Preparing K-12 Students for Sustainability Education

### **Discussion Leaders**

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## Background

- KACEE is a non-profit association that promotes and provides effective, nonbiased, science-based conservation and environmental education in Kansas.
- The KACEE education committee is assessing the needs of secondary school educators preparing students for sustainability and green jobs programs

## 2011 EE Conference Dialogue

- EE not on the same playing field
  - Does not receive same level of support as "hard sciences" in secondary schools
  - Lack of standards for sustainability
- Need to define career pathways
- Need for focused professional development



Year	Number of New Programs
2010	146
2009	113
2008	66
2007	27

Source: AASHE, 2010 Campus Sustainability Review

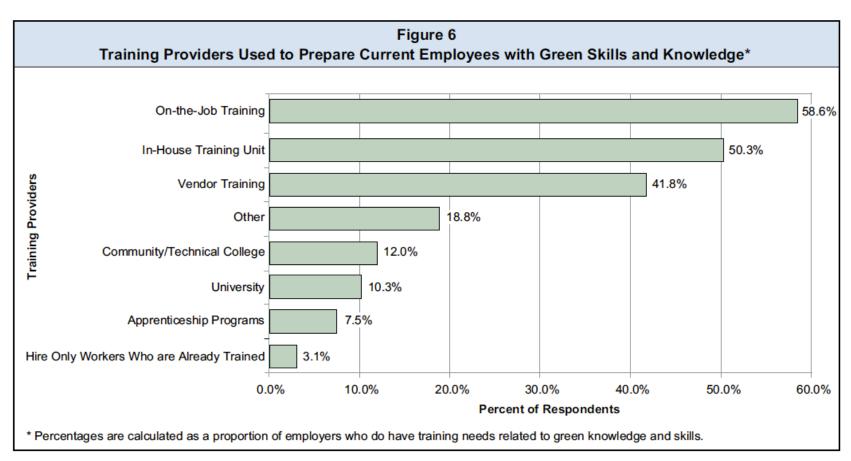
### **Poll Question:**

Does your institution have a green jobs or other sustainability-focused academic program (or plans to develop one)?

## Discussion

- What types of green jobs or sustainability programs are offered or are being developed at your institution?
- What is the demand for these types of programs at your institution?
- What types of programs are students looking for?

# Green Jobs Training



Source: Kansas Department of Labor, 2009 Kansas Green Jobs Report



# Green Jobs Training

### Agriculture, Food, and Natural Resources Arts, A/V Technology, Information Technology Animal Systems and Communications Information Support and Services Agribusiness Systems Web and Digital Communications Audio/Video Techniques Biotechnology in Agriculture Journalism and Broadcasting Network Systems Environmental Service Systems Programming and Performing Arts Food Products and Processing Systems Software Development Printing Techniques Natural Resources Systems Telecommunications Techniques Plant Systems Visual Arts Power, Structural, and Technical Systems Transportation, Distribution, and Logistics Facility and Mobile Industrial, Manufacturing, Industrial, Manufacturing Systems and Engineering Systems Equipment Maintenance Architecture and Construction • Health, Safety, and **Business Management** Hospitality and Tourism **Foundation Knowledge** and Administration Construction Environmental Management Lodging and Skills Administrative Services Recreation, Amusements. Design and Pre-construction Logistics Planning and Maintenance and Operations Management Services Business Information and Attractions Business, Marketing, Business, Management and Management Sales and Services Management Restaurants and Food and Academic and Technical Skills Human Resources Manufacturing Transportation Operations Beverage Services Production Transportation/Systems Management Travel and Tourism · Employability Information General Management Manufacturing Production Infrastructure Planning. Ethics Technology Systems Operations Management Marketing Process Development Management, and Regulation Systems Application Maintenance, Installation. Warehousing and Distribution Merchandising Teamwork Legal Marketing Management Center Operations and Repair Finance Career Responsibilities Marketing Communications Banking Services Quality Assurance Development Communication Marketing Research Logistics and Inventory Business Finance Science, Technology, Problem Solving · Safety, Health, Securities and Investments Professional Selling Control Engineering, and Critical Thinking and Environment Health, Safety, and Mathematics Insurance **Environmental Assurance** Engineering and Technology Accounting Science and Math (Investigative, Informational, and Educational) **Education and Training** Administration and Administrative Support Professional Support Services **Government and Public** Teaching/Training Administration Biotechnology Research and Development Revenue and Taxation **Human Services** Law. Public Diagnostic Services Foreign Service Consumer Services Safety, and Security Supportive Services Governance Counseling and Mental Correction Services Health Informatics • Emergency and Fire National Security Health Services Therapeutic Services Farly Childhood Developm

### Poll Question

What core areas do your green jobs programs focus on?

- A) Green Building
- B) Energy Efficiency
- c) Renewable Energy
- D) Resource Conservation/Management
- E) Sustainable Agriculture
- F) Pollution Prevention
- G) Sustainability Leadership/Management
- н) Transportation
- Other

## Discussion

- What skill sets are needed for students entering green job programs?
- What career guidance is available for these students?
- What pathways exist for students to continue on to 4-year programs?
- What partnerships exist to support such programs?



# Skills for Incoming Students

### Profiles of the...

- 1. Creativity and Innovation
- 2. Critical Thinking and Problem Solving
- 3. Communicating and Collaborating
- Information, Communication, Technology (ICT), and Media Literacy
- 5. Flexibility and Adaptability
- Initiative and Self-Direction
- 7. Social and Cross-Cultural Skills
- 8. Productivity and Accountability
  - Leadership and Responsibility
    - Employment and Career Development

### Five **Unifying Themes**

- Relationships

218x Century Learning Emily

## Discussion

- What is the basic foundational knowledge and skill sets expected from students coming into your programs?
- How would you describe the learning environment compared to other programs?
- How do they compare to 21<sup>st</sup> Century Learning Skills/Learning Environment

# Educational Partnerships

- What types of outreach are you doing to secondary schools?
- What opportunities do you see for additional outreach/partnership with secondary schools?
- What do you want HS teachers to know about your programs and what do you want to know from them?

# Statewide Partnerships

 Is there a role for educational organizations to help facilitate partnerships at a regional level

### Examples may include

- Providing focused professional development for educators
- Facilitating dialogue between high school and higher ed educators and administrators
- Providing opportunities to exchange ideas through conferences

# Questions?