KENTUCKY DEPARTMENT OF EDUCATION

ADMINISTRATIVE SUPPORT

and

MANAGEMENT & ENTREPRENEURSHIP

FUTURING PANEL REPORT

May 15, 2024

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Introduction and Project Overview

On May 15, 2024, the Kentucky Department of Education and MBA Research and Curriculum Center partnered together to convene a futuring panel in Lexington, Kentucky. Participants included business managers, entrepreneurs, and administrative support professionals with at least three years of experience in their career field.

Futuring panel participants were asked to provide their perspectives on forward-thinking trends and issues affecting their specific industry sectors. They also provided input on related skill sets, emerging occupations, and certifications of value and discussed ethical dilemmas in the workplace. Lastly, they reviewed and validated ethical leadership traits as well as Kentucky's curriculum standards for the Administrative Support and Management and Entrepreneurship pathways.

Kentucky Workforce Data

As a part of developing this report, MBA Research did extensive research on the current and future Kentucky workforce to assess the demand for business administration-related occupations in the state. Our research clearly indicates that maintaining strong business administration programs is important to Kentucky's economy. Many of the largest and fastest-growing occupations in Kentucky are business administration-related. Demand for business, marketing, and finance professionals is strong in Kentucky, both on a short-term and long-term basis. What follows is an overview of our workforce-related findings.

Short-Term Projections

The table on the following page is sorted by the greatest numeric change in projected employment from 2023-2025. When sorted this way, business administration occupations show a strong presence, with representation in four of the top 20 fields.

- When looking at projected 2025 employment, the four business administration occupations highlighted in yellow below comprise four of the twenty largest occupations in Kentucky (Office and Administrative Support, Management, Business and Financial Operations, and General and Operations Managers).

- Despite making up less than 1% of Kentucky's 731 occupational titles, these four fields represent 7,798 jobs or 9% of all projected growth from 2023-2025.

- Additionally, those four fields represent 557,192 jobs or 13% of all projected employment for 2023-2025.

*[See the table entitled **Kentucky Short-Term Occupational Outlook 2023-2025** on the following page.]*

Kentucky Short-Term Occupational Outlook 2023-2025

Occupational Title	2023 Estimated Employment	2025 Projected Employment	Numeric Change 2023-2025	Percent Change 2023-2025
Transportation and Material Moving Occupations	236,054	242,775	6,721	2.85%
Healthcare Practitioners and Technical Occupations	145,850	150,394	4,544	3.12%
Management Occupations	136,889	140,463	3,574	2.61%
Healthcare Support Occupations	76,180	79,441	3,261	4.28%
Construction and Extraction Occupations	87,319	90,507	3,188	3.65%
Installation, Maintenance, and Repair Occupations	93,160	95,968	2,808	3.01%
Food Preparation and Serving Related Occupations	177,088	179,631	2,543	1.44%
Production Occupations	194,284	196,712	2,428	1.25%
Educational Instruction and Library Occupations	96,172	98,538	2,366	2.46%
Business and Financial Operations Occupations	95,208	97,146	1,938	2.04%
Laborers and Freight, Stock, and Material Movers, Hand	57,084	58,858	1,774	3.11%
Building and Grounds Cleaning and Maintenance Occupations	59,760	61,529	1,769	2.96%
Home Health and Personal Care Aides	26,227	27,836	1,609	6.13%
Computer and Mathematical Occupations	41,509	43,053	1,544	3.72%
Registered Nurses	48,691	50,160	1,469	3.02%
Personal Care and Service Occupations	53,524	54,877	1,353	2.53%
General and Operations Managers	52,781	53,985	1,204	2.28%
Stockers and Order Fillers	49,417	50,547	1,130	2.29%
Community and Social Service Occupations	36,203	37,311	1,108	3.06%
Office and Administrative Support Occupations	264,476	265,558	1,082	0.41%

Excel download link for full long-term projection data:
https://kystats.ky.gov/Reports/Files

Long-Term Projections

Business administration occupations have a similarly strong story in the long term, as evident when exploring projections through 2032. The table on the following page is sorted by greatest change in numeric projected employment from 2022-2032.

- Much like 2025, when looking at projected 2032 employment, the three business administration occupations highlighted in yellow below comprise three of the twenty largest occupations in Kentucky (Management, Business and Financial Operations, and General and Operations Managers). Office and Administrative Support, not listed below also ranks in the top five for projected 2032 employment.

- The 7.55%, 5.57% and 6.24% growth from 2022-2032 for Management Occupations, Business and Financial Occupations, and General and Operations Managers put those roles in the top third of the state in terms of percentage of growth through 2032.

These figures highlight that both the overall employment totals and growth of business administration roles in Kentucky are expected to remain strong through at least the late 2020s.

*[See the table entitled **Kentucky Long-Term Occupational Outlook 2022-2032** on the following page.]*

Kentucky Long-Term Occupational Outlook 2022-2032

Occupational Title	Base Year Employment Estimate 2020	Projected Year Employment Estimate 2030	Numeric Change 2020-2030	Percent Change 2020-2030
Transportation and Material Moving Occupations	237,307	262,240	24,933	10.51%
Healthcare Practitioners and Technical Occupations	142,377	155,313	12,936	9.09%
Healthcare Support Occupations	73,147	83,596	10,449	14.28%
Management Occupations	132,055	142,022	9,967	7.55%
Food Preparation and Serving Related Occupations	170,627	179,391	8,764	5.14%
Laborers and Freight, Stock, and Material Movers, Hand	57,766	64,356	6,590	11.41%
Installation, Maintenance, and Repair Occupations	90,553	96,708	6,155	6.8%
Stockers and Order Fillers	50,636	56,762	6,126	12.1%
Home Health and Personal Care Aides	24,650	30,539	5,889	23.89%
Business and Financial Operations Occupations	93,329	98,528	5,199	5.57%
Computer and Mathematical Occupations	40,424	45,571	5,147	12.73%
Cooks, Restaurant	16,677	21,581	4,904	29.41%
Production Occupations	191,542	195,146	3,604	1.88%
Community and Social Service Occupations	34,780	38,144	3,364	9.67%
General and Operations Managers	51,299	54,502	3,203	6.24%
Building and Grounds Cleaning and Maintenance Occupations	58,341	61,478	3,137	5.38%
Registered Nurses	47,295	50,400	3,105	6.57%
Personal Care and Service Occupations	50,611	53,604	2,993	5.91%
Medical and Health Services Managers	9,659	12,440	2,781	28.79%
Construction and Extraction Occupations	82,222	84,991	2,769	3.37%

Excel download link for full long-term projection data:
https://kystats.ky.gov/KYLMI/EmploymentProjections

Trends Discussion

Panelists were asked to identify trends that are affecting or changing the way they do business or how they plan for the future. Group facilitators stressed the importance of identifying trends evident in the participants' area of expertise along with any related skill sets needed to address the trends.

Futuring panel members were also encouraged to think about trends from a business/workplace perspective rather than from an educational/teaching perspective. Participants were given six general trend categories to think about as they identified trends.

Trend Categories

Cultural: The major elements of culture including material culture, language, aesthetics, education, religion, attitudes, values, and social organization

Environmental: Any forces that impact how businesses interact with the environment and use their natural resources (e.g., fresh water, air, living organisms, metal ores, oil, most forms of energy)

Global/Political: The impact of a political ideology (e.g., capitalism, socialism, communism), nationalism, stability, and international relations on business

Governance: Factors that impact the principles and standards that govern business decision-making and business oversight. Governance refers to all processes and decisions that seek to define actions, grant power, and verify performance.

Regulatory/Legal: The full breadth of laws, rules, and regulations that businesses are subjected to by governing bodies, whether through civil or common code, domestic or international law, or governmental entities, agencies, or jurisdictions

Technological: The direct and indirect impact of technology on any aspect of business, from strategy to operations to tactics

Trends & Related Topics

Top Trends in Business and Finance

- Changing Views & Uses of AI

- Cultural Shifts in the Workplace

- Declining Interest in Managerial Roles

- Younger Workforce Entering with Critical Gaps

Additional Trends

- Speed of Technology Change

- Continuing Need for Data Analysis & Interpretation

- New Regulatory Requirements

- Privacy Laws & Data Protection

Kentucky Trends

In addition to identifying the top trends, futuring panel participants were asked to share the skills needed in a changing workplace based on the trends identified. Immediately following each trend and its related skills, teachers will find curriculum resources that are applicable to teaching the skills.

As a reminder, Kentucky teachers have free access to all MBA Research LAP modules via their Learning Center account (login required). Simply search in Commons for the LAP titles that you would like to use. Don't have an account set up? Contact MBA Research to get started.

Top Trends

Trend: Changing Views & Uses of AI
Acceptance of AI

Artificial intelligence (AI) and other recent technologies can help to maximize productivity while minimizing costs. Despite this, some businesses and industries have adopted AI more slowly than others due to regulatory barriers or lack of buy-in from relevant partners. One such example is the healthcare industry which has been less accepting of AI due to a lack of full approval from insurance agencies that work in tandem with key healthcare partners.

Applications of AI

Previous futuring panels brought up different uses of AI within their respective industries. This trend has persisted as additional uses of AI were mentioned particularly in the finance industry. AI is being used by credit unions for making new account decisions, loan decisions, and decisions around fraud.

Related Skill Sets

- Understanding of AI tools

- Ability to write effective prompts for AI programs

- Editing and proofreading written materials, images, and other AI outputs

- Ethical considerations related to AI

- Written communication skills

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-NF-003: TECH-tastic (Technology's Impact on Business)

- LAP-NF-110: In the Know (Nature of Information Management)

- LAP-NF-111: FYI (Ethics in Information Management)

Trend: Cultural Shifts in the Workplace

Heightened Awareness Around Mental Health

Following an increase in reported mental health issues both during and immediately following the pandemic, there has been a gradual shift in acceptance of taking care of mental health. Mental health days in the workforce are being incorporated more often and managers are more apt to understand the need for them. Some panelists noted their own workplace surveys showing high stress and burnout at work. Yet some businesses have found it easier to try to address symptoms rather than the root cause. They are sometimes unable to identify if burnout is due to organizational design, benefits, pay, or the work itself.

Decline in Face-to-Face Communication

Businesses are still exploring the best ways to communicate with their workers in an era of less in-person work post-Covid. While senior leadership and management may be comfortable communicating remotely, newer employees can often benefit from face-to-face interactions as they learn the ins and outs of their job. Still, a remote workforce can benefit both employees and employers. If employees don't have to commute to the workplace, they have more time to care for their family and personal life. They are often happier and more productive when working a flexible remote schedule—which can result in less worker turnover. Therefore, for some businesses a hybrid schedule offering the perks of remote work and the much needed in-person component for newer staff may offer the best of both worlds.

Trend: Increase in Employee Activism

Panelists noted greater activism within their businesses and even their career fields. They also raised valid questions pertaining to the importance of those issues and how outward facing both employers and employees should be in promoting their stances. It is important to remember that even U.S. based industries are heavily impacted by global affairs, and as such, having a firm understanding of world history can help businesses better understand the cause-and-effect relationship of geopolitical affairs on their day-to-day work.

Related Skill Sets

- Emotional intelligence

- Self-awareness and reflection

- Stress management

- Communication skills, both face-to-face and virtually

- Familiarity with remote work tools and software

- Understanding of factors affecting the business environment

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-EI-001: EQ and You (Emotional Intelligence)

- LAP-EI-126: Assess Yourself (Assessing Your Personal Behavior and Values)

- LAP-EI-028: Keep Your Cool (Stress Management)

- LAP-EI-129: Can We Talk? (Fostering Open, Honest Communication)

- LAP-EI-140: More Than Just Talk (Effective Communication)

- LAP-EC-105: What's Shakin'? (Factors Affecting the Business Environment)

Trend: Declining Interest in Managerial Roles

Panelists indicated less interest in managerial roles both among external hires and internal promotions. Younger employees are sometimes less likely to want to be in management due to the perception of being in meetings all day and then having to work additional hours in the evenings to get their remaining work done. Employers may struggle to fill such roles if views around managerial roles don't change, including their hours and responsibilities. Some younger employees may also view their priorities differently regarding longevity at the job. Often, they switch jobs earlier and more frequently than prior generations, which can make it especially challenging for employers to develop managerial talent in-house.

Related Skill Sets

- Awareness of opportunities for advancement

- Understanding of management roles and responsibilities

- Development of career goals

- Communicating management opportunities to internal and external candidates

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-SM-001: Manage This! (Concept of Management)

- LAP-PD-918: Go for the Goal (Goal Setting)

<u>Trend: Younger Workforce Entering With Critical Gaps</u>

Even before the COVID-19 pandemic, the growing workforce skills gap was widely acknowledged as posing a real threat to economic growth globally and to the opportunities for individuals to find suitable employment in the rapidly changing workplace. The pandemic has served to exacerbate the situation as multiple panelists noted younger employees entering the workforce with an even wider gap in key skills needed to succeed. One such gap lies in etiquette around technology use in the workplace. While they may know how to schedule a meeting, often there is a lack of consideration for who is going to be at the meeting and whether everyone's schedules work for the given time.

Some businesses have also found that younger employees are afraid to fail and prefer being given precise instructions at every step. Some panelists theorized that this is due to growing up in an academic environment where they've been graded on a set scale their whole life with little to no ambiguity in their performance. As such, younger members of the workforce must be comfortable with failing on occasion and using those experiences to fuel their growth and success in work environments where they must make critical decisions with little to no supervision.

Related Skill Sets

- Interpersonal skills and social awareness in the workplace
- Communication skills
- Demonstrating initiative
- Adaptability
- Recognizing opportunities to learn from mistakes

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-EI-001: EQ and You (Emotional Intelligence)
- LAP-EI-006: Go With the Flow (Demonstrating Adaptability)
- LAP-EI-024: Hustle! (Taking Initiative)
- LAP-EI-092: Embrace the Unknown (Developing a Tolerance for Ambiguity)
- LAP-EI-129: Can We Talk? (Fostering Open, Honest Communication)
- LAP-EI-140: More Than Just Talk (Effective Communication)
- LAP-EI-903: Grin and Bear It (Using Feedback for Personal Growth)

Additional Trends

Trend: Speed of Technology Change

Businesses are constantly facing an uphill battle against the speed of advancements in technology. In the last ten years the speed of change went from "years to months." While younger generations are more well-versed with communication technology such as social media, they are not necessarily up to speed on business technology related to specific industries.

Related Skill Sets

- Strong tech skills with knowledge of different platforms

- Adaptability to the evolution of technology

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-NF-003: TECH-tastic (Technology's Impact on Business)

- LAP-NF-110: In the Know (Nature of Information Management)

- LAP-NF-111: FYI (Ethics in Information Management)

Trend: Continuing Need for Data Analysis & Interpretation

Data Analysis

In today's business world, data-driven decision-making is the norm. As a result, data analysis and interpretation are important tasks in any business occupation. Employees must understand how to select relevant data, process data, interpret data, and translate data into stories that others can grasp. In addition, today's employees must have the confidence to act on the data and make recommendations and decisions based on their analyses.

Related Skill Sets

- Identification and processing of relevant data

- Data interpretation/analysis

- Translating and communicating the data so that it is understood by the intended audience

- Making recommendations and decisions based on data analysis

- Proficiency in Excel

- Critical thinking

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-NF-110: In the Know (Nature of Information Management)

- LAP-PD-017: Weigh Your Options (Decision-Making)

Trend: New Regulatory Requirements

Businesses are facing challenges with new regulations. One such example during the trend's discussion involved new regulations for nursing home standards. These new standards are driving the need for additional positions at all nursing levels. Businesses must understand regulatory requirements, including why the regulations exist, the levels of regulations (i.e., local, state, national, global), types of laws (e.g., labor, environmental), and ways to stay in compliance with the laws and regulations. Trade associations can be allies to businesses in advocating for and against different regulations, as well as in educating businesses about applicable laws.

Related Skill Sets

- Understanding of types and levels of laws and regulations

- Ongoing professional development to stay up to date with regulations

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-EC-016: Regulate and Protect (Government and Business)

Trend: Privacy Laws & Data Protection

While important for all business staff, knowledge of privacy laws and data protection has become increasingly crucial for administrative staff. With admin serving as a connector to various departments, they are often handling sensitive information with regularity. Some businesses have opted to create specialized roles such as data administrators and data protection officers to ensure security around sensitive information.

Related Skill Sets

- Cybersecurity, privacy, and compliance regulations

- Types of consumer and business data that must be protected

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-EC-016: Regulate and Protect (Government and Business)

- LAP-CR-017: Trust Is a Must (Ethics in Customer Relationship Management)

- LAP-NF-111: FYI (Ethics in Information Management)

Trend: Navigating Virtual & In-Person Workspaces

Administrative staff, more than any other role, must be adept at communicating effectively between employees across different workspaces. While businesses may have a mixture of hybrid and fully remote positions, administrative staff may be more likely to be in the office compared to their other coworkers. As such, they need to be comfortable with serving as a liaison between employees operating across different work models, time zones, and more.

Related Skill Sets

- Communication skills

- Familiarity with remote work tools and software

- Choosing the appropriate medium for workplace communication

Curriculum Resources

Resources to facilitate learning about this trend are available in the following LAP modules:

- LAP-NF-003: TECH-tastic (Technology's Impact on Business)

- LAP-NF-110: In the Know (Nature of Information Management)

Business Ethics/Ethical Leadership

MBA Research and Curriculum Center and the Daniels Fund have formed a partnership to promote the teaching and learning of business ethics at the high school level. As part of our research to help strengthen our curricula and instructional materials in the business ethics realm and to learn firsthand about issues in business ethics within workplaces, we asked futuring panel participants to review and rank the importance of ethical leadership traits, suggest additional ethical leadership traits, and talk about ethics generally within their career area.

Business and Finance Futuring Panel: Ethical Leadership Traits Validation

The traits are listed in the order that panelists reviewed and validated them.

Ethical Leadership Traits	Critical	Recommended	Not Needed
1. Describe the nature of emotional intelligence	84%	16%	0%
2. Recognize and overcome personal biases and stereotypes	80%	20%	0%
3. Assess personal strengths and weaknesses	44%	56%	0%
4. Assess personal behavior and values	64%	36%	0%
5. Demonstrate honesty and integrity	100%	0%	0%
6. Demonstrate responsible behavior	92%	8%	0%
7. Demonstrate fairness	60%	40%	0%
8. Assess risks of personal decisions	52%	48%	0%
9. Take responsibility for decisions and actions	100%	0%	0%
10. Build trust in relationships	84%	16%	0%
11. Describe the nature of ethics	33%	63%	4%
12. Explain reasons for ethical dilemmas	20%	72%	8%
13. Recognize and respond to ethical dilemmas	68%	32%	0%
14. Explain the use of feedback for personal growth	36%	56%	8%
15. Show empathy for others	76%	24%	0%
16. Exhibit cultural sensitivity	68%	28%	4%
17. Explain the nature of effective communications	48%	52%	0%
18. Foster open, honest communication	76%	24%	0%
19. Participate as a team member	60%	40%	0%
20. Explain the concept of leadership	28%	60%	12%
21. Explain the nature of ethical leadership	32%	60%	8%
22. Model ethical behavior	100%	0%	0%
23. Determine personal vision	16%	76%	8%
24. Inspire others	24%	68%	8%

25. Develop an achievement orientation	24%	72%	4%
26. Enlist others in working toward a shared vision	36%	60%	4%
27. Treat others with dignity and respect	100%	0%	0%
28. Foster positive working relationships	96%	4%	0%
29. Assess long-term value and impact of actions on others	44%	56%	0%
30. Set personal goals	28%	64%	8%
31. Follow rules of conduct	83%	17%	0%
32. Make decisions	72%	28%	0%
33. Demonstrate problem-solving skills	88%	12%	0%

Discussion on Ethics in the Workplace

Participants noted that the breadth of ethics has grown and expanded in recent years.

Maintaining Privacy
Misconceptions about what privacy looks like are commonplace but especially prevalent in healthcare fields with HIPAA often being misunderstood. In small towns, you frequently treat family, friends, coworkers, and more who all know each other, which can make it difficult to keep information private. Many people struggle with knowing what can and can't be said but panelists indicated that while the intent isn't necessarily malicious, it still counts as a violation.

Social Responsibility
While jobs have baseline obligations to provide regarding compensation and safety among other areas, panelists discussed the idea of social responsibility among employers. Employers should ask what else they can provide both to employees and their consumers besides their typical services. Some ideas that emerged included philanthropy, volunteer work, and hosting community and cultural events.

Review of Kentucky CTE Standards

Based on an analysis of the validation panel results, Kentucky's standards for its Management and Entrepreneurship and Administrative Support pathways are strong. While individual participants had differing views regarding the criticality of the standards, most performance indicators within the two pathways were recognized as critical or recommended by more than half of all respondents.

Strengths

Both pathways include standards, or topics, that scored high in criticality. The following standards were deemed critical by 75% or more of panel members.

- Specific to Administrative Support:
  o Proofread documents (NF:180)
  o Prepare company correspondence (NF:192)
  o Prepare materials for presentations (NF:195)
  o Edit documents (NF:196)
  o Adhere to laws pertaining to computer crime, fraud, and abuse (OP:208)
  o Follow policies to prevent loss of data integrity (OP:210)

- Specific to Management and Entrepreneurship:
  o Comply with financial reporting and internal control regulations in accounting (BL:088)
  o Describe the nature of budgets (FI:106)
  o Describe the nature of cost-benefit analysis (FI:357)
  o Develop company's/department's budget (FI:099)
  o Interpret financial statements (FI:102)
  o Interpret cash-flow statements (FI:541)
  o Analyze sales returns and allowances (FI:635)
  o Analyze the collection of accounts receivable (FI:636)
  o Explain the nature of accounts receivable (FI:424)
  o Account for sales (e.g., invoices, sales receipts, etc.) (FI:682)
  o Process accounts receivable (e.g., post to ledger, process payment, process uncollectible account, etc.) (FI:683)
  o Analyze sales transactions (FI:426)
  o Explain the nature of overhead/operating costs (OP:024)
  o Control use of supplies (OP:026)
  o Conduct breakeven analysis (OP:192)
  o Adhere to company protocols and policies (PD:250)

- Shared by Administrative Support and Management and Entrepreneurship:
    - Comply with the spirit and intent of laws and regulations (BL:163)
    - Employ communication styles appropriate to target audience (CO:084)
    - Write professional emails (CO:090)
    - Distinguish between using social media for business and personal purposes (CO:206)
    - Choose and use appropriate channel for workplace communication (CO:092)
    - Adapt communication to the cultural and social differences among clients (CR:019)
    - Handle difficult customers (CR:009)
    - Build trust in relationships (EI:128)
    - Manage commitments in a timely manner (EI:077)
    - Maintain the confidentiality of others (EI:103)
    - Use conflict-resolution skills (EI:015)
    - Participate as a team member (EI:045)
    - Model ethical behavior (EI:132)
    - Demonstrate adaptability (EI:006)
    - Foster positive working relationships (EI:037)
    - Consider conflicting viewpoints (EI:136)
    - Protect company information and intangibles (OP:153)
    - Explain information privacy, security, and confidentiality considerations in business (OP:441)
    - Maintain data security (OP:064)
    - Follow rules of conduct (PD:251)
    - Make decisions (PD:017)
    - Demonstrate problem-solving skills (PD:077)
    - Complete a job application (PD:027)
    - Interview for a job (PD:028)
    - Prepare a resume (PD:031)

Further Investigation/Review

A handful of standards were identified as not needed by 33% or more of panel members. Those standards include the following performance indicators.

- Specific to Administrative Support:
  - Identify the impact of small business/entrepreneurship on market economies (EC:065)
  - Operate fax machines (OP:200)
  - Coordinate direct mailings (OP:350)
  - Follow manufacturer's written procedures to fix technical problem (OP:204)

- Specific to Management and Entrepreneurship:
  - Explain the role of the Federal Reserve System (EC:097)
  - Explain the concept of fiscal policies (EC:074)
  - Explain the nature of global trade (EC:016)
  - Interpret securities table (FI:275)
  - Discuss the roles and responsibilities of accounting-standards-setting bodies (i.e., SEC, FASB, IASB, GASB) (PD:295)

- Shared by Administrative Support and Management and Entrepreneurship:
  - Explain the types of economic systems (EC:007)
  - Explain the concept of private enterprise (EC:009)
  - Explain the time value of money (FI:062)
  - Determine personal net worth (FI:562)
  - Explain the nature of tax liabilities (FI:067)
  - Write checks (FI:560)
  - Prepare personal income tax forms (FI:074)
  - Explain the nature of estate planning (FI:572)
  - Discuss considerations in selecting a financial-services provider (FI:076)

Kentucky Department of Education

Administrative Support Pathway Standards		Critical	Recommended	Not Needed
CO	**Communication Skills**			
CO:181	Greet and direct visitors	62%	14%	19%
CO:182	Take and relay messages	67%	19%	14%
CO:183	Field telephone calls	62%	14%	14%
CO:191	Arrange call-backs	67%	19%	14%
CO:184	Screen telephone calls	62%	14%	19%
EC	**Economics**			
EC:065	Identify the impact of small business and entrepreneurship on market economies	14%	43%	43%
HR	**Human Resources**			
HR:410	Discuss the nature of human resources management	48%	38%	14%
HR:360	Orient new employees	71%	14%	14%
NF	**Information Management**			
NF:001	Describe the nature of business records	43%	43%	14%
NF:164	Create calendar/schedule	67%	28%	5%
NF:165	Maintain appointment calendar	67%	24%	9%
NF:166	Verify appointments	62%	24%	14%
NF:188	Schedule appointments	71%	19%	10%
NF:189	Prepare itinerary	67%	19%	14%
NF:190	Arrange accommodations and entertainment for visitors	48%	38%	14%
NF:167	Make travel arrangements	57%	29%	14%
NF:168	Make meeting arrangements	62%	19%	14%
NF:180	Proofread documents	71%	19%	10%
NF:192	Prepare company correspondence	71%	19%	10%
NF:194	Prepare agendas	62%	24%	14%
NF:195	Prepare materials for presentations	71%	19%	10%
NF:181	Prepare reports	67%	24%	10%
NF:196	Edit documents	76%	14%	10%
NF:148	Discuss the nature of data mining	38%	33%	29%
NF:169	Process customer orders	62%	19%	19%

Administrative Support Pathway Standards		Critical	Recommended	Not Needed
NF:170	Route orders	57%	14%	29%
NF:171	File records electronically/manually	72%	19%	10%
NF:172	Organize and maintain files	71%	19%	10%
NF:173	Collect documentation needed to compile reports	72%	14%	14%
NF:174	Track shipping practices	52%	19%	24%
NF:191	Complete boss's expense reports after trips	38%	38%	24%
NF:175	Set up filing system appropriate for media/documents being stored	62%	19%	19%
OP	Operations			
OP:013	Explain routine security precautions	52%	33%	14%
OP:016	Place orders/reorders	67%	19%	14%
OP:031	Maintain inventory of supplies	67%	19%	14%
OP:443	Explain the concept of supply chain	48%	33%	19%
OP:197	Operate calculator	71%	14%	14%
OP:198	Operate copier	67%	19%	14%
OP:199	Operate printer	67%	19%	14%
OP:200	Operate fax machines	38%	14%	33%
OP:201	Operate postage meter	38%	24%	33%
OP:202	Operate scanner	57%	19%	24%
OP:347	Code and enter data	62%	29%	10%
OP:348	Open and distribute office mail/parcels	62%	19%	19%
OP:349	Update mail/telephone directories	52%	14%	29%
OP:350	Coordinate direct mailings	43%	24%	28%
OP:203	Isolate and identify source of technical problem	43%	38%	19%
OP:204	Follow manufacturer's written procedures to fix technical problem	43%	33%	24%
OP:205	Obtain technical support services	62%	24%	14%
OP:206	Adhere to technology safety and security policies (e.g., acceptable use policy, web page policies)	67%	19%	14%

Administrative Support Pathway Standards		Critical	Recommended	Not Needed
OP:207	Apply ergonomic techniques to technology tasks	43%	33%	24%
OP:208	Adhere to laws pertaining to computer crime, fraud, and abuse	71%	24%	4%
OP:209	Follow procedures used to restart and recover from situations (e.g., system failure, virus infection)	57%	33%	10%
OP:210	Follow policies to prevent loss of data integrity	81%	19%	0%
OP:211	Adhere to organization's policies for technology use	71%	29%	0%
PD	Professional Development			
PD:025	Explain employment opportunities in business	33%	48%	19%
SM	Strategic Management			
SM:001	Explain the concept of management	43%	43%	14%
Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
BL	Business Law			
BL:133	Discuss legal considerations in the finance industry	61%	22%	17%
BL:134	Discuss the effect of tax laws and regulations on financial transactions	52%	30%	17%
BL:088	Comply with financial reporting and internal control regulations in accounting	78%	13%	9%
BL:090	Discuss state regulation of the accounting industry	65%	22%	13%
BL:148	Discuss the nature and scope of compliance in the finance industry	57%	30%	13%
BL:149	Describe the use of technology in compliance	48%	35%	13%
CO	Communication Skills			
CO:067	Participate in problem-solving groups	65%	35%	0%

Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
CR	**Customer Relations**			
CR:012	Explain the responsibilities of finance professionals in providing client services	26%	52%	17%
CR:024	Use Customer Relationship Management (CRM) technology	57%	43%	0%
EC	**Economics**			
EC:072	Describe the nature of taxes	61%	22%	17%
EC:073	Discuss the nature of monetary policy	35%	39%	26%
EC:097	Explain the role of the Federal Reserve System	17%	44%	39%
EC:074	Explain the concept of fiscal policies	39%	26%	35%
EC:083	Describe the economic impact of inflation on business	52%	39%	9%
EC:084	Explain the economic impact of interest-rate fluctuations	48%	39%	13%
EC:018	Determine the impact of business cycles on business activities	57%	43%	0%
EC:016	Explain the nature of global trade	30%	39%	30%
FI	**Financial Analysis**			
FI:351	Discuss the role of ethics in accounting	59%	27%	14%
FI:352	Explain the use of technology in accounting	50%	41%	9%
FI:353	Explain legal considerations for accounting	59%	32%	9%
FI:091	Describe the nature of cash flow statements	73%	9%	18%
FI:093	Explain the nature of balance sheets	73%	18%	9%
FI:094	Describe the nature of income statements	73%	18%	9%
FI:355	Discuss the role of ethics in finance	59%	23%	14%
FI:336	Describe the role of financial institutions	55%	23%	18%
FI:274	Describe sources of securities information	29%	38%	29%

Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
FI:275	Interpret securities table	32%	41%	36%
FI:630	Explain the nature of statements of changes in equity	55%	27%	18%
FI:106	Describe the nature of budgets	82%	5%	13%
FI:357	Describe the nature of cost-benefit analysis	77%	18%	5%
FI:099	Develop company's/department's budget	82%	18%	0%
FI:097	Calculate financial ratios	73%	18%	9%
FI:102	Interpret financial statements	82%	14%	4%
FI:238	Calculate the time value of money	73%	19%	9%
FI:334	Describe types of financial statement analysis (e.g., ratio analysis, trend analysis, etc.)	64%	23%	13%
FI:541	Interpret cash-flow statements	77%	4%	14%
FI:342	Discuss the nature of the accounting cycle	59%	23%	18%
FI:673	Distinguish among types of business transactions	73%	14%	13%
FI:674	Distinguish among types of business documentation	64%	23%	13%
FI:378	Demonstrate the effects of transactions on the accounting equation	59%	32%	5%
FI:379	Prepare a chart of accounts	59%	23%	18%
FI:407	Explain the nature of special journals	41%	32%	27%
FI:381	Journalize business transactions	50%	27%	23%
FI:382	Post journal entries to general ledger accounts	55%	27%	18%
FI:383	Prepare a trial balance	55%	27%	18%
FI:384	Journalize and post adjusting entries	55%	23%	22%
FI:385	Journalize and post closing entries	55%	23%	22%
FI:386	Prepare a post-closing trial balance	55%	22%	23%
FI:675	Identify and correct accounting errors	64%	14%	18%
FI:387	Prepare worksheets	55%	23%	22%

Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
FI:631	Explain the impact of bank reconciliations on business activities	67%	19%	9%
FI:409	Explain the nature of accounts payable	69%	14%	18%
FI:680	Process accounts payable (e.g., maintain vendor file, post to ledger, process invoices and checks)	73%	14%	13%
FI:411	Analyze purchase transactions	73%	9%	18%
FI:635	Analyze sales returns and allowances	82%	4%	14%
FI:636	Analyze the collection of accounts receivable	82%	4%	14%
FI:424	Explain the nature of accounts receivable	73%	9%	18%
FI:682	Account for sales (e.g., invoices, sales receipts, etc.)	86%	14%	0%
FI:683	Process accounts receivable (e.g., post to ledger, process payment, process uncollectible account, etc.)	86%	14%	0%
FI:426	Analyze sales transactions	86%	14%	0%
FI:586	Explain methods used to value inventory (e.g., FIFO, LIFO, average cost, etc.)	50%	27%	18%
FI:642	Discuss the nature of long-term assets (e.g., tangible assets, intangible assets, natural resources, etc.)	59%	23%	18%
FI:718	Discuss the use of cost-volume-profit analysis	45%	41%	14%
FI:719	Discuss cost accounting systems (e.g., job costing, process costing, standard costing, activity-based costing [ABC])	50%	32%	18%
FI:388	Discuss the nature of annual reports	73%	14%	9%
FI:149	Prepare income statements	68%	23%	9%
FI:276	Explain information that can be obtained from financial statements	73%	14%	13%
FI:277	Describe information that can be obtained from annual reports	68%	18%	14%

Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
MK	**Marketing**			
MK:019	Describe connections between company actions and results (e.g., influencing consumer buying behavior, gaining market share, etc.)	68%	23%	9%
NF	**Information Management**			
NF:124	Demonstrate advanced database applications	45%	45%	9%
NF:225	Use accounting applications and systems	64%	27%	9%
OP	**Operations**			
OP:019	Describe crucial elements of a quality culture	59%	32%	9%
OP:024	Explain the nature of overhead/operating costs	82%	14%	4%
OP:025	Explain employee's role in expense control	73%	18%	9%
OP:026	Control use of supplies	77%	14%	9%
OP:192	Conduct breakeven analysis	77%	9%	14%
PD	**Professional Development**			
PD:250	Adhere to company protocols and policies	82%	14%	0%
PD:152	Discuss employment opportunities in the finance industry	36%	36%	27%
PD:036	Utilize resources that can contribute to professional development (e.g., trade journals/periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)	50%	50%	0%
PD:337	Utilize resources that can contribute to professional development (e.g., trade journals/periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)	32%	50%	18%

Management & Entrepreneurship Pathway Standards		Critical	Recommended	Not Needed
PD:338	Explain the roles and responsibilities of accounting professionals	32%	45%	23%
PD:168	Discuss professional designations for accountants (e.g., CPA, CMA, CIA, CFE, etc.)	27%	50%	23%
PD:339	Describe the services of professional organizations in accounting	27%	41%	27%
PD:158	Explain the nature of accounting standards	41%	41%	18%
PD:295	Discuss the roles and responsibilities of accounting-standards-setting bodies (i.e., SEC, FASB, IASB, GASB)	32%	45%	23%
PD:296	Compare U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS)	45%	37%	18%
FM	**Financial-Information Management**			
FM:002	Explain the nature and scope of the financial-information management function	45%	32%	23%
FM:011	Describe the use of technology in the financial-information management function	45%	32%	23%
FM:013	Demonstrate budgeting applications	68%	18%	14%
RM	**Risk Management**			
RM:041	Explain the role of ethics in risk management	59%	27%	14%
RM:042	Describe the use of technology in risk management	46%	27%	18%
RM:043	Discuss legal considerations affecting risk management	59%	27%	14%
RM:058	Discuss the nature of risk control (i.e., internal and external)	53%	43%	14%

Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways		Critical	Recommended	Not Needed
BL	**Business Law**			
BL:163	Comply with the spirit and intent of laws and regulations	82%	18%	0%
BL:003	Explain types of business ownership	18%	64%	18%
CO	**CO**			
CO:057	Analyze company resources to ascertain policies and procedures	59%	41%	0%
CO:084	Employ communication styles appropriate to target audience	77%	18%	0%
CO:061	Defend ideas objectively	50%	45%	5%
CO:114	Handle telephone calls in a businesslike manner	55%	36%	0%
CO:053	Participate in group discussions	50%	46%	0%
CO:085	Utilize note-taking strategies	45%	41%	9%
CO:086	Organize information	64%	27%	5%
CO:087	Select and use appropriate graphic aids	32%	50%	18%
CO:016	Explain the nature of effective written communications	41%	45%	0%
CO:088	Select and utilize appropriate formats for professional writing	59%	27%	5%
CO:089	Edit and revise written work consistent with professional standards	68%	27%	5%
CO:090	Write professional emails	77%	23%	0%
CO:133	Write business letters	27%	45%	18%
CO:039	Write informational messages	50%	46%	0%
CO:040	Write inquiries	36%	55%	9%
CO:205	Describe the impact of a person's social media brand on the achievement of organizational objectives	36%	46%	18%
CO:206	Distinguish between using social media for business and personal purposes	77%	18%	0%

Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways		Critical	Recommended	Not Needed
CO:014	Explain the nature of staff communication	64%	36%	0%
CO:092	Choose and use appropriate channel for workplace communication	77%	18%	5%
CO:063	Participate in a staff meeting	55%	45%	0%
CR	**Customer Relations**			
CR:003	Explain the nature of positive customer relations	59%	36%	0%
CR:004	Demonstrate a customer service mindset	59%	32%	0%
CR:029	Develop rapport with customers	59%	32%	0%
CR:005	Reinforce service orientation through communication	59%	32%	0%
CR:006	Respond to customer inquiries	59%	23%	9%
CR:019	Adapt communication to the cultural and social differences among clients	77%	14%	0%
CR:007	Interpret business policies to customers/clients	59%	32%	9%
CR:009	Handle difficult customers	91%	9%	0%
CR:010	Handle customer/client complaints	59%	32%	0%
CR:001	Identify company's brand promise	68%	27%	5%
CR:002	Determine ways of reinforcing the company's image through employee performance	50%	45%	5%
EC	**Economics**			
EC:002	Distinguish between economic goods and services	32%	55%	09%
EC:003	Explain the concept of economic resources	23%	64%	13%
EC:001	Describe the concepts of economics and economic activities	18%	64%	14%
EC:004	Determine economic utilities created by business activities	27%	46%	27%

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	Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways	Critical	Recommended	Not Needed
EC:005	Explain the principles of supply and demand	23%	59%	18%
EC:006	Describe the functions of prices in markets	23%	55%	22%
EC:070	Explain the role of business in society	32%	44%	18%
EC:071	Describe types of business activities	32%	46%	18%
EC:007	Explain the types of economic systems	9%	59%	32%
EC:009	Explain the concept of private enterprise	14%	50%	36%
EC:010	Identify factors affecting a business's profit	59%	36%	0%
EC:011	Determine factors affecting business risk	50%	42%	5%
EC:012	Explain the concept of competition	32%	50%	18%
EC:008	Determine the relationship between government and business	45%	41%	9%
EC:013	Explain the concept of productivity	55%	32%	9%
EI	**Emotional Intelligence**			
EI:018	Identify desirable personality traits important to business	50%	50%	0%
EI:128	Build trust in relationships	86%	14%	0%
EI:123	Describe the nature of ethics	41%	41%	14%
EI:124	Explain reasons for ethical dilemmas	46%	46%	5%
EI:125	Recognize and respond to ethical dilemmas	59%	32%	0%
EI:077	Manage commitments in a timely manner	77%	23%	0%
EI:092	Develop tolerance for ambiguity	46%	46%	5%
EI:103	Maintain the confidentiality of others	77%	18%	5%
EI:033	Exhibit cultural sensitivity	68%	23%	5%
EI:015	Use conflict-resolution skills	82%	14%	0%
EI:109	Explain the nature of office politics	23%	59%	14%

	Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways	Critical	Recommended	Not Needed
EI:095	Overcome problems and difficulties associated with office politics/turf wars	50%	41%	9%
EI:045	Participate as a team member	77%	23%	0%
EI:009	Explain the concept of leadership	50%	45%	5%
EI:131	Explain the nature of ethical leadership	41%	5%	4%
EI:132	Model ethical behavior	86%	9%	0%
EI:063	Determine personal vision	23%	59%	14%
EI:133	Inspire others	45%	32%	23%
EI:006	Demonstrate adaptability	86%	14%	0%
EI:027	Develop an achievement orientation	59%	32%	5%
EI:134	Challenge the status quo	50%	36%	5%
EI:005	Lead change	55%	41%	4%
EI:060	Enlist others in working toward a shared vision	55%	41%	4%
EI:041	Coach others	50%	41%	9%
EI:037	Foster positive working relationships	77%	23%	0%
EI:136	Consider conflicting viewpoints	77%	23%	0%
FI	**Financial Analysis**			
FI:058	Explain forms of financial exchange (cash, credit, debit, electronic funds transfer, etc.)	36%	45%	18%
FI:059	Identify types of currency (paper money, coins, banknotes, government bonds, treasury notes, etc.)	23%	50%	27%
FI:060	Describe functions of money (medium of exchange, unit of measure, store of value)	23%	45%	27%
FI:061	Describe sources of income and compensation	27%	64%	9%
FI:062	Explain the time value of money	36%	32%	32%
FI:002	Explain the purposes and importance of credit	27%	50%	18%

Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways		Critical	Recommended	Not Needed
FI:063	Explain legal responsibilities associated with consumer financial products and services	27%	45%	27%
FI:064	Explain the nature of financial needs (e.g., college, retirement, wills, insurance, etc.)	36%	45%	18%
FI:270	Explain the need to save and invest	32%	50%	18%
FI:065	Set financial goals	42%	36%	23%
FI:066	Develop personal budget	36%	36%	27%
FI:562	Determine personal net worth	9%	55%	36%
FI:067	Explain the nature of tax liabilities	23%	45%	32%
FI:068	Interpret a pay stub	50%	36%	9%
FI:560	Write checks	32%	36%	32%
FI:069	Maintain financial records	55%	27%	18%
FI:070	Balance a bank account	36%	45%	18%
FI:782	Calculate the cost of credit	36%	45%	18%
FI:071	Demonstrate the wise use of credit	45%	41%	9%
FI:072	Validate credit history	27%	41%	27%
FI:783	Make responsible financial decisions	59%	27%	14%
FI:073	Protect against identity theft	50%	36%	14%
FI:565	Pay bills	64%	23%	13%
FI:568	Control debt	68%	18%	14%
FI:074	Prepare personal income tax forms	9%	50%	36%
FI:569	Discuss the nature of retirement planning	23%	54%	23%
FI:572	Explain the nature of estate planning	14%	55%	32%
FI:075	Describe types of financial-services providers	27%	45%	27%
FI:076	Discuss considerations in selecting a financial-services provider	18%	41%	41%
FI:077	Explain types of investments	27%	55%	14%
FI:081	Describe the concept of insurance	45%	36%	14%

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	Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways	Critical	Recommended	Not Needed
FI:579	Describe the need for financial information	45%	36%	18%
FI:085	Explain the concept of accounting	36%	41%	23%
FI:606	Perform payroll duties (i.e., compile hours, write payroll checks, distribute checks)	32%	45%	23%
FI:354	Explain the role of finance in business	50%	45%	5%
MK	**Marketing**			
MK:116	Explain marketing and its importance in a global economy	23%	59%	18%
MK:002	Describe marketing functions and related activities	32%	50%	18%
NF	**Information Management**			
NF:110	Discuss the nature of information management	36%	55%	9%
NF:003	Identify ways that technology impacts business	64%	36%	0%
NF:088	Use an integrated business software application package	55%	41%	4%
NF:011	Demonstrate collaborative/groupware applications	36%	59%	5%
OP	**Operations**			
OP:189	Explain the nature of operations	41%	55%	4%
OP:004	Describe health and safety regulations in business	59%	32%	9%
OP:005	Report noncompliance with business health and safety regulations	59%	36%	5%
OP:006	Follow instructions for use of equipment, tools, and machinery	59%	32%	9%
OP:007	Follow safety precautions	73%	27%	0%
OP:008	Maintain a safe work environment	73%	23%	0%
OP:009	Explain procedures for handling accidents	64%	23%	13%

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	Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways	Critical	Recommended	Not Needed
OP:010	Handle and report emergency situations	73%	23%	4%
OP:152	Follow established security procedures/policies	68%	32%	0%
OP:153	Protect company information and intangibles	82%	14%	4%
OP:441	Explain information privacy, security, and confidentiality considerations in business	77%	23%	0%
OP:064	Maintain data security	77%	23%	0%
OP:519	Plan project	73%	18%	9%
OP:520	Monitor projects and take corrective actions	64%	23%	9%
OP:521	Evaluate project success	73%	18%	9%
OP:015	Explain the nature and scope of purchasing	27%	5%	18%
OP:017	Explain the concept of production	27%	55%	14%
OP:442	Comply with policies and procedures for use of property and equipment	59%	32%	9%
PD	Professional Development			
PD:002	Maintain appropriate personal appearance	73%	23%	0%
PD:009	Demonstrate systematic behavior	55%	36%	9%
PD:018	Set personal goals	32%	50%	18%
PD:251	Follow rules of conduct	91%	9%	0%
PD:252	Follow chain of command	45%	41%	5%
PD:126	Explain the need for innovation skills	59%	36%	0%
PD:017	Make decisions	77%	23%	0%
PD:077	Demonstrate problem-solving skills	86%	9%	0%
PD:013	Assess personal interests and skills needed for success in business	36%	64%	0%
PD:020	Analyze employer expectations in the business environment	59%	41%	0%

Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways		Critical	Recommended	Not Needed
PD:021	Explain the rights of workers	45%	50%	5%
PD:022	Identify sources of career information	27%	73%	0%
PD:023	Identify tentative occupational interest	32%	68%	0%
PD:026	Utilize job-search strategies	59%	36%	5%
PD:027	Complete a job application	77%	14%	9%
PD:028	Interview for a job	86%	14%	0%
PD:029	Write a follow-up letter after job interviews	45%	41%	14%
PD:030	Write a letter of application	41%	32%	23%
PD:031	Prepare a resume	77%	14%	5%
PD:032	Describe techniques for obtaining work experience (e.g., volunteer activities, internships)	45%	55%	0%
PD:033	Explain the need for ongoing education as a worker	41%	50%	5%
PD:034	Explain possible advancement patterns for jobs	36%	64%	0%

Administrative Support Pathway Standards Feedback

Gaps/Recommended Changes

- Navigating office dynamics
- Helping their supervisors navigate blind spots in the workplace
- Evolving careers and new job titles such as Chief of Staff, Chief People Officer, and HR Business Partner
- Handling direct mailings
- Handling directories for larger companies

Management Pathway Standards Feedback

Gaps/Recommended Changes

- Cross-functional collaboration and communication
- How to build off failures as an entrepreneur
- Project management skills
- Personal finance skills (e.g., paying rent, obtaining car insurance)
- Distilling long and complex ideas down to their most essential parts, such as in an executive summary
- How to present information effectively to different audiences (e.g., colleagues, executives, customers, etc.)
- Value propositions
- Marketing research
- Sources of financing for starting a company
- Discerning between real and invalid information

Feedback on Standards Shared by the Administrative Support & Management & Entrepreneurship Pathways

Gaps/Recommended Changes

- Some panelists noted standards leaned towards finance and accounting and could use a greater emphasis on other areas (e.g., sales, marketing, retention, operations, etc.).
- Networking
- Legal components
- Differentiating between small and large companies in entrepreneurship (matrices, responsibilities, mindset)
- Enterprise risk management skills (e.g., physical security, workers compensation claims)

Certifications of Value

According to futuring panel participants, professional certifications show commitment and initiative on the part of potential employees, which could help them in the hiring process. Possessing a certification of value could result in higher compensation. Some employers will pay for employees to earn certifications of value. Professional certifications that participants recommend or that their companies support for employees include:

- Change Management Certification (CMS)
- Project Management Professional (PMP)
- Microsoft Office Specialist (MOS)
- Behavior Analyst Certification (BAC)

Emerging Occupations in Administrative Support

- Administrative assistant
- Customer service specialist
- Data entry specialist
- Executive assistant
- Front desk coordinator
- Project assistant/coordinator

Emerging Occupations in Management & Entrepreneurship

- Facilities manager
- Business and management analysts
- Human resource managers
- Marketing managers
- Public Relations Manager

Observations and Recommendations

Based on feedback from futuring panelists, MBA Research and Curriculum Center recommends the following:

1. Provide teachers with tools and resources, including continuing education, to help them understand the vast implications and applications of **artificial intelligence** (AI) in the workplace so that they can help students do the same. For teachers interested in developing a knowledge of AI, we recommend:

   - Articles such as IBM's What Is Artificial Intelligence (AI)? and McKinsey & Company's What Is AI (Artificial Intelligence)?. Both provide detailed précis on the growth and application of AI.
   - Lund University's AI, Business, and the Future of Work, available for free via Coursera. The course includes an overview of AI, the role of AI in the workplace, and risks associated with AI.
   - IBM's AI Foundations for Everyone Specialization, also available from Coursera. This certification has a small cost attached but would be beneficial to any teacher wanting to grow their expertise about AI and prompt engineering. The certification, which is designed for individuals with little to no background in AI, includes four courses:
     - Introduction to Artificial Intelligence (AI)
     - Generative AI: Introduction and Applications
     - Generative AI: Prompt Engineering Basics
     - Building AI Powered Chatbots Without Programming

2. Provide resources to teachers to help them better understand the role of **activism in today's workplace**, as well as how activism and social issues impact where Generation Z works. Articles such as the Gen Z Activism Survey and The Power of Career Activism: Why Some Employers Are Winning and Others Lose detail the top concerns of Gen Z and the importance they place on working for companies that match their social or political beliefs.

   While activism is generally applauded among today's young people, students must learn how to navigate and balance their growing desire for such causes as social justice or environmental protection with the responsibilities and expectations of their future employers. The Forbes article All Hands Memo: Why Activism at Work Could Get You Fired highlights instances in which speaking out at work is permissible, along with situations when it could get you fired. Likewise, the CNBC resource For Protest-Minded Workers, Employment Law and Free Speech Are Not Clearly on Your Side provides tips on how to be an activist without running afoul of your employer.

3. Provide professional development and resources for teachers focused on the development of students' **interpersonal skills**. Futuring panelists shared that teamwork, collaboration, and communication skills are essential for success in the workplace, yet they are skills that younger employees often lack. While still in school, students should learn how to resolve conflict, shoulder responsibility, and effectively communicate verbally and in writing, among other "soft" skills. These skills should be part of the fabric of the classroom, work-based learning, and student organizations, since future success for students in the workplace will hinge on these skills.

To build students' skills in these areas, we recommend utilizing MBA Research's free Ethical Leadership course guide and associated LAPs, which can be used as individual, standalone lessons or as a dedicated course of study.

4. Offer resources and professional development to help educators provide students opportunities to **develop a growth mindset** and learn from their failures. Futuring panel participants noted that many younger employees seem to prefer detailed, specific instructions for completing their assigned responsibilities correctly from the start, rather than accepting the risk that comes with making some decisions with little to no guidance or supervision. This overly cautious attitude, along with a fear of failure, are often the result of years in an educational setting where doing something right the first time is praised and repeated unsuccessful attempts are often looked down upon. Resources such as High School Entrepreneurship - Teaching How to Fail Leads to Success and Why Failure is Good for Learning and for Success (both written by educators) provide tips and ideas for teachers on how to help students become comfortable in taking risks and making mistakes.

5. Business administration programs in Kentucky should provide opportunities for students to receive training in **Microsoft Office Suite** applications, especially Excel. Many futuring panel participants indicated that they generally favor Excel versus other spreadsheet applications such as Google Sheets for data visualization and analysis, tracking sales, checking inventory, and other essential tasks. For more on how Microsoft Excel has emerged as a "silent hero" in the business world and in-demand Excel skills, see the articles The Importance of Excel in Business (+ Examples) and Features of Excel to Use in Data Analysis.

   In addition to encouraging schools to provide students with opportunities to learn and to use Microsoft Office and other software commonly found in the business world, futuring panelists proposed not only training students on the use of the technology, but also teaching them proper **etiquette in the use of the applications**. In other words, not just how to use technology, but how to be mindful of others when using it as well. Examples include: 1) taking scheduling conflicts into consideration when selecting a time, day, and/or location for a meeting involving multiple individuals, and 2) cleaning and organizing data so that coworkers can easily access and use the data at a later date.

6. Provide professional development for teachers on **data mining and analysis**. Doing so will increase educators' comfort level when helping students develop skills in these areas. Teachers may also need training on software applications that can be used to mine and synthesize data. Both teachers' and students' data mining and analysis skills should be developed in the context of the curriculum being taught, rather than as separate computer applications-type training.

   Resources that educators could use to expand their own knowledge of data analytics:

   - Online data analytics courses on platforms such as Coursera, edX, and Udemy are great options for teachers wanting to grow their knowledge and skills in the discipline. For example, Coursera offers Introduction to Data Analytics, which is a beginner-level course that teachers can audit for free to learn the key steps of data analysis, different types of data structures, and data-analysis tools.

- YouTube tutorials on a variety of data science and analysis topics. For instance, Alex Freberg ("Alex the Analyst") offers a free Data Analyst Bootcamp containing 74 separate videos on topics such as SQL basics, Excel, Tableau, and more.

To help students begin to understand the basics of data analysis, we also recommend the following MBA Research and Curriculum Center Learning Activity Packages (LAPs):

- LAP-IM-012, Data Do It (Need for Marketing Data)
- LAP-IM-184, Data Diving (Identifying Marketing Data)
- LAP-IM-010, Seek and Find (Marketing Research)
- LAP-IM-281, What's the Source? (Obtaining Marketing-Research Data)

While these LAPs have a focus on marketing, they are applicable for students studying business in any area as a way to gain an understanding of basic concepts related to data analysis.

7. Sponsor activities at the state level that provide teachers with opportunities to discuss **regulatory requirements for businesses** with their state representatives. Teachers should be encouraged to develop relationships with their local legislators as one way to better understand the reasoning behind regulatory requirements and the process by which those requirements are vetted, developed, and enacted into law. Teachers should also be encouraged to discuss regulations with their business partners so that they get a wide range of perspectives.

8. Offer teachers information and resources to help them better understand the implications of and employee expectations for **remote work**. This blog post by Andrea Rajic does a great job of digging into what remote work can look like, along with the pros and cons of remote work. The post 10 Essential Skills for Successful Remote Work identifies skills such as self-discipline and effective communication and collaboration that are must-haves for remote workers. Lastly, a recent article from *U.S. News & World Report* highlights industries with the most remote or hybrid workers, including financial and professional services companies, as well as ways in which remote work has affected the economy.

9. Offer educators formal training in **project management**. A project management approach in the classroom can help prepare students for the workplace and help foster the teamwork and communication skills needed for success.

Educators can visit the MBA Research Project Management page on our website to access resources available to build project management skills into their curricula. Free LAPs available on MBA Research's website to help teachers bring project management into the classroom include:

- LAP-OP-001, Chart Your Course (Developing a Project Plan)
- LAP-OP-003, Get What You Need (Identifying Project Resources)
- LAP-OP-158, Projected To Win (Nature of Project Management)
- LAP-OP-519, Plan On It! (Planning Projects)
- LAP-OP-520, Check Your (Project) Pulse (Monitoring Projects and Taking Corrective Actions)
- LAP-OP-521, Making the Grade (Evaluating Project Success)

Additionally, we recommend strengthening and expanding Kentucky's High School of Business program participation as it uses a project-based delivery model. Nine college credits are earned on average by students who complete *High School of Business.* This means students enter college ahead of their peers in terms of knowledge, credits earned, and experience working on teams to solve business problems.

10. Kentucky futuring panel participants placed a strong emphasis on the need **for ethics in the workplace**. MBA Research and the [Daniels Fund](#) have collaborated to provide a wealth of free middle school, high school, and community college resources ranging from course guide to lesson modules, videos, and more to help teachers integrate ethics into their classrooms. Access more information about the resources [here](#).

11. Support teachers with tools and opportunities to develop long-term **partnerships with the business community** so that they and their students can learn from real-life business situations and scenarios. For instance, in a trusted partnership with a business, students and teachers could:

    - Explore the use of technology and data analysis
    - Get insights on the use of soft skills and collaborative techniques in the workplace
    - Examine ethical dilemmas and get real feedback on potential solutions
    - Develop insight into how businesses respond to governmental regulations
    - Gain a realistic understanding of expectations in the workplace

    Another aspect of these partnerships between educators and businesses is the involvement of the local business community in classroom activities, as well as student involvement in real-world learning experiences. Activities such as guest speakers, student presentations to and judging by business partners, mentorships, worksite tours, and internships will help to provide students a more realistic understanding of business and its expectations, as well as giving them opportunities to develop portfolios that show their involvement in authentic business situations. It also gives the business community a realistic understanding of the business-related programs, students, and student capabilities.

    Many of the futuring panelists were there because of their dedication to education and would likely be willing to engage further with teachers and students in their districts. MBA Research can help facilitate connections between teachers and panel members at your request.

12. Provide opportunities for educators to access and utilize **workforce data** that can aid them as they articulate the importance of business administration programs and advocate for stronger ones. This is especially important as schools develop their local needs assessments in response to Perkins V requirements. O*NET OnLine is a great resource for workforce data for [Business Management & Administration](#) occupations, including those in management and administrative support. Educators can also access Projections Central or the U.S. Bureau of Labor websites to analyze workforce data in Kentucky and across the U.S. See the [Career Data](#) page on MBA Research's website for more national- and state-level resources.

13. **Kentucky Department of Education staff** did a wonderful job of connecting with business executives at the futuring panel and learning as much as possible from them during the time we spent together. MBA Research encourages you to leverage the connections made with the attendees and engage them with students and teachers to maximize learning experiences designed to prepare students for careers in business administration.

Thank You and Recognition of Contributors

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We are always grateful to meet with and to hear directly from business and industry about what's going on in the workplace. Thank you for your time and commitment to Kentucky workforce development and business administration education.

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