technical Education Authority (TEA) has delegated authority from the Kansas Board of Regents to review existing and proposed postsecondary technical education programs and program locations and to make recommendations to the Board for approval or disapproval of such programs for state funding purposes.

12/6/2018

Background

Kansas statute (71-1802) provides parameters which technical programs must meet and indicates the state board (Kansas Board of Regents) should identify technical programs for funding purposes. K.S.A. 71-1802 provides that the:

(g) *"State board of regents" or "state board" means the state board of regents provided for in the constitution of this state and established by K.S.A. 74-3202a, and amendments thereto.*

(i) *"Technical program" means any program of study comprised of a sequence of tiered technical courses and non-tiered courses, which program is identified by the state board as a technical program for funding purposes. Technical programs must:*

(1) Be designed to prepare individuals for gainful employment in current or emerging technical occupations requiring other than a baccalaureate or advanced degree; (2) lead to technical skill proficiency, an industry-recognized credential, a certificate or an associate degree; and (3) be delivered by an eligible institution.

Kansas statute (74-32,402) delegates authority from the Board of Regents to the Kansas Postsecondary Technical Education including, but not limited to:

(2) *recommend for adoption by the state board of regents rules and regulations for the supervision of postsecondary technical education;*

(3) *review existing and proposed postsecondary technical educational programs and program locations and make recommendations to the state board of regents for approval or disapproval of such programs for state funding purposes;*

During its September 27, 2018 TEA meeting and strategic planning session, the TEA and the Community College and Technical College representatives (Dr. Calvert and Dr. Genandt) developed four criteria for reviewing new and existing programs:

- 1) *All institutions must be considered an "eligible institution" based on statutory language provided in K.S.A. 71-1802;*
- 2) *To identify technical skill proficiency, industry recognized credentials will be evaluated based on the process previously approved by the TEA in 2015;*
- 3) *To identify if a program/occupation requires less than a baccalaureate degree as defined in K.S.A. 71-1802(i)*
 - a) *the program will be initially compared to the U.S. Department of Labor's "typical level of education required". If the U.S. Department of Labor shows an educational level less than a bachelor's degree, the program was affirmed to be a technical program.*
 - b) *If the program fails to meet the U.S. Department of Labor's "typical level of education required", the program may be compared to a 3rd party database to determine if 75% of jobs in Kansas may be obtained with training consistent with legislation and, less than a baccalaureate degree; and*
- 4) *Technical programs must consist of at least 55% tiered technical courses.*

Program Review Process

Board staff developed the process outlined below to review all technical programs compared to the four criteria determined by the TEA and the Community and Technical College representatives.

- 1) All 26 community and technical colleges (19 community colleges and 7 technical colleges) are eligible institutions based on K.S.A. 71-1802. No further comparison is required.
- 2) Attainment of an industry recognized certifications is a data point obtained for specific reporting (state legislature, WIOA, and Carl D. Perkins) purposes. This criterion should not be used to determine if a program is technical in nature; rather, it allows a standard by which industry recognized certifications are evaluated and included in reporting requirements.
- 3) To identify if a program leads to an occupation requiring less than a baccalaureate degree as defined in K.S.A. 71-1802(i), Board staff compared the Classification of Instructional Programs (CIP) codes used by the programs with the related Standard Occupation Classification (SOC) codes.

The U.S. Department of Education developed CIP Codes in 1980 to provide a scheme that supports the tracking, assessment, and reporting of program completions. The U.S. Department of Labor developed the SOC Code system to classify workers into occupational categories for collecting, calculating, and disseminating data. On either website, U.S Department of Education or U.S. Department of Labor, a CIP to SOC crosswalk may be obtained. These crosswalks show a relation between CIP Codes (what is taught in a program) and SOC Codes (occupations).

Each institution lists their programs in the Kansas Higher Education Data System (KHEDS) utilizing CIP codes. A download of all programs in the KHEDS database provided CIP code/program information. CIP/SOC matchups were compared to the U.S. Department of Labor “typical level of education required”:

- a) If the SOC code reflected an education level less than a baccalaureate degree, the programs were deemed appropriate for the “technical” status.
 - b) If the SOC code reflected an education level of a baccalaureate degree or higher, the SOC Code was evaluated through JobsEQ Real-Time Intelligence tool (RTI). JobsEQ is a software service that provides labor market information. The RTI tool utilizes 15,000 job posting websites to identify job postings based on SOC codes. Searches may be as broad as the entire state or as narrow as a single zip code. Searches reveal the number of jobs posted (30 days, 60 days, 180 days or an entire year), the required level of education, industry credentials, and the soft/hard skills that may be found in the job postings. For evaluation, the SOC codes were evaluated for the entire state for the entire calendar year of 2017.
- 4) Technical programs must consist of at least 55% tiered technical courses. Each program in KHEDS, as submitted by each institution, provides a detailed list of courses required for the program. Each course is deemed “tiered” or “non-tiered” based on K.S.A. 71-1802. An equation built into the KHEDS system shows the percentage of “tiered” courses within the program. A download of all programs in the KHEDS database provided this information.

Program Review Based on the Four Criteria

One hundred and ninety-eight CIP codes were listed as technical programs in the KHEDS database. Across all institutions this equates to one thousand seven hundred and eighty-one programs consisting of all possible exit points: short term programs (0-15 credit hours), Technical Certificate A (16-29 credit hours), Technical Certificate B (30-44 credit hours), Technical Certificate C (45-59 credit hours), and Associate of Applied Science degrees (60-68 credit hours). Each CIP code and educational level was evaluated based on the program review criteria.

CIP Codes/Programs Meeting criteria

When reviewing all CIP codes utilized by the technical programs, 128 meet the program review criteria. Each CIP Code was cross walked to its associated SOC Code(s). If the related SOC Code(s) required less than a bachelor's degree, the program was deemed appropriate for the "technical" status.

A full list of the CIP Codes/SOC Occupation comparison, meeting the criteria has been provided in the meeting packet.

CIP Codes/Programs Not Meeting criteria

When reviewing all CIP codes utilized by technical programs, 28 do not meet the program review criteria. Each CIP Code was cross walked to associated SOC Code(s). According to the US Department of Labor, the related SOC Code(s) required a bachelor's degree or higher as the typical educational level required for entry. Each SOC code was then compared to JobsEQ RTI data for the entire calendar year of 2017. The RTI data showed that either a bachelor's or a master's degrees as being the most common education level required.

A full list of CIP Codes/SOC Occupation comparisons has been provided in the meeting packet. It includes the US Department of Labor's typical education required for entry, and the percentage of the job postings requiring less than a bachelor's degree for calendar year 2017 as reported by the JobsEQ RTI tool.

CIP Codes/Programs Requiring Further Review

When reviewing all CIP codes utilized by technical programs, 42 appear questionable in terms of the program review criteria. Five categories need further discussion:

- 1) CIP Codes/SOC Occupation comparisons show 22 CIP codes used by institutions have conflicting SOC Code educational levels. CIP Codes often prepare students for more than one occupation. Normally, the level of education is consistent between the occupations; however, there are times when this is not true. Since at least one occupation may be obtained with an associate degree or less, Board staff recommend retaining these CIP Codes as "technical" programs.
- 2) CIP Codes/SOC Occupation comparisons show four programs with an entry level for employment as a bachelor's degree or higher; however, the JobsEQ RTI data show that between 50-94% of the job posting in 2017 required less than a bachelor's degree. Board staff recommend retaining these CIP Codes as "technical" programs.
- 3) CIP Codes/SOC Occupation comparisons show two programs with an entry level for employment as a bachelor's degree EXCEPT for the occupation: 27-1019 Artist and Related Workers, All Other. This occupation requires no education. Board staff recommend not retaining these CIP codes as "technical" programs.
- 4) CIP Codes/SOC Occupation comparisons show one program utilizing a CIP Code that is for military personnel and has no correlation to civilian occupations. Board staff recommends seeking advice from our Military contacts prior to making a final decision on this program. The results of the consultation will be brought back to the TEA for approval.
- 5) CIP Codes/SOC Occupation comparisons show 11 programs utilizing CIP Codes ending in '99. Typically, CIP Codes that end in 99 are nondescript and do not have an occupational data. Since technical programs should be occupationally specific; Board staff recommend working with the institutions using such CIP Codes to determine if there is a more appropriate CIP Code available, or if the program/occupation is too new to have a CIP Code, or if the program should not be retained as a "technical program". The results of this further review will be brought back to the TEA for approval.

All programs have been reviewed and are presented for discussion by the Technical Education Authority.

Staff Review and Recommendation

During the review of programs, it became clear to Board staff that two areas of the agreed upon criteria appeared to have been too restrictive:

- 1) Requiring 75% or more of the job postings in Kansas to require less than a bachelor's degree would eliminate critical programs such as Registered Nursing. Board staff recommends lowering this percentage to 50%.
- 2) Requiring technical programs to consists of 55%-tiered courses adversely affects many programs, including but not limited to, Agriculture, Information Technology, Hospitality, Industrial Technology, Manufacturing, and Healthcare. The percentage of courses deemed tiered or non-tiered within a program are not always controllable at the institutional level. One example is that all healthcare programs include many science courses due to the nature of the occupation, thus leading programs to fall short of the 55%. Board staff recommends eliminating this criterion.

If adopted, Board staff recommends 1) all new program proposals must meet the criteria to move forward with the approval process and 2) programs to be moved from "technical" status will move beginning with academic year 2021 which begins July 1, 2020.

CIP codes meeting Evaluation Criteria					
CIP Code	CIP Title	SOC Code/Title	US DOL Typical Education required for Entry	2017 JobsEq postings requiring less than Bachelor degree	Percent of All Tier Hours
01.0102	Agribusiness/Agricultural Business Operations	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	44.4% - 56.3%
01.0205	Agricultural Mechanics and Equipment/Machine Technology	49-3011 Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	94.03%	54.4% - 89.5%
		49-3041 Farm Equipment Mechanics and Service Technicians	High school diploma or equivalent	100.00%	
		49-3042 Mobile Heavy Equipment Mechanics, Except Engines	High school diploma or equivalent	NA	
01.0301	Agricultural Production Operations, General	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	53.3% - 59.4%
01.0307	Horse Husbandry/Equine Science and Management	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	66.1%
		45-2021 Animal Breeders	High school diploma or equivalent	100.00%	
01.0601	Applied Horticulture/Horticulture Operations, General	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	63.5% - 100%
01.0605	Landscaping and Grounds keeping	37-3012 Pesticide Handlers, Sprayers, and Applicators, Vegetation	High school diploma or equivalent	100.00%	100.0%
01.0906	Livestock Management	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	96.7%
10.0203	Recording Arts Technology	27-4011 Audio and Video Equipment Technicians	Postsecondary non-degree award	84.31%	56.5%
		27-4014 Sound Engineers	Postsecondary non-degree award	50.00%	
10.0301	Graphic Communications, General	51-5111 Prepress Technicians and Workers	Postsecondary non-degree award	76.92%	56.3%
10.0303	Prepress/Desktop Publishing and Digital Imaging Design	43-9031 Desktop Publishers	High school diploma or equivalent	100.00%	34.0% -
		51-5111 Prepress Technicians and Workers	Postsecondary non-degree award	76.92%	69.2%
		43-9021 Data Entry Keyers	High school diploma or equivalent	95.95%	65.6% -
10.0305	Graphic and Printing Equipment Operator, General	51-5111 Prepress Technicians and Workers	Postsecondary non-degree award	76.92%	83.8%
		51-5112 Printing Press Operators	High school diploma or equivalent	100.00%	
11.1004	Web/Multimedia Management and Webmasters	15-1134 Web Developers	Associate's degree	14.62%	65.0% - 90.9%
11.1006	Computer Support Specialist	15-1151 Computer User Support Specialists	Some college, no degree	69.14%	41.3% -
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	93.2%
12.0301	Funeral Service and Mortuary Science, General	11-9061 Funeral Service Managers	Associate's degree	100.00%	51.5%
		39-4011 Embalmers	Associate's degree	NA	
		39-4031 Morticians, Undertakers, and Funeral Directors	Associate's degree	100.00%	
12.0401	Cosmetology	39-5012 Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	100.00%	0% - 94.1%
12.0409	Aesthetician and Skin Care Specialists	39-5094 Skincare Specialists	Postsecondary non-degree award	100.00%	100.0%
12.0410	Nail Technician	39-5092 Manicurists and Pedicurists	Postsecondary non-degree award	100.00%	100.0%
12.0413	Cosmetology, Barbering, Styling, and Nail Instructor	39-5011 Barbers	Postsecondary non-degree award	100.00%	0.0%
		39-5012 Hairdressers, Hairstylists, and Cosmetologists	Postsecondary non-degree award	100.00%	
		35-1011 Chefs and Head Cooks	High school diploma or equivalent	53.78%	
12.0500	Cooking and Related Culinary Arts, General	35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	62.9% -
		35-2014 Cooks, Restaurant	No formal education/credential	100.00%	82.4%
		35-2019 Cooks, All Other	No formal education/credential	NA	
		51-3011 Bakers	No formal education/credential	98.78%	100.0%
12.0501	Baking and Pastry Arts	35-1011 Chefs and Head Cooks	High school diploma or equivalent	53.78%	58.7%
		35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	
		35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	
		35-2014 Cooks, Restaurant	No formal education/credential	100.00%	
		35-2019 Cooks, All Other	No formal education/credential	NA	
12.0504	Restaurant, Culinary, and Catering Management	11-9051 Food Service Managers	High school diploma or equivalent	83.32%	47.1% -
		35-1011 Chefs and Head Cooks	High school diploma or equivalent	53.78%	73.1%
		35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	
12.0505	Food Preparation/Professional Cooking/Kitchen Assistant	35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	66.7%
		35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	
		35-2019 Cooks, All Other	No formal education/credential	NA	
12.0506	Food Preparation/Professional Cooking/Kitchen Assistant	35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	95.0%
		35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	
		35-2019 Cooks, All Other	No formal education/credential	NA	
		35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	

12.0507	Food Preparation/Professional Cooking/Kitchen Assistant	35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	76.3%
		35-2019 Cooks, All Other	No formal education/credential	NA	
12.0508	Food Preparation/Professional Cooking/Kitchen Assistant	35-2012 Cooks, Institution and Cafeteria	No formal education/credential	100.00%	83.3%
		35-2013 Cooks, Private Household	Postsecondary non-degree award	100.00%	
		35-2019 Cooks, All Other	No formal education/credential	NA	
15.0201	Civil Engineering Technology	17-3022 Civil Engineering Technicians	Associate's degree	95.00%	63.6% - 78.6%
15.0303	Electrical, Electronic and Communications Engineering Technology	17-3023 Electrical and Electronics Engineering Technicians	Associate's degree	92.31%	91.7%
15.0405	Robotics Technology	17-3024 Electro-Mechanical Technicians	Associate's degree	100.00%	65.1% - 74%
15.0406	Automation Engineer Technology	17-3024 Electro-Mechanical Technicians	Associate's degree	100.00%	70.3%
15.0499	Electromechanical and Instrumentation and Maintenance Technologies	17-3024 Electro-Mechanical Technicians	Associate's degree	100.00%	68.2% - 93.8%
15.0505	Solar Energy Technology	17-3029 Engineering Technicians, Except Drafting	Associate's degree	100.00%	56.3% - 72.7%
		47-2231 Solar Photovoltaic Installers	High school diploma or equivalent	100.00%	
15.0506	Water Quality and Wastewater Treatment Management and Recycling Technology	51-8031 Water and Wastewater Treatment Plant and Systems Operators	High school diploma or equivalent	90.79%	58.3% - 84.6%
15.0508	Hazardous Materials Management and Waste Technology	47-4041 Hazardous Materials Removal Workers	High school diploma or equivalent	100.00%	56.3% - 70.6%
15.0607	Plastics and Polymer Engineering Technology	17-3029 Engineering Technicians, Except Drafting	Associate's degree	92.00%	64.5% - 78.7%
15.0611	Metallurgical Technology	17-3029 Engineering Technicians, Except Drafting	Associate's degree	92.00%	100%
15.0612	Industrial Technology	17-3026 Industrial Engineering Technicians	Associate's degree	92.59%	25.0% - 91.2%
15.0613	Manufacturing Engineering Technology	17-3026 Industrial Engineering Technicians	Associate's degree	92.59%	42.9% - 100%
15.0614	Welding Engineering Technology	17-3029 Engineering Technicians, Except Drafting	Associate's degree	92.00%	51.5%
		51-4121 Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	100.00%	
15.0699	Industrial Production Technologies	17-3026 Industrial Engineering Technicians	Associate's degree	92.59%	45.3% - 82.9%
15.0702	Quality Control Technology	51-9061 Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	95.07%	28.0%
15.0801	Aeronautical/Aerospace Engineering Technology	17-3021 Aerospace Engineering and Operations Technician	Associate's degree	77.27%	49.2% - 72.2%
15.0903	Petroleum Technology	19-4041 Geological and Petroleum Technicians	Associate's degree	42.86%	75.8% - 100%
15.1201	Computer Engineering Technology	17-3023 Electrical and Electronics Engineering Technicians	Associate's degree	92.31%	52.2%
15.1301	Drafting and Design Technology	17-3013 Mechanical Drafters	Associate's degree	79.13%	72.6% - 93.8%
		17-3019 Drafters, All Other	Associate's degree	NA	
15.1302	CAD/CADD Drafting - Design Technology	17-3013 Mechanical Drafters	Associate's degree	79.13%	55% - 91.7%
		17-3019 Drafters, All Other	Associate's degree	NA	
15.1303	Architectural Drafting and Architectural CAD/CADD	17-3011 Architectural Drafters	Associate's degree	91.25%	65.6%
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD	17-3013 Mechanical Drafters	Associate's degree	79.13%	62.1% - 77.6%
19.0708	Child Care and Support Services Management	25-2011 Preschool Teachers, Except Special Education	Associate's degree	77.52%	35.0% - 100%
19.0709	Child Care Provider/Assistant	39-9011 Childcare Workers (Nannies)	High school diploma or equivalent	96.62%	100.0%
22.0301	Legal Administrative Assistant	43-6012 Legal Secretaries	High school diploma or equivalent	81.25%	28.6% - 68.7%
22.0302	Legal Assistant	23-2011 Paralegals and Legal Assistants	Associate's degree	63.89%	37.5% - 58.3%
22.0303	Court Reporting	23-2011 Paralegals and Legal Assistants	Associate's degree	63.89%	65.6% - 86.7%
26.1201	Biotechnology	23-2011 Paralegals and Legal Assistants	Associate's degree	63.89%	0.0%
41.0204	Industrial Radiologic Technology	19-4051 Nuclear Technicians	Associate's degree	50.00%	65.6% - 85.7%
41.0299	Nuclear and Industrial Radiologic Technologies	19-4051 Nuclear Technicians	Associate's degree	50.00%	66.2% - 85.1%
41.0303	Chemical Process Technology	17-3026 Industrial Engineering Technicians	Associate's degree	92.59%	56.3% - 100%
		19-4031 Chemical Technicians	Associate's degree	41.67%	
		51-8091 Chemical Plant and Systems Operator	High school diploma or equivalent	100.00%	
		51-9011 Chemical Equipment Operators and Tenders	High school diploma or equivalent	100.00%	
43.0102	Corrections	33-3012 Correctional Offices and Jailers	High school diploma or equivalent	83.33%	30.9% - 66.7%

43.0107	Criminal Justice/Police Science	33-3051 Police and Sheriff's Patrol Officers	High school diploma or equivalent	96.55%	24.2% - 57.4%
43.0109	Security and Loss Prevention	33-3052 Transit and Railroad Police	High school diploma or equivalent	100.00%	47.6% - 83.3%
43.0203	Fire Science/Fire-fighting	33-2011 Firefighters	Postsecondary non-degree award	100.00%	41.3% - 100%
46.0101	Masonry	47-2021 Brick masons	High school diploma or equivalent	100.00%	100.0%
46.0201	Carpentry	47-2031 Carpenters	High school diploma or equivalent	100.00%	58.3% - 100.0%
46.0301	Electrical and Power Transmission Installation	49-9051 Electrical Power-Line Installers and Repairers	High school diploma or equivalent	97.62%	75.8% - 87%
46.0302	Electrician	47-2111 Electricians	High school diploma or equivalent	92.04%	68.8% - 100%
46.0401	Building/Property Maintenance	49-9071 Maintenance and Repair Workers, General	High school diploma or equivalent	100.00%	72.5% - 100%
46.0415	Building Construction Technology	17-3022 Civil Engineering Technicians	Associate's degree	95.00%	76.2% - 100%
47.0101	Electrical /Electronics Equipment Installation and Repair	49-2092 Electric Motor, Power Tool, and Related Repairers	High school diploma or equivalent	100.00%	65.6% - 100%
47.0103	Communications Systems Installation Repair Technology	49-2021 Radio, Cellular, and Tower Equipment Installers and Repairers	Associate's degree	100.00%	73.5% - 100%
47.0105	Industrial Electronics Technology	49-2094 Electrical and Electronic Repairers, Commercial and Industrial Equipment	Postsecondary non-degree award	98.00%	100.0%
47.0106	Appliance Installation and Repair Technology	49-9031 Home Appliance Repairers	High school diploma or equivalent	100.00%	100.0%
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology	49-9021 Heating, Air Conditioning, and Refrigeration Mechanics and Installers	Postsecondary non-degree award	95.83%	65.6% - 95.5%
47.0302	Heavy Equipment Maintenance Technology	49-3043 Maintenance Workers, Machinery	High school diploma or equivalent	100.00%	98.1%
47.0303	Industrial Mechanics and Maintenance Technology	49-9041 Industrial Machinery Mechanics	High school diploma or equivalent	98.39%	93.8%
47.0603	Autobody/Collision and Repair Technology	49-3021 Automotive Body Repairers	High school diploma or equivalent	100.00%	70.5% - 100%
47.0604	Automotive Mechanics Technology	49-3023 Automotive Service Technicians and Mechanics	Postsecondary non-degree award	100.00%	68.9% - 100%
47.0605	Diesel Mechanics Technology	49-3031 Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	99.66%	96.0%
47.0607	Airframe Mechanics and Aircraft Maintenance Technology	49-3011 Aircraft Mechanics and Service Technicians	Postsecondary non-degree award	94.03%	74.3%
47.0609	Avionics Maintenance Technology	49-2091 Avionics Technicians	Associate's degree	51.72%	72.6% - 88.1%
47.0611	Motorcycle Maintenance and Repair Technology	49-3052 Motorcycle Mechanics	Postsecondary non-degree award	NA	61.7% - 100%
47.0613	Medium/Heavy and Truck Technology	49-3031 Bus and Truck Mechanics and Diesel Engine Specialists	High school diploma or equivalent	99.66%	70.6% - 100%
48.0501	Machine Tool Technology	51-4041 Machinists	High school diploma or equivalent	100.00%	40.6% - 90.9%
48.0503	Machine Shop Technology/Assistant	51-4041 Machinists	High school diploma or equivalent	100.00%	100.0%
48.0506	Sheet Metal Technology/Sheet working	47-2211 Sheet Metal Workers	High school diploma or equivalent	92.86%	0.0%
48.0508	Welding Technology	51-4121 Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	100.00%	54.7% - 100.0%
48.0703	Cabinetmaking and Millwork	51-7011 Cabinetmakers and Bench Carpenters	High school diploma or equivalent	100.00%	70.8%
49.0202	Construction/Heavy Equipment/Earthmoving Equipment Operation	47-0000 Construction and Extraction Occupations	High school diploma or equivalent	88.60%	76.2% - 100%
49.0205	Truck and Bus Driver/Commercial Vehicle Operator	53-3032 Heavy and Tractor-Trailer Truck Drivers	Postsecondary non-degree award	100.00%	93.8% - 100%
49.0208	Railroad and Railway Transportation	53-4099 Rail Transportation Workers, All Other	High school diploma or equivalent	100.00%	34.9% - 100%
50.0406	Commercial Photography	27-4021 Photographers	High school diploma or equivalent	87.72%	15.9%
51.0601	Dental Assisting	31-9091 Dental Assistant	Postsecondary non-degree award	98.68%	53.3% - 89.2%
51.0602	Dental Hygiene	29-2021 Dental Hygienists	Associate's degree	50.00%	43.3% - 61.1%
51.0707	Health Information/Medical Records Technology	29-2071 Medical Records and Health Information Technicians	Postsecondary non-degree award	82.38%	45.5% - 59.7%
51.0708	Medical Transcription	31-9094 Medical Transcriptionists	Postsecondary non-degree award	100.00%	28.1% - 48.4%
51.0710	Medical Office Assistant	43-6013 Medical Secretaries	High school diploma or equivalent	94.54%	20.3% - 48.6%

51.0713	Medical Insurance Coding Specialist/Coder	29-2071 Medical Records and Health Information Technicians	Postsecondary non-degree award	82.38%	45.9% - 71.4%
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	43-6013 Medical Secretaries	High school diploma or equivalent	94.54%	35.9% - 51.3%
51.0801	Medical Assistant	31-9092 Medical Assistants	Postsecondary non-degree award	95.34%	46.9% - 94.6%
51.0803	Occupational Therapist Assistant	31-2011 Occupational Therapy Assistants	Associate's degree	43.71%	59.4%
51.0805	Pharmacy Technician	29-2052 Pharmacy Technician	High school diploma or equivalent	91.23%	30.0% - 71.8%
51.0806	Physical Therapy Technician/Assistant	31-2021 Physical Therapist Assistants	Associate's degree	86.71%	49.3% - 65.7%
51.0808	Veterinary/Animal Health Technology (Vet Tech/Vet Assistant)	29-2056 Veterinary Technologists and Technicians	Associate's degree	98.25%	57.4% - 65.9%
51.0810	Emergency Care Attendant	53-3011 Ambulance Drivers and Attendants, Except Emergency Medical Technicians	High school diploma or equivalent	100.00%	100.0%
51.0903	Electroneurodiagnostic/Electroencephalographic Technology	29-2099 Health Technologists and Technicians, All Other	Postsecondary non-degree award	95.76%	69.1%
51.0904	Emergency Medical Technology	29-2041 Emergency Medical Technicians and Paramedics	Postsecondary non-degree award	94.24%	76.5% - 100%
51.0908	Respiratory Care Therapy	29-2054 Respiratory Therapy Technicians	Associate's degree	100.00%	61.1% -
		29-1126 Respiratory Therapists	Associate's degree	78.38%	65.8%
51.0909	Surgical Technology	29-2055 Surgical Technologists	Postsecondary non-degree award	91.25%	58.9% - 83%
51.0910	Diagnostic Medical Sonography	29-2032 Diagnostic Medical Sonographers	Associate's degree	92.70%	85.7%
51.0911	Radiologic Technology	29-2034 Radiologic Technologists	Associate's degree	92.70%	66.7% - 71.8%
51.1004	Medical Laboratory Technician	29-2012 Medical and Clinical Laboratory Technicians	Associate's degree	78.30%	39.7% - 47.1%
51.1009	Phlebotomy Technician	31-9097 Phlebotomists	Postsecondary non-degree award	98.59%	56.1% - 100.0%
51.1502	Psychiatric/Mental Health Services Technician	29-2053 Psychiatric Technicians	Postsecondary non-degree award	84.38%	0.0% -
		31-1013 Psychiatric Aides	High school diploma or equivalent	100.00%	60%
51.2601	Health Aide	31-1014 Nursing Assistants	Postsecondary non-degree award	98.37%	55.6% - 96.9%
51.2602	Home Health Aide	31-1011 Home Health Aides	High school diploma or equivalent	100.00%	100.0%
51.2603	Medication Aide	31-9099 Healthcare Support Workers, All Other	High school diploma or equivalent	79.01%	100.0%
51.2604	Rehabilitation Aide	31-9099 Healthcare Support Workers, All Other	High school diploma or equivalent	79.01%	100.0%
51.3103	Dietetic Technician	29-2051 Dietetic Technicians	Associate's degree	97.83%	40.0%
51.3104	Dietitian Assistant	29-2051 Dietetic Technicians	Associate's degree	97.83%	58.1% - 87.5%
51.3501	Massage Therapy	31-9011 Massage Therapists	Postsecondary non-degree award	26.67%	49.2% - 74.2%
51.3901	Licenses Practical Nursing	29-2061 Licensed Practical and Licensed Vocational Nurses	Postsecondary non-degree award	86.02%	52.4% - 73.2%
51.3902	Nursing Assistant	31-1014 Nursing Assistants	Postsecondary non-degree award	98.37%	60% - 100.0%
52.0401	Administrative Assistant and Secretarial Science, General	43-6011 Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent	48.58%	9.7% -
		43-6014 Secretaries and Administrative Assistants, Except Legal, Medical and Executive	High school diploma or equivalent	85.13%	100%
52.0407	Business/Office Automation/Technology/Data Entry	43-9021 Data Entry Keyers	High school diploma or equivalent	95.95%	25.0%
		43-3061 Procurement Clerks	High school diploma or equivalent	100.00%	
		43-5011 Cargo and Freight Agents	High school diploma or equivalent	61.11%	11.1% -
		43-9022 Word Processors and Typists	High school diploma or equivalent	100.00%	23.1%
		43-9041 Insurance Claims and Policy Processing Clerks	High school diploma or equivalent	98.15%	
		43-9061 Office Clerks, General	High school diploma or equivalent	93.57%	
52.0409	Parts, Warehousing, and Inventory Management Operations	43-5061 Production, Planning, and Expediting Clerks	High school diploma or equivalent	41.52%	76.2% - 100%
52.0904	Hotel/Motel Administration/Management	11-9051 Food Service Managers	High school diploma or equivalent	83.32%	48.4% -
		11-9081 Lodging Managers	High school diploma or equivalent	62.22%	90.6%
52.0905	Restaurant/Food Services Management	11-9051 Food Service Managers	High school diploma or equivalent	83.32%	63.9% -
		11-9081 Lodging Managers	High school diploma or equivalent	62.22%	90%
		41-3099 Sales Representatives, Services, All Other	High school diploma or equivalent	42.06%	25.0% -
52.1803	Retailing and Retail Operations	41-9011 Demonstrators and Product Promoters	No formal education/credential	96.56%	63.6%
		41-9099 Sales and Related Workers, All Other	High school diploma or equivalent	97.56%	

CIP Codes Not Meeting Evaluation Criteria					
CIP Code	CIP Title	SOC Code/Title	US DOL Typical Education required for Entry	2017 JobsEq postings requiring less than Bachelor degree	Percent of All Tier Hours
01.1199	Plant Sciences, Other	19-1013 Soil and Plant Scientists	Bachelor's degree	0.00%	73.7%
09.0401	Journalism	27-3021 Broadcast News Analysts	Bachelor's degree	0.00%	23.1% - 30%
		27-3022 Reporters and Correspondents	Bachelor's degree	12.00%	
		27-3041 Editors	Bachelor's degree	5.13%	
		27-3043 Copy Writers	Bachelor's degree	8.33%	
09.0903	Advertising	11-2011 Advertising, Marketing, Promotions, Public Relations, and Sales Managers	Bachelor's degree	0.00%	29.0%
10.0304	Animation, Interactive, Technology, Video Graphics and Special Effects	27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	40.0% - 100%
11.0101	Computer and Information Sciences, General	11-3021 Computer and Information Systems Managers	Bachelor's degree	10.53%	56.3% - 100%
		15-1111 Computer and Information Research Scientists	Master's degree	20.59%	
		15-1121 Computer Analysts	Bachelor's degree	27.25%	
		15-1141 Database Administrators	Bachelor's degree	12.45%	
		15-1142 Network and Computer Systems Administrators	Bachelor's degree	31.43%	
		15-1143 Computer Network Architects	Bachelor's degree	42.50%	
11.0202	Computer Programming, Specific Applications	15-1199 Computers Occupations, All Other	Bachelor's degree	13.00%	77.6% - 81.8%
		15-1131 Computer Programmers	Bachelor's degree	24.07%	
		15-1132 Software Developers, Applications	Bachelor's degree	9.27%	
11.0802	Data Modeling/Warehousing and Database Administration	15-1133 Software Developers, Systems Software	Bachelor's degree	0.00%	55.6% - 71.4%
		15-1141 Database Administrators	Bachelor's degree	12.45%	
		15-1111 Computer and Information Research Scientists	Master's degree	20.59%	
11.0804	Modeling, Virtual Environments and Simulations	15-1131 Computer Programmers	Bachelor's degree	24.07%	70.0% - 100%
		15-1132 Software Developers, Applications	Bachelor's degree	9.27%	
		27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	
		11-9041 Architectural and Engineering Managers	Bachelor's degree	7.04%	
14.9999	Engineering, Other	17-2199 Engineers, All Other	Bachelor's degree	14.02%	59.1% - 89.2%
		29-9011 Occupational Health and Safety Specialists	Bachelor's degree	25.85%	30.8% - 47.2%
15.0701	Occupational Safety and Health Technology	15-1131 Computer Programmers	Bachelor's degree	24.07%	38.8% - 75%
		15-1132 Software Developers, Applications	Bachelor's degree	9.27%	
		15-1133 Software Developers, Systems Software	Bachelor's degree	0.00%	
41.0101	Biology Technician/Biotechnology Laboratory Technician	19-4021 Biological Technicians	Bachelor's degree	39.13%	9.4% - 68.8%
43.0106	Forensic Science and Technology	19-4092 Forensic Science Technicians	Bachelor's degree	33.33%	55.3% - 61.8%
50.0401	Design and Visual Communications, General	27-1021 Commercial and Industrial Designers	Bachelor's degree	0.00%	89.6%
		27-1024 Graphic Designers	Bachelor's degree	31.79%	
		27-1027 Set and Exhibit Designers	Bachelor's degree	NA	
		27-1029 Designers, All Other	Bachelor's degree	NA	
50.0407	Fashion/Apparel Design	27-1022 Fashion Designers	Bachelor's degree	NA	73.1%
50.0411	Game and Interactive Media Design	27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	61.2% - 76%
51.0702	Hospital and Health Care Facilities Administration/Management	11-9111 Medical and Health Services Managers	Bachelor's degree	28.49%	76.0%

51.0706	Health Information/Medical Records Administration	11-9111 Medical and Health Services Managers	Bachelor's degree	28.49%	81.0% - 81%
51.0799	Health and Medical Administrative Services, Other	NA	NA	NA	50% - 55.2%
51.1501	Substance Abuse/Addiction Counseling	21-1011 Substance Abuse and Behavioral Disorder Counselors 21-1014 Mental Health Counselors	Bachelor's degree Master's degree	8.16% 23.45%	23.4% - 30.0%
52.0101	Business/Commerce, General	11-1011 Chief Executives	Bachelor's degree	2.11%	36.8%
		11-1021 General and Operations Managers	Bachelor's degree	35.74%	
		11-2022 Sales Manager	Bachelor's degree	24.27%	
		11-3011 Administrative Services Managers	Bachelor's degree	32.63%	
		11-3051 Industrial Production Managers	Bachelor's degree	25.36%	
		11-9021 Construction Managers	Bachelor's degree	22.73%	
		11-9151 Social and Community Service Manager	Bachelor's degree	9.23%	
		13-1051 Cost Estimators	Bachelor's degree	29.80%	
52.0201	Business Administration and Management, General	13-1111 Management Analysts	Bachelor's degree	13.90%	23.4% - 75%
		11-1011 Chief Executives	Bachelor's degree	2.11%	
		11-1021 General and Operations Managers	Bachelor's degree	35.74%	
		11-2022 Sales Manager	Bachelor's degree	24.27%	
		11-3011 Administrative Services Managers	Bachelor's degree	32.63%	
		11-3051 Industrial Production Managers	Bachelor's degree	25.36%	
		11-9021 Construction Managers	Bachelor's degree	22.73%	
		11-9151 Social and Community Service Manager	Bachelor's degree	9.23%	
52.0305	Accounting and Business/Management	13-1051 Cost Estimators	Bachelor's degree	29.80%	44.3% - 50.0%
		13-1111 Management Analysts	Bachelor's degree	13.90%	
		11-3031 Financial Managers	Bachelor's degree	16.77%	
52.0701	Entrepreneurship	13-2011 Accountants and Auditors	Bachelor's degree	14.83%	26.6% - 41.2%
		13-2051 Financial Analysts	Bachelor's degree	14.14%	
		11-1011 Chief Executives	Bachelor's degree	2.11%	
52.0703	Small Business Administration/Management	11-1021 General and Operations Managers	Bachelor's degree	35.74%	8.3% - 70%
		11-9199 Managers, All Other	Bachelor's degree	35.58%	
52.1401	Marketing/Management, General	11-9199 Managers, All Other	Bachelor's degree	35.58%	23.4% - 68.4%
		11-2011 Advertising and Promotions Managers	Bachelor's degree	0.00%	
		11-2022 Sales Manager	Bachelor's degree	24.27%	
52.1499	Marketing, Other	13-1161 Market Research Analysts and Marketing Specialists	Bachelor's degree	23.25%	61.8% - 63.2%
		11-2021 Marketing Managers	Bachelor's degree	13.39%	
52.2001	Construction Management	11-9021 Construction Managers	Bachelor's degree	22.73%	60.3% - 67.9%

CIP codes needing further review					
CIP Code	CIP Title	SOC Code/Title	KS DOL Typical Education required for Entry	JobsEq Job & Req less than Bachelors	Percent of All Tier Hours
1) CIP Codes/SOC Occupation comparisons show 22 CIP codes used by institutions have conflicting SOC Code educational levels. CIP Codes often prepare students for more than one occupation. Normally, the level of education is consistent between the occupations; however, there are times when this is not true. Since at least one occupation may be obtained with an associate degree or less, Board staff recommend retaining these CIP Codes as "technical" programs.					
01.0104	Farm and Ranch Management	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	45.2% -
		25-9021 Farm and Home Management Advisors	Master's degree	0.00%	100%
01.0105	Agricultural/Farm Supplies Retailing and Wholesale	13-1021 Buyers and Purchasing Agents (Farm Products)	Bachelor's degree	6.25%	58.7%
		45-2041 Graders and Sorters (Agricultural Products)	No formal education/credential	100.00%	
01.0302	Animal/Livestock Husbandry and Production	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	41.9% -
		25-9021 Farm and Home Management Advisors	Master's degree	0.00%	78.4%
		45-2021 Animal Breeders	High school diploma or equivalent	100.00%	
01.0304	Crop Production	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	64.5% -
		25-9021 Farm and Home Management Advisors	Master's degree	0.00%	70%
01.0308	Agroecology and Sustainable Agriculture	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	60.0% -
		19-1013 Soil and Plant Scientists	Bachelor's degree	0.00%	94.1%
01.1102	Agronomy and Crop Science	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	54.1%
		19-1013 Soil and Plant Scientists	Bachelor's degree	0.00%	
01.1105	Plant Protection and Integrated Pest Management	11-9013 Farmers, Ranchers, and Other Agricultural Managers	High school diploma or equivalent	26.32%	56.9% -
		19-1013 Soil and Plant Scientists	Bachelor's degree	0.00%	75.8%
10.0202	Radio and Television Broadcasting Technology	27-4012 Broadcast Technicians	Associate's degree	93.94%	46.8% -
		27-4031 Camera Operators, Television, Video, and Motion Picture	Bachelor's degree	50.00%	75%
		27-4032 Film and Video Editors	Bachelor's degree	37.50%	
11.0201	Computer Programming, General	15-1131 Computer Programmers	Bachelor's degree	24.07%	21% -
		15-1132 Software Developers, Applications	Bachelor's degree	9.27%	100%
		15-1133 Software Developers, Systems Software	Bachelor's degree	0.00%	
		15-1143 Computer Network Architects	Bachelor's degree	42.50%	
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	
11.0301	Data Processing Technology	15-1199 Computers Occupations, All Other	Bachelor's degree	13.00%	19.4% -
		43-9011 Computer Operators	High school diploma or equivalent	100.00%	25%
11.0801	Web Page, Digital/Multimedia and Information Resources Design	15-1134 Web Developers	Associate's degree	14.62%	48.2%
		27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	
		27-1024 Graphic Designers	Bachelor's degree	31.79%	
11.0803	Computer Graphics	15-1134 Web Developers	Associate's degree	14.62%	68.8%
		27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	
		27-1024 Graphic Designers	Bachelor's degree	31.79%	
11.0901	Computer Systems Networking and Telecommunications	15-1122 Information Security Analysts	Bachelor's degree	17.75%	33.3% -
		15-1143 Computer Network Architects	Bachelor's degree	42.50%	100%
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	
11.1001	Network and System Administration	11-3021 Computer and Information Systems Managers	Bachelor's degree	10.53%	68.3% -
		15-1122 Information Security Analysts	Bachelor's degree	17.75%	71.4%
		15-1142 Network and Computer Systems Administrators	Bachelor's degree	31.43%	
		15-1143 Computer Network Architects	Bachelor's degree	42.50%	
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	
11.1002	System, Networking, and LAN/WAN Management	15-1122 Information Security Analysts	Bachelor's degree	17.75%	70.0%
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	
11.1003	Computer and Information Systems Security/Information Assurance	11-3021 Computer and Information Systems Managers	Bachelor's degree	10.53%	71.4% -
		15-1122 Information Security Analysts	Bachelor's degree	17.75%	100%
		15-1141 Database Administrators	Bachelor's degree	12.45%	
		15-1142 Network and Computer Systems Administrators	Bachelor's degree	31.43%	
		15-1143 Computer Network Architects	Bachelor's degree	42.50%	
		15-1152 Computer Network Support Specialists	Associate's degree	0.00%	

49.0108	Flight Instructor	53-2011 Airline Pilots, Copilots, and Flight Engineers	Bachelor's degree	100.00%	21.9%
		53-2012 Commercial Pilots	High school diploma or equivalent	38.46%	
52.0203	Logistics, Materials, and Supply Chain Management	11-3051 Industrial Production Managers	Bachelor's degree	25.36%	55.4%
		11-3071 Transportation, Storage, and Distribution Managers	High school diploma or equivalent	31.59%	100%
51.0709	Medical Office Computer Specialists	15-1131 Computer Programmers	Bachelor's degree	24.07%	68.2%
		15-1151 Computer User Support Specialists	Some college, no degree	69.14%	81%
52.0302	Accounting Technology/Bookkeeping	13-2082 Tax Preparers	High school diploma or equivalent	73.41%	19.6%
		43-3031 Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	74.27%	
		43-3051 Payroll and Timekeeping Clerks	High school diploma or equivalent	74.88%	
		43-4011 Brokerage Clerk	High school diploma or equivalent	0.00%	
52.1801	Sales, Distribution, and Marketing Operations, General	43-9111 Statistical Assistants	Bachelor's degree	0.00%	34.4%
		13-1022 Wholesale and Retail Buyers, Except Farm Products	Bachelor's degree	15.38%	
		13-1023 Purchasing Agents, Except Wholesale, Retail, and Farm Products	Bachelor's degree	46.82%	
52.1902	Fashion Merchandising	41-4012 Sales Representatives, Wholesale and Manufacturing	High school diploma or equivalent	86.15%	56.3%
		13-1022 Whole and Retail Buyers, Except Farm Products	Bachelor's degree	15.38%	56.1%
		41-4012 Sales Representatives, Wholesale and Manufacturing	High school diploma or equivalent	86.15%	88%

2) CIP Codes/SOC Occupation comparisons show six programs with an entry level for employment as a bachelor's degree or higher; however, the JobsEQ RTI data show that between 50-94% of the job posting in 2017 required less than a bachelor's degree. Board staff recommend retaining these CIP Codes as "technical" programs.

16.0103	Sign Language Interpretation and Translation	27-3091 Interpreters and Translators	Bachelor's degree	94.10%	10.0% - 70%
51.3801	Registered Nursing	29-1141 Registered Nurse	Bachelor's degree	50.03%	52.4% - 68.6%
43.0302	Crisis/Emergency/Disaster Management	11-9161 Emergency Management Directors	Bachelor's degree	52.63%	26.2% - 54.5%
52.0205	Operations Management and Supervision	11-3021 Computer and Information Systems Managers	Bachelor's degree	10.53%	85.0%
		11-3051 Industrial Production Managers	Bachelor's degree	25.36%	
		11-9021 Construction Managers	Bachelor's degree	22.73%	
		13-1081 Logisticians	Bachelor's degree	51.54%	
01.0401	Agricultural and Food Products Processing	45-2011 Agricultural Inspectors	Bachelor's degree	63.64%	10.9% - 70.6%
50.0408	Interior Design	27-1025 Interior Designers	Bachelor's degree	54.05%	64.2% - 79.3%

3) CIP Codes/SOC Occupation comparisons show two programs with an entry level for employment as a bachelor's degree EXCEPT for the occupation: 27-1019 Artist and Related Workers, All Other. This occupation requires no education. Board staff recommend not retaining these CIP codes as "technical" programs.

50.0402	Commercial and Advertising Art	27-1019 Artists and Related Workers, All Others	No formal education/credential	100.00%	20.6%
		27-1021 Commercial and Industrial Designers	Bachelor's degree	0.00%	
		27-1024 Graphic Designers	Bachelor's degree	31.79%	
50.0409	Graphics Design	27-1011 Art Directors	Bachelor's degree	10.00%	38.1% - 94.7%
		27-1014 Multimedia Artists and Animators	Bachelor's degree	42.11%	
		27-1019 Artists and Related Workers, All Others	No formal education/credential	100.00%	
		27-1024 Graphic Designers	Bachelor's degree	31.79%	

4) CIP Codes/SOC Occupation comparisons show one program utilizing a CIP Code that is for military personnel and has no correlation to civilian occupations. Board staff recommends seeking advice from our Military contacts prior to making a final decision on this program.

29.0204	Command & Control (C3, C4) Systems and Operations	55-1015 Command and Control Center Officers	Military designation	NA	10%
		55-3015 Command and Control Center Specialists	Military designation	NA	66.7%

5) CIP Codes/SOC Occupation comparisons show eleven programs utilizing CIP Codes ending in '99. Typically, CIP Codes that end in 99 are nondescript and do not have an occupational data. Since technical programs should be occupationally specific; Board staff recommends working with institutions using such CIP Codes to 1) determine if there is a more appropriate CIP Code available, 2) if the program/occupation is too new to have a CIP Code, or 3) the program should not be retained as a "technical program"

01.9999	Agriculture, Agriculture Operations, and Related Sciences	NA	NA	NA	46.8% - 74.4%
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43.9999	Homeland Security, Law Enforcement, Firefighting and Related Protective Services	NA	NA	NA	94.7%
46.9999	Construction Trades, Other	NA	NA	NA	73.5%
47.9999	Mechanic and Repair Technologies	NA	NA	NA	51.6% - 81.3%
48.9999	Precision Production, Other	NA	NA	NA	63.5% - 83.3%
49.0199	Air Transportation, Other	NA	NA	NA	59.7%
51.2699	Health Aide/Attendants/Orderlies	NA	NA	NA	100.0%
51.3699	Movement and Mind-Body Therapies and Education	NA	NA	NA	6.3%
51.9999	Health Professions and Related Clinical Sciences	NA	NA	NA	71.8% - 87.5%
52.9999	Business, Management, Marketing, and Related Support Services	NA	NA	NA	32.3%
51.0799	Health and Medical Administrative Services, Other	NA	NA	NA	50.0%

Receive Information on Analysis of State Appropriation-Gap Report

Summary

2011 Senate Bill 143 created a new formula for distributing state aid for postsecondary technical education courses, which was intended to take effect in FY 2012. Within that formula is the Kansas Board of Regents' cost model that calculates institutions' costs at a course level and recognizes the cost differential in delivering technical courses. The state funding process updates the state course rates using actual credit hour enrollments and institutions' costs to provide the courses, and then calculates the state's share of those costs. The cost model then produces a gap report that identifies the shortfall in funding for each college when considering local resources and available state funding. The current year's gap report is attached. 12/6/2018

Components of the cost model are updated annually based on the Costs and Productivity Study provided by Johnson County Community College. Every year KBOR staff generates new funding results which are then provided to the TEA and the colleges. The funding results for FY 2019 have been generated. Within its unified budget request to the Governor and Legislature, the Board of Regents has requested a combined \$25.2 million to implement the formula, starting in FY 2020. The additional state appropriation would fund the cost model for the first time since its inception. Additional detail on how course rates and the state's costs are calculated are provided below.

$$\text{Total Course Rate} = \text{Instructor Costs} + \text{Extraordinary Costs} + \text{Instructional Support Costs} + \text{Institutional Support Costs}$$

Instructor Costs = Faculty salary costs as reported to the National Community College Cost and Productivity Project conducted by Johnson County Community College (JCCC) annually.

Extraordinary Costs = Costs to purchase additional supplies, materials and specialized equipment needed to provide intensive, hands-on learning opportunities within technical education (e.g., welders, patient simulators, cattle feeders, lab supplies).

Instructional Support Costs = Costs associated with academic support and student services (e.g. computer labs, instructional materials, library).

Institutional Support Costs = The institutional costs associated with administration, facilities, and maintenance (e.g., operation/maintenance of physical plant and facility upgrades).

Total Course Cost = Course Rate X Eligible Student Credit Hours (SCH)

The “state’s share”¹ of the total calculated cost was to be determined based on student credit hours:

- Community College in-district SCH² = 1/3 student, 1/3 local taxing district, 1/3 state
- Community College out-district SCH = 1/3 student, 2/3 state
- All Technical College SCH = 1/3 student, 2/3 state
- Secondary students in SB 155 = 100% state

The additional state funding requested in this budget enhancement will assist the Board, community colleges, and technical colleges in our progress towards the goals and metrics as outlined in the Board’s Foresight 2020 Strategic Plan. The additional state investment will assist colleges in increasing attainment among Kansans by the number of certificates and degrees awarded to meet the goal of 53,000 per year to produce enough graduates to meet the projected workforce demand. It will also assist colleges in the plan’s goal of improving alignment of the state’s higher education system with the needs of the economy.

Recommendation

This is for discussion purposes only and no action needs to be taken.

¹ The calculated share of the student, local community and the state under the cost model are based on a number of assumptions, including “full funding” by the Legislature. This budget enhancement is intended for the aid program to attain “full funding.”

² An in-district community college student resides within the college’s taxing district (which is the local county with the exception of Montgomery County which has two community colleges, so the county is divided roughly in half).

AY 2018 Postsecondary Tiered Technical State Aid							AY 2018 Non-Tiered Course Credit Hour Grant						
Institution Name	KBOR Calculated State Share In-District	KBOR Calculated State Share Out-District	KBOR Calculated State Share Total	2019 Base	*Funding Needed to Close GAP	Institutional GAP %	Institution Name	KBOR Calculated State Share In-District	KBOR Calculated State Share Out-District	KBOR Calculated State Share Total	2019 Base	*Funding Needed to Close GAP	Institutional GAP %
Allen County CC	\$31,912	\$626,474	\$658,386	\$1,309,710	(\$651,324)	*	Allen County CC	\$253,994	\$4,195,579	\$4,449,573	\$3,426,453	\$1,023,120	23.00%
Barton County CC	\$354,254	\$3,180,275	\$3,534,529	\$3,472,162	\$62,367	1.80%	Barton County CC	\$614,849	\$7,226,285	\$7,841,134	\$4,335,794	\$3,505,340	44.70%
Butler CC	\$604,135	\$4,956,176	\$5,560,311	\$4,153,706	\$1,406,605	25.30%	Butler CC	\$2,068,013	\$13,532,533	\$15,600,546	\$10,400,877	\$5,199,669	33.30%
Cloud County CC	\$114,564	\$1,174,576	\$1,289,140	\$1,346,073	(\$56,933)	*	Cloud County CC	\$218,237	\$2,914,291	\$3,132,528	\$3,022,259	\$110,269	3.50%
Coffeyville CC	\$226,746	\$662,132	\$888,878	\$1,205,082	(\$316,204)	*	Coffeyville CC	\$469,046	\$742,070	\$1,211,116	\$1,774,563	(\$563,447)	*
Colby CC	\$105,579	\$1,217,865	\$1,323,444	\$677,358	\$646,086	48.80%	Colby CC	\$216,378	\$1,454,560	\$1,670,938	\$1,343,423	\$327,515	19.60%
Cowley County CC	\$328,636	\$1,171,073	\$1,499,709	\$2,488,470	(\$988,761)	*	Cowley County CC	\$771,386	\$3,448,407	\$4,219,793	\$4,351,041	(\$131,248)	*
Dodge City CC	\$561,611	\$428,504	\$990,115	\$1,159,610	(\$169,495)	*	Dodge City CC	\$960,108	\$747,581	\$1,707,689	\$1,491,616	\$216,073	12.70%
Flint Hills Tech Col	\$1,856,483	\$0	\$1,856,483	\$1,757,990	\$98,493	5.30%	Flint Hills Tech Col	\$812,187	\$0	\$812,187	\$474,607	\$337,580	41.60%
Ft. Scott CC	\$193,682	\$1,205,326	\$1,399,008	\$1,487,677	(\$88,669)	*	Ft. Scott CC	\$549,972	\$1,776,938	\$2,326,910	\$1,907,243	\$419,667	18.00%
Garden City CC	\$655,970	\$370,985	\$1,026,955	\$999,220	\$27,735	2.70%	Garden City CC	\$1,664,434	\$715,739	\$2,380,173	\$1,668,505	\$711,668	29.90%
Highland CC	\$63,646	\$1,453,571	\$1,517,217	\$1,808,822	(\$291,605)	*	Highland CC	\$109,479	\$4,228,693	\$4,338,172	\$3,930,240	\$407,932	9.40%
Hutchinson CC	\$980,933	\$4,634,657	\$5,615,590	\$3,970,599	\$1,644,991	29.30%	Hutchinson CC	\$1,849,507	\$5,096,532	\$6,946,039	\$5,035,158	\$1,910,881	27.50%
Independence CC	\$74,118	\$172,564	\$246,682	\$551,133	(\$304,451)	*	Independence CC	\$352,695	\$699,411	\$1,052,106	\$1,410,162	(\$358,056)	*
Johnson County CC	\$5,310,386	\$3,238,996	\$8,549,382	\$6,245,510	\$2,303,872	26.90%	Johnson County CC	\$12,334,545	\$5,278,288	\$17,612,833	\$15,015,969	\$2,596,864	14.70%
Kansas City Kansas CC	\$1,626,113	\$3,137,820	\$4,763,933	\$4,269,157	\$494,776	10.40%	Kansas City Kansas CC	\$2,479,806	\$3,545,776	\$6,025,582	\$5,907,338	\$118,244	2.00%
Labette CC	\$283,664	\$882,223	\$1,165,887	\$1,113,892	\$51,995	4.50%	Labette CC	\$736,601	\$1,613,556	\$2,350,157	\$1,591,136	\$759,021	32.30%
Manhattan Area Tech Col	\$2,039,010	\$0	\$2,039,010	\$1,863,017	\$175,993	8.60%	Manhattan Area Tech Col	\$855,170	\$0	\$855,170	\$442,981	\$412,189	48.20%
Neosho County CC	\$151,580	\$1,979,349	\$2,130,929	\$1,327,792	\$803,137	37.70%	Neosho County CC	\$423,705	\$1,793,917	\$2,217,622	\$1,494,940	\$722,682	32.60%
North Central KS Tech Col	\$2,911,117	\$0	\$2,911,117	\$2,742,781	\$168,336	5.80%	North Central KS Tech Col	\$904,921	\$0	\$904,921	\$737,414	\$167,507	18.50%
Northwest KS Tech Col	\$1,711,999	\$0	\$1,711,999	\$2,137,815	(\$425,816)	*	Northwest KS Tech Col	\$1,256,947	\$0	\$1,256,947	\$552,195	\$704,752	56.10%
Pratt CC	\$124,273	\$897,586	\$1,021,859	\$1,173,705	(\$151,846)	*	Pratt CC	\$267,056	\$1,123,623	\$1,390,679	\$1,216,635	\$174,044	12.50%
Salina Area Tech Col	\$1,133,945	\$0	\$1,133,945	\$1,876,608	(\$742,663)	*	Salina Area Tech Col	\$474,947	\$0	\$474,947	\$106,446	\$368,501	77.60%
Seward County CC	\$477,529	\$683,797	\$1,161,326	\$1,168,732	(\$7,406)	*	Seward County CC	\$701,869	\$794,009	\$1,495,878	\$1,806,534	(\$310,656)	*
Washburn Institute of Tech	\$4,432,230	\$0	\$4,432,230	\$2,636,431	\$1,795,799	40.50%	Washburn Institute of Tech	\$381,551	\$0	\$381,551	\$164,640	\$216,911	56.80%
Wichita Area Tech Col	\$10,057,424	\$0	\$10,057,424	\$4,568,730	\$5,488,694	54.60%	Wichita Area Tech Col	\$4,645,721	\$0	\$4,645,721	\$1,853,765	\$2,791,956	60.10%
Total	\$36,411,539	\$32,073,949	\$68,485,488	\$57,511,782	\$10,973,706		Total	\$36,373,124	\$60,927,788	\$97,300,912	\$75,461,934	\$21,838,978	
Total GAP Amount w/No Institution Funding Losses							Total GAP Amount w/No Institution Funding Losses						

*Funding Needed to Close GAP = KBOR Calculated State Share Total minus State Distribution

**2012 New Funding Distribution Methodology

Excel in CTE (SB 155) Information Sheet

Summary

Excel in CTE (SB 155) is a critical component of the state's technical education efforts. Last year the Legislature added over \$7 million dollars which fully funded the program for the first time in three years. However, the program has continued to expand, and based on Fall 2018 enrollment data provided by the institutions, Board staff estimates that the existing state appropriation for FY 2019 will not cover the state's cost for student tuition. Historical data and projections are attached for the current year should additional funds not be made available. The Board of Regents appealed to Governor-Elect Kelly for the addition of \$4.5 million in her proposed budget to the 2019 Legislature to address this shortfall and that additional money be added in FY 2020 and 2021. In addition, the Board has requested authority to carry over unspent dollars in this appropriation so that they remain committed to this program, rather than lapse back to the State General Fund. 12/6/2018

The state's Excel in CTE initiative provides high school students avenues to technical education programs. Excel in CTE (originally known as Senate Bill 155) was passed by the Legislature during the 2012 Session and implemented during the 2012-2013 school year. Allowing for state-financed tuition for high school students enrolled in approved technical courses at Kansas technical and community colleges, Excel in CTE has been extremely successful. Student headcount climbed to 11,690 students in the 2017-18 school year, compared to 3,475 in 2010-11, and college credits earned soared to over 92,000 compared to 28,000 before the new program started. This program is often mentioned as a key aspect of the new K-12 initiative.

For FY 2018 the Legislature increased funding for the program by approximately \$7.3 million dollars and added \$8.3 million to the budget for FY 2019, bringing the current allocation of funds to Excel in CTE to a little over \$29 million. Even with these additional funds, based on Fall semester numbers provided by the institutions, it is now estimated there will be a shortfall of approximately \$4.5 million.

Recommendation

Staff recommends that the TEA, the Board of Regents, and the colleges make this information widely available for legislators when considering appropriation of additional funds to the Excel in CTE program.



Excel in Career Technical Education Initiative (SB-155)

October 2018

PARTICIPATION

	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Headcount	3,475	3,870	6,101	8,440	10,275	10,023	10,600	11,690
College Credit Hours Generated	28,000	28,161	44,087	62,195	76,756	79,488	85,150	92,092
Credentials Earned	--	548	711	1,419	1,682	1,224	1,459	1,420

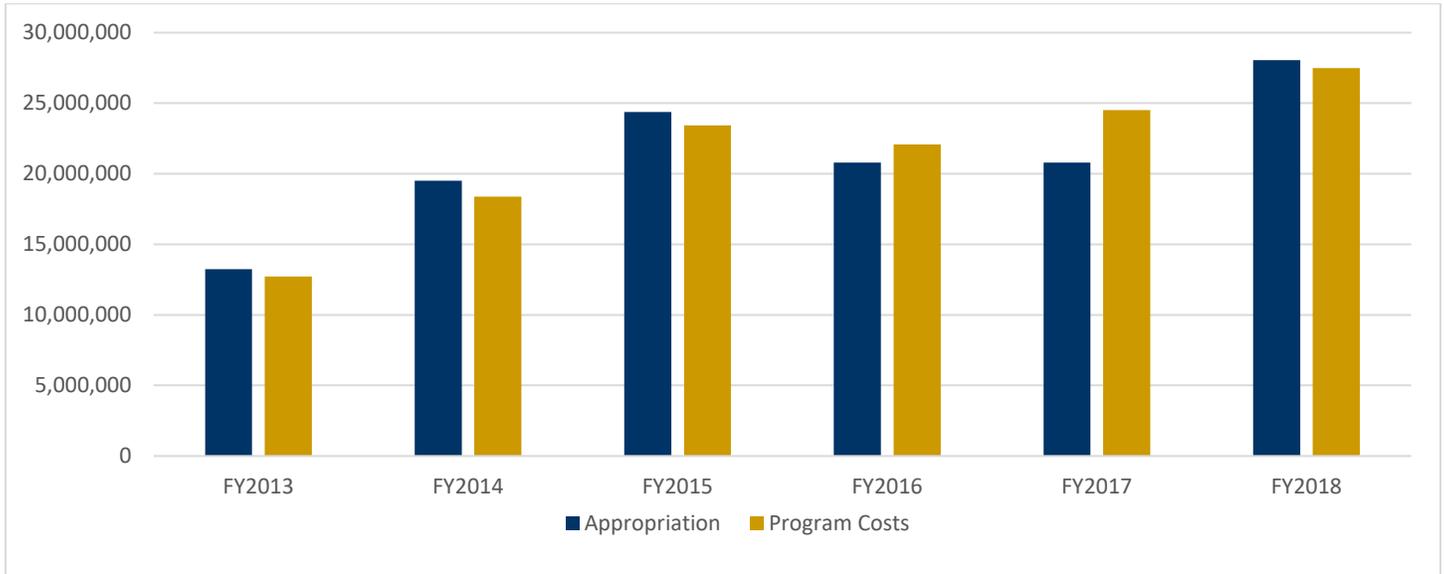
Source: KBOR KHEDS AY Collection 2010-2018; KSDE Credential Production

RESULTS

- Approximately 30% of participants complete a college-level certificate/degree in high school
- Nearly two-thirds of Excel in CTE students enroll in college and go on to earn more credits/degrees than traditional CTE students
- Excel in CTE credits lead to higher employment and higher wages of approximately \$3,500 per year
- Excel in CTE give high school students a “head start” on college
- Excel in CTE provides talent for Kansas businesses

Source: Donna K. Ginther, Director, Center for Science, Technology & Economic Policy at the Institute for Policy & Social Research (2016)

STATE FUNDING



	(FY 2013)	(FY 2014)	(FY 2015)	(FY 2016)	(FY 2017)	(FY 2018)*
Appropriation	13,250,000	19,500,000	24,380,000	20,800,000	20,800,000	28,050,000
Program Costs	12,712,586	18,378,974	23,441,534	22,072,624	24,518,758	27,479,481

*High School credential incentive funding moved to the Kansas Department of Education budget in FY2018

Delegate Distribution of State Funds for Technical Education (Excel in CTE, AO-K Proviso) and Postsecondary Education Performance Based Incentives Fund (GED Accelerator)

Summary and Staff Recommendation

The Board of Regents typically approves the first of two payments to participating institutions in January of each year for the Excel in CTE, the Accelerating Opportunity: Kansas (AOK) and the GED Accelerator initiative. The schedule of meetings for the TEA and the Board of Regents prevents the usual approval sequence of presenting distributions first to the TEA and then to the Board of Regents. Staff recommends the TEA delegate its approval of the distributions to the TEA's Budget and Finance Committee, which will have a meeting January 10, 2019, prior to the Board of Regents' meeting on January 16-17, 2019, and then the TEA receive a briefing on the distributions at its January 23, 2019 meeting.

12/6/18

Background

K.S.A. 72-4489 was enacted by the 2012 Legislature to establish the Career Technical Education Incentive Program. The program offers state-financed college tuition for high school students in postsecondary technical education courses resulting in an industry-recognized credential in high demand occupations. As the program has been promoted, its success was not matched with greater appropriations from the State General Fund for two years. FY 2016 was the first year when the appropriation for the program was insufficient to finance eligible tuition payments to the participating colleges. The colleges' distributions were reduced by \$1,379,353 or 5.7 percent. In FY 2017, the distributions were reduced again, this time by \$3.7 million, or 17.9 percent. Last year (FY 2018), an additional \$7.3 million was allocated to the program which fully funded eligible tuition payments.

The Postsecondary Education Performance-Based Incentives Fund (known as the GED Accelerator initiative) provides incentives to eligible institutions—community colleges, technical colleges and Washburn University Institute of Technology—for adults seeking and earning a GED/high school equivalency diploma and/or an identified industry credential while enrolled in an eligible postsecondary technical education program. Eligible institutions can receive \$170 for each adult enrolled in a postsecondary technical program while pursuing a GED/high school equivalency diploma (\$150 of which must be used for the GED/high school equivalency tests), \$500 for each adult earning a GED/high school equivalency diploma, and \$1,000 for each adult earning an identified industry credential while enrolled in an eligible postsecondary technical education program.

Since the programs' inception, funding for has been distributed twice a year based on live student enrollment data submitted by the institutions in the fall and spring. The proposed distribution amounts for January 2019 will be calculated based on current FY 2019 enrollments.

Staff Recommendation

Staff recommends authority be given to the TEA Budget & Finance Committee to approve the distribution of funds at their committee meeting on January 10 so that the fund distributions can move forward for Board approval on January 16, and then be distributed to the colleges. The timing of the TEA meeting and the Board's meeting in January 2019 prevent the usual sequence of approvals. This delegation is a one-time authorization and a report on the distributions will be made to the full TEA at the meeting on January 23.

Academic Year 2017 Kansas Information Training Program (K-TIP) Review Part 2

Summary and Staff Recommendation

Purpose: *K.S.A. 74-32,418 (previously K.S.A. 72-4451) established the Kansas Training Information Program (K-TIP), which is published annually by program and by institution. K-TIP shows employment placement rates and average salaries earned by students completing career technical education programs in the state during the most recently ended fiscal year, as well as the overall number of career technical program majors, number of career technical program graduates, and students pursuing additional education or training by program and institution.*

12/6/2018

Background

Compiled from data submitted to the Kansas Board of Regents by the individual institutions, K-TIP includes data for all approved postsecondary career technical education programs offered by technical colleges, community colleges, Washburn University Institute of Technology, and Wichita State University Campus of Applied Sciences and Technology. Employment and wage information is reported for program graduates who have left public postsecondary education. Supplemental employment data provided by the Kansas Department of Labor and Missouri Department of Labor has been included where available. Many factors influence actual annual earnings, such as regional differences, self-employment status, and data availability.

Academic Year 2017 Modifications

Two modifications to the Academic Year 2017 report that are noteworthy. First, K-TIP has been supplemented for the first time with employment data provided by the Missouri Department of Labor. If available, this data impacts the categories of:

- *Total # of Graduates Exited and Employed*
- *Average Wage: Graduates Exited and Employed*
- *Median Wage: Graduates Exited and Employed*

Second, the Average and Median wages for Graduates Exiting and Employed have historically been reported *for the end of the 2nd quarter after the end of the Academic Year* (which is October, November, and December) for all students. For the purposes of alignment with other reporting such as that for the Workforce Innovation Opportunity Act (WIOA), the Average and Median wages for Graduates Exiting and Employed for Academic Year 2017 are reported *for the end of the 2nd quarter after exiting postsecondary education* for each individual student.

Methodology

Measures and Targets

To provide measures and targets for comparison of year-over-year performance concerning wages and employment; KBOR staff utilized previously agreed upon measures as well as criteria utilized in other incentive programs to ensure a consistent approach to program review.

Employment Target for Graduates Exited: The measure and target for employment “*of the students completing an approved exit point and exited postsecondary education, 80% must be employed by the end of the 2nd quarter after exiting postsecondary education*” was utilized as the benchmark at the Program level.

Wages Target for Graduates Exited: The measure and target for “*the wage for students completing an approved exit point and exited postsecondary education must be 95% of the statewide entry level wage for the occupation corresponding to the field of study as reported in the Kansas DOL Wage Survey*” was used as the benchmark at the Program level.

K-TIP Review (Part 2)

K-TIP Highlights Part 2 will examine AY2017 performance at the program level for high-performing programs. Further review at program levels will be forthcoming at future Technical Education Authority meetings.

The **Systemwide: AY2017 High Performing Associate / Certificate Programs** table lists programs, systemwide, based on (1) the highest average salaries systemwide, and (2) the percentage of graduates exiting postsecondary and becoming employed, and is sorted by the Average Wage of Graduates Exited and Employed.

While a variety of methods may also be used to evaluate high performing/high impact programs, the method used in this analysis:

1. Includes only programs with salaries averaging above \$40K (the KS mean or average wage in 2017 was \$44,570, per the 2018 Kansas Wage Survey).

Total # programs with Average Salary above \$40K	2012	2013	2014	2015	2016	2017
	19	32	26	31	28	38

2. Removes those programs with less than 80% Graduates Exited and Employed.

Removed: Programs less than 80% Graduates Exited and Employed	2012	2013	2014	2015	2016	2017
	2	5	8	10	5	6

3. Removes those programs with less than five Graduates Exited and Employed. (When there are less than five students in these cohorts, small cell suppression prohibits the calculation of the percentage of graduates employed.)

Removed: Programs with less than five Graduates Exited and Employed	2012	2013	2014	2015	2016	2017
	8	12	4	7	7	8

4. Removes those programs with single digit totals Graduates Exited and Employed.

Removed: Programs with single-digit totals Graduates Exited and Employed	2012	2013	2014	2015	2016	2017
	2	2	3	1	4	6

AY 2017 High Performing Program Totals	Declared Majors	Graduates	Graduates Exited	Graduates Exited and Employed	Percentage Graduates Exited and Employed
	6,290	1,508	1,197	1,116	93.23%

Programs recurring on the High Performing Program list are color-coded by the number of years according to the following table:

Recurring six years
Recurring five of six years
Recurring four of six years
Recurring three of six years
Recurring two of six years

1. * Denotes programs corresponding to Occupation Codes considered High Demand
2. ***Denotes programs corresponding to Occupation Codes considered High Demand / High Wage
3. NA = data not available

Systemwide: AY2017 High Performing Associate / Certificate Programs

Program Name	Academic Year 2017 K-TIP Data						2018 Kansas Wage Survey				2016-2026 Occupational Projections		
	CIP Code	Total # Declared Majors	Total # Graduates Exited	Total # Graduates Exited and Employed	% Graduates Exited and Employed	Average Wage: Graduates Exited and Employed	Median Wage: Graduates Exited and Employed	Standard Occupation Code (SOC)	Statewide Entry-Level Annual Wage	Statewide Entry-Level Hourly Wage	Annual % Change	Annual # Openings Change	Long-Term Occupational Projection (2016-2026) Educational Level (Per Bureau of Labor Statistics)
*Sheet Metal Technology/Sheetworking	48.0506	50	11	11	100.00%	\$67,649	\$63,720	47-2211	\$25,840	\$12.42	0.6%	249	HS Diploma or Equivalent w / Apprenticeship
***Dental Hygiene/Hygienist	51.0602	148	49	45	91.84%	\$51,815	\$50,516	29-2021	\$47,010	\$22.60	0.1%	142	Associate's Degree
***Aircraft Powerplant Technology/Technician	47.0608	83	39	33	84.62%	\$51,335	\$43,476	49-3011	\$45,300	\$21.78	0.1%	130	PS Non-Degree Award
***Mechanic and Repair Technologies/Technicians, Other	47.9999	175	33	30	90.91%	\$50,056	\$39,394	***49-9081	\$41,290	\$19.85	NA	NA	PS Non-Degree Award w / Long-Term OJT
								***51-8013	\$35,990	\$17.30	0.0%	49	HS Diploma or Equivalent w / Long-Term OJT
*Recording Arts Technology/Technician	10.0203	116	13	13	100.00%	\$49,965	\$38,214	27-4011	\$21,990	\$10.57	0.5%	43	PS Non-Degree Award w / Short-Term OJT
***Industrial Mechanics and Maintenance Technology	47.0303	89	25	21	84.00%	\$48,893	\$52,062	49-9041	\$35,760	\$17.19	0.6%	453	HS Diploma or Equivalent w / Long-Term OJT
***Registered Nursing/Registered Nurse	51.3801	2,897	577	551	95.49%	\$48,390	\$47,108	29-1141	\$45,690	\$21.96	1.0%	1,867	Bachelor's Degree / (Associate's Degree)
***Respiratory Care Therapy/Therapist	51.0908	226	35	30	85.71%	\$47,682	\$45,551	29-1126	\$43,990	\$21.15	2.1%	96	Associate's Degree
Industrial Radiologic Technology/Technician	41.0204	248	59	51	86.44%	\$46,388	\$47,053	19-4051	NA	NA	NA	NA	Associate's Degree w / Moderate OJT
*Fire Science/Fire-Fighting	43.0203	575	43	40	93.02%	\$46,204	\$39,325	33-2011	\$24,520	\$11.79	0.6%	272	PS Non-Degree Award w / Long-Term OJT
*Emergency Medical Technology/Technician (EMT Paramedic)	51.0904	421	65	64	98.46%	\$45,757	\$46,745	29-2041	\$20,160	\$9.69	0.6%	191	PS Non-Degree Award
***Restaurant, Culinary, and Catering Management/Manager	12.0504	108	16	13	81.25%	\$45,383	\$42,537	11-9051	\$39,590	\$19.03	0.8%	288	HS Diploma or Equivalent
*Health Information/Medical Records Technology/Technician	51.0707	337	47	41	87.23%	\$45,316	\$39,642	29-2071	\$26,230	\$12.61	0.6%	154	PS Non-Degree Award
***Railroad and Railway Transportation	49.0208	105	45	42	93.33%	\$44,506	\$42,606	53-4031	\$47,070	\$22.63	NA	NA	HS Diploma or Equivalent w / Moderate OJT
***Agricultural Mechanics and Equipment/Machine Technology	01.0205	154	40	37	92.50%	\$42,371	\$38,991	49-3041	\$30,490	\$14.66	0.4%	158	HS Diploma or Equivalent w / Long-Term OJT
***Electrical and Power Transmission Installation/Installer, General	46.0301	210	58	55	94.83%	\$42,259	\$41,320	49-9051	\$49,190	\$23.65	0.7%	156	HS Diploma or Equivalent w / Long-Term OJT
Funeral Service and Mortuary Science, General	12.0301	115	29	27	93.10%	\$40,415	\$36,500	39-4031	\$31,650	\$15.22	-0.9%	41	Associate's Degree w / Long-Term OJT
*Culinary Arts/Chef Training	12.0503	233	13	12	92.31%	\$40,394	\$33,320	35-1011	\$22,010	\$10.58	0.7%	170	HS Diploma or Equivalent

Non-Traditional Participation and Completion Improvement Grant

***Purpose:** Through the Kansas State Carl D. Perkins Plan for Career and Technical Education, grant funds have been established to support gender non-traditional participation and completion. The purpose of the grant is to develop and improve programs supporting participation and success of underrepresented gender groups in established and emerging professions in high-skill high-wage Perkins approved CTE programs. 12/06/2018*

Proposals Awarded:

- **Barton Community College** **\$12,300**
Project: Increase Registered Nursing and Medical Assistant program exposure to non-traditional students with digital billboards, pop-up recruitment displays, social media/web advertising, and direct mail.
- **Colby Community College** **\$15,000**
Project: Increase Veterinarian Nursing program exposure to non-traditional students with a billboard in the Denver metro area and web radio advertising.
- **Dodge City Community College** **\$ 6,000**
Project: Produce a television commercial to target non-traditional Automotive Technology students.
- **Fort Scott Community College** **\$ 2,100**
Project: Create and produce advertisements for non-traditional students in the Nursing program using television, web, and social media platforms.
- **Garden City Community College** **\$11,725**
Project: Produce and air television and social media commercials targeting non-traditional enrollment into the Fire Science program
- **Kansas City Kansas Community College** **\$ 1,900**
Project: Purchase smaller personal protective equipment to fit female students in the Welding program including welding jackets, helmets, and welding gloves.
- **Labette Community College** **\$22,600**
Project: Create and implement an outreach campaign to attract female students into the Welding program using videos, billboards, retractable table top recruitment displays, and social media.
- **North Central Kansas Technical College** **\$35,000**
Project: Create and produce advertisements for non-traditional students in Automotive Technology, Carpentry/Cabinetmaking, Electrical Technology, Plumbing, Heating and Air-Conditioning, and Welding Technology programs using television, web, and social media platforms.
- **Northwest Kansas Technical College** **\$10,750**
Project: Install a wrap promoting non-traditional participation in the Carpentry and Diesel Technology programs on the Commercial Drivers' License semi box trailer. The wrap will be designed by the in-house Computer Graphic Technology program.
- **Washburn Institute of Technology** **\$25,000**
Project: Produce and implement an outreach campaign involving videos, bus placards, social media to target non-traditional participation in the Auto Collision, Commercial and Heavy Construction and Industrial Machine Mechanic programs.
- **Wichita Area Technical College** **\$18,576.50**
Project: Create and produce a video and digital marketing covering a local Trade Industry for Women event and purchase smaller personal protective equipment to fit female students in the Carpentry and Climate & Energy Control programs.

TOTAL AWARDED \$160,951.50

Note: Informational Purposes Only