

Developing a Statewide Model Program of Study: Five States Share Insights

POS 10 Component Framework:

- Legislation and Policies
- Partnerships
- Professional Development
- Accountability and Evaluation Systems
- College and Career Readiness Standards
- Course Sequences
- Credit Transfer Agreements
- Guidance Counseling and Academic Advisement
- Teaching and Learning Strategies
- Technical Skills Assessments

“Make sure you have a strong vision when you start. Determine your ultimate goal, then work backwards to meet it. Recognize that your methods to reach your goal may alter your path, but stay true to where you are going.”
- Georgia

This brief highlights the efforts of five states to build systems and policies to support the adoption of new programs of study (POS) and to transform existing career technical education (CTE) programs into POS.

With support from the National Research Center for Career Technical Education, the Academy for Education Development, MPR Associates and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) established a Technical Assistance Academy (TA Academy) that focused its second year on supporting states in the creation and implementation of POS.

Five states were selected to receive this assistance – Georgia, Illinois, New Jersey, Ohio, and Oregon. The goal was to build systems that supported statewide adoption of POS. The POS developed under this grant were to be tied to “green jobs.” Green was chosen for its increasing impact on many sectors and for its expected growth in industries. For more details on the specifics of this grant project, see the [presentation](#)ⁱ introducing it from the 2010 National Career Clusters Institute.

Programs of study were introduced in the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins) as a tool to transform the education pipeline in order to meet the demands of the global economy. As states considered how to implement this provision, there was great flexibility in how to interpret the statute. Perkins defined a POS as a structured sequence of academic and CTE courses aligned from secondary to postsecondary that leads a student to earning a postsecondary-level credentialⁱⁱ. This definition has given license to great variance in interpretation of what and how to implement POS. In an effort to provide states assistance, the Office of Vocational and Adult Education (OVAE) created a framework that identifies the [10 essential components of a POS](#)ⁱⁱⁱ. An early version of the framework was used to structure a self-assessment each state was required to use and the revised framework served as a guide once it was released.

What follows is a brief synthesis of each state’s process during the initial stages of development. What were the initial challenges they faced and how did they respond? What worked and what do they wish they could have done differently? And particularly, what is the most effective way to bring together individuals from secondary and postsecondary education at the state and local level and business and industry to form a team? NASDCTEc hopes this information can provide insight to the questions that need to be answered in order to pursue POS efforts.

The States' Stories

Georgia

Illinois

New Jersey

Ohio

Oregon

Although each state has a unique story, they began with the same framework: they chose a focus, assembled a team and set a goal. From their collective stories, we have garnered some key learnings.

- **Focus:** The focus of the POS was influenced greatly by research done on the economy of the state, public and industry interest and expected job growth, particularly in green areas.
- **Team:** Each state was required to build a team of state secondary and postsecondary CTE representatives, secondary and postsecondary educators and administrators, and green industry representatives. The sizes of the teams varied as states worked to establish the best combination. Overall, the shared perspective indicated that more team members were needed for added buy-in and resources, but it was essential to have a dedicated core group to keep momentum and work going.
- **Facilitators:** Each team worked with a facilitator via phone conferencing and in person. Although the level of involvement by facilitators varied, several states highlighted the role they played in helping keep the team moving toward a specific goal and providing assistance in linking them to the appropriate content experts.
- **Goal:** The goal was to create a statewide model built from standards that consider labor demand data and projections, link to existing college program and other workforce projects that leverages existing infrastructure. A POS using this model would foster rigorous CTE and academic coursework, structure a seamless transition to postsecondary and the workplace, eliminate duplication of coursework and embed accountability through assessment. A POS that fulfills these goals could serve as a detailed guide to creating true opportunities for students.
- **Key Learnings:** In each state summary you will find a section titled, *What makes an effective team?* This is because year one of this project revealed that a team-led effort was among the key learnings of what contributed to state success. The components of the team included a combination of leadership, secondary and postsecondary alignment, state and local representation, bringing in industry and developing a shared language and compatible process. Each state shared their nuanced perspective on what the driving focus should be for each of these factors.

Georgia

Energy Program of Study

CURRENT ACHIEVEMENTS:

Georgia's team, approximately 40 members, has:

- Developed a green-focused POS in the Energy Systems Pathway.
- Aligned the POS is aligned between high schools to two technical colleges and one four-year college.
- See example one^{iv} and two^v of the plans of study.

Challenges

The initial challenges Georgia faced involved breaking down silos.

- The team struggled with communication, coordination and collaboration. Although they had diverse representation, they were not immediately able to work together as a team with a shared vision and goal. Differences, especially between the secondary and postsecondary community, held them in separate silos.
- The lack of synergy made it difficult to create a seamless POS template. In the early stages, the team had two separate POS templates, one at the secondary level and another at the postsecondary level.

What worked

Although educational paradigms have challenged Georgia along the way, they broke through them by focusing, seeking guidance, and following a process.

- To improve communication, coordination and collaboration, Georgia's team lead was dedicated to a process that has allowed their partnerships to grow: communicate, plan, meet and listen.
 - They set their vision.
 - They focused on work already done by national groups, like Career Clusters.
 - They stayed true to what was needed.
 - They listened to what industry was telling them.
- Georgia's team lead communicates with constituents on a weekly basis and created a Google group where anything can be posted (updates, messages, documents, etc.). Unlike e-mail, this does not get lost in anyone's inbox. It is easy to post to and has pulled state, local, secondary, postsecondary and industry representatives together.
- Georgia recognized its strongest business partner, Georgia Power, the largest subsidiary of one of the nation's largest construction companies, which helped narrow the focus to one model POS in energy. The partnership was timely given the anticipated 3,500 industrial construction worker and 800 technician jobs expected for a new nuclear power plant in Georgia.
- To begin the process of outlining the necessary knowledge and skills to be offered in the POS, they looked to the [Energy Competency Model](#) for guidance.
- Other remaining challenges, like dual enrollment and college access, are being addressed through committee work headlined by a Board of Regents representative and significant strides have been made as Georgia has passed legislation opening dual enrollment opportunities for juniors and seniors (Move On When Ready).

Georgia

Energy Program of Study

“The POS cannot be only faculty- and industry-driven. Decision makers must be at the table, especially around curriculum.”

What makes an effective team?

Leadership: designate secondary and postsecondary co-chairs.

Require joint leadership so secondary and postsecondary (both two- and four-year) have equal voices and responsibility.

State and local representation: focus and customize to state needs.

A focus on one POS could help form the team. Some states need more local representatives than others. Recognize this, but be mindful that having more team members is not necessarily better.

Bringing in industry: ask for help to find where the POS can go.

Industry will help the POS lead to existing opportunities and determine where the multiple points of entry and exit exist.

Developing shared language and compatible process: use OVAE guidance.

Use OVAE’s [10-component framework](#)^{vi} document as a starting platform. Sit down with secondary and postsecondary representatives and ask where both stand with each component. Where is there consensus and where are there differences? Why? Make sure you define your terms as a group.

Georgia’s next steps

The next step is implementation of the Energy POS. Similar work is being done now to develop models for construction and will also lead to models for transportation and agriculture. See Georgia’s [presentation](#)^{vii} from the 2010 Career Clusters Institute for more specifics about their project.

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Illinois

Architecture & Construction • Manufacturing Programs of Study

CURRENT ACHIEVEMENTS:

Illinois' team has:

- **Developed a POS Expectation Tool to help identify a POS that includes OVAE's 10-component framework and meets state standards.**
- **Partnered the secondary local consortium with the community colleges to implement the model POS**
- **Begun curriculum mapping with the engagement of the construction industry and an accredited school of architecture**

Challenges

Illinois' initial challenges began with tackling the concept of how a POS is understood, communicated and then implemented.

- It was a challenge to constantly rethink the POS and not let it fall into the trap of a terminal definition: this is what a POS is and when you have one you are done. Instead, it had to be based on and structured around continuous improvement.
- Recognizing this challenge, the Illinois team faced the following questions: what actually is a POS? How do you know when you have one? How do we implement a POS, beyond offering dual credit, for example? Working through these questions helped them create something truly measurable.

What worked

Illinois took on the challenges and achieved results. Several factors contributed to rethinking the POS and developing a comprehensive strategy:

- The POS is grounded in a theoretical foundation with guiding principles, like leadership, access to equity and opportunity.
- In order to identify areas of improvement, Illinois partnered with University of Illinois to develop a **self-assessment**^{viii}. In addition, the University of Illinois had worked on a POS framework for the previous two years, so they were able to crosswalk their framework with OVAE's framework, therefore simultaneously building off of previously done work and fostering partnerships.
- The National Career Clusters served as a guiding tool to perpetuate consistent language.
- Illinois incorporated the Continuous Improvement (CI) Models, **Pathways to Results**^{ix}.
- The business team members played an integral role in determining essential components of the POS.
- The **21st Century Skills** served as a foundation (skills like innovation, creative thinking, group work, etc.).
- **Chicago Architecture Foundation (CAF)**, an organization that specializes in bringing industry and education together, became a strong partner. CAF served as the glue; their position and perspective allowed them to speak the language of industry and education and understand diverse approaches. This allowed them to nimbly mediate and balance between groups. CAF, an independent organization equally invested in the success of both education and industry, proved to be essential.

And finally, this project was brought to the awareness of the governor's office, and captured the interest of this key stakeholder. This contact could prove vital in the further development of the POS, particularly as they move forward to implementation.

Illinois

Architecture & Construction • Manufacturing Programs of Study

What makes an effective team?

Leadership: *shared secondary and postsecondary responsibility.*

Perkins requires seamless programs from secondary to postsecondary. In order to fulfill the requirements of this legislation, collaboration is a must. Placing leadership on a pair rather than one over the other should foster the necessary collaboration.

State and local representation: *focus on the local.*

All POS are implemented at the local level and thus require local support from both secondary and postsecondary entities. State level and institutional/local levels must form a balanced part of the same team. Moving forward without strong local participation wastes time, energy and resources.

Bringing in industry: *make it early and specific.*

Focus on select industry representatives and engage them early. Make sure to answer questions before bringing the whole group together. Provide a tutorial that frames the project and clarifies what a POS is and what specifically is needed from industry partners.

Developing shared language and compatible process: *meet, meet, meet.*

Regular conference calls help the team establish a working relationship. These calls do not have to include an entire team; they could focus according to area (manufacturing or architecture, for example).

Illinois' next steps

Illinois is continuing work on curriculum development and gathering buy-in from locals in order to move the implementation process forward.

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New Jersey

Architecture & Construction Program of Study • Sustainable Design, Construction and Energy Pathways

CURRENT ACHIEVEMENTS:

New Jersey's team has:

- Established strong industry partnerships for each of the three pathways
- Begun building an advisory group for each pathway
- Begun developing the foundational courses for 9th and 10th grades that are set for initiation in the fall of 2011

The New Jersey team was unique because the New Jersey Council of County Vocational-Technical Schools had already formed a statewide committee of education experts, workforce leaders, energy companies and policymakers to help provide guidance on workforce needs in the green economy. The Green Collars Advisory Committee (for more information click [here](#)^x) is dedicated to:

- Developing a short-term training module that can help train much-needed energy auditors and weatherization experts.
- Exploring ways to infuse the latest green skills into each and every career program offered at county vocational-technical schools.
- Creating curriculum to help re-train existing workers in the construction trades to update their skills to incorporate green practices.
- Developing a curriculum that could be used statewide for a four-year POS in the field of energy and the environment.

The Green Collar Advisory Committee recognized that the TA Academy could enhance the states' focus and resources for their work. The committee formed an offshoot team of about 30 individuals including state officials and representatives from secondary CTE, community colleges and industry.

Challenges

The initial stage of developing a model POS presented New Jersey with several challenges:

- How could they determine areas in industry that have a specific need and would offer future opportunities to students? It was difficult to make projections and identify true labor demands. To address this challenge, they used the [New Jersey Going Green](#)^x report to guide decision-making. This report indicated that almost all of the current demand for green jobs in 2009 was in the energy efficiency sector, not in the renewable energy sector. This informed their work and helped determine a focus for the POS.
- The team began their process aiming to address too many areas. Although they eventually narrowed their focus, the team lead believes that their initial approach served a good purpose: it broadened their audience, laying the groundwork for future POS endeavors. Working through these questions helped them create something truly measurable.
- It was difficult to find appropriate language to use that could be understood by both the education community and business and industry.

New Jersey

Architecture & Construction Program of Study • Sustainable Design, Construction and Energy Pathways

“The core team must have at least one key leader who has this project as a major part of their job in order to keep it moving forward.”

What worked

The team found the following actions to be the principle factors that maintained the momentum of the process:

- New Jersey’s work was conducted with a team approach. Instead of one person leading, a small team formed that could bounce ideas around without always referring to the complete larger team. This layered team approach facilitated continuous progress and fostered creativity between colleagues.
- In order to conceptualize the POS, they took on a backwards-mapping strategy. The team began by discussing where they were going: occupations. They took one step back to determine requisites of an occupation (degrees, certifications, credentials, etc.) and continued to walk backwards to the beginning. They used the **tiered competency model**^{xii} to help frame initial discussions. However, it is important to note that the model is not linear; the tiers do not match to grades. It can help in thinking and developing the theoretical, but it should not restrict the process.
- All work has been well documented. Physical examples of the materials and products they have developed are essential, as the team needs to be able to share examples of their work to continue moving the project forward and to generate additional buy-in.
- Following the action plan given by the TA Academy helped the team stay focused on the essential components of the POS and a process to follow that made room for the reflection necessary when developing ground-breaking work.

What makes an effective team?

Leadership: *stick it out.*

You will get lost in the beginning. Re-thinking through a POS will most likely require this, but stay committed to your goals and process. With an appropriate team of secondary, postsecondary at both state and local levels and business and industry, specify a timeline and process with charts and assignments. Weaving together these different groups will require the finesse of process.

Bringing in industry: *make sure multiple facets participate.*

People from industry should not only be representatives. Work will be more comprehensive if different facets of industry, like unions or apprenticeships, have their place at the table.

New Jersey

Architecture & Construction Program of Study • Sustainable Design, Construction and Energy Pathways

What makes an effective team?

Developing shared language and compatible process: *look to national context with a facilitator's lens.*

Confirm how POS is defined according to Perkins. Make sure your language addresses this and clarifies for all what it means. This can overall guide you. Seek a facilitator with national context to help you through the process. If this is not possible, recognize the significance of asking the questions facilitators bring, like "Tell me what articulation looks like" or "What is the program of study going to address?" These questions will push your process farther and faster.

New Jersey's next steps

As New Jersey embarks on the implementation stage, they have outlined several next steps:

- The team will engage additional school, college and industry representatives in identifying sequences of courses and industry credentials that should be developed for industry-specific frameworks.
- Interested schools and colleges will collaborate during 2010-2011 to plan for implementation of a POS in September 2011 for grades 9-10 and then beyond.
- They will continue establishing definitive agreements of articulated credit with colleges. Work is continuing as well to address the lack of statewide articulation.
- They will continue seeking four-year college participation.

For more details on New Jersey's project see their [presentation^{xiii}](#) at the 2010 Career Clusters Institute.

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Ohio

Energy and Alternative Fuels • Sustainable Systems • Bioproduct Development

CURRENT ACHIEVEMENTS:

Ohio's team, originally comprised of 30 members, has grown in order to generate more buy-in and achieved the following:

- **Established status of secondary and post-secondary programs.**
- **Defined industry sectors, identified industry trends and issues, described emerging technology.**
- **Identified current and emerging careers in each sector.**
- **Identified content standards related to each green sector.**
- **Began aligning content for state POS model with associate degree programs.**

Challenges

During the initial stage of this project, the major challenges were around establishing the appropriate strategy to work together so that secondary, postsecondary, business and industry could bring their strengths to the table and participate toward a shared goal.

- The overarching challenge was bringing people together to work as a team. Working through differing expectations and backgrounds was a difficult but necessary process in order to have everyone on the same page.
- In particular, it was a challenge to build a bridge between secondary and postsecondary. While work with POS had been done previously in Ohio at the secondary level, development at the postsecondary level was lacking. Ohio's team needed to take a step back and determine how to build a model so they could reduce the risk of conflict and duplication of effort.

What worked

Overall, what allowed Ohio's project to jumpstart was the varying stakeholders' consistent enthusiasm to participate. That positive energy impacted other areas of their work.

- The goal of meeting workforce needs allowed different people to unite. The "green" focus helped crystallize expectations and frame discussions. The team began by exploring the meaning of "green" from various perspectives: What does it mean in an educational sense? What does it mean to employment? How does this impact existing programs?
- They narrowed the focus to areas where school curriculum could serve as a foundation on which the POS work could stand, rather than start completely from scratch.
- The participation from both a comprehensive and area high school was critical to staging a model POS because of the state's use of both types of schools. Hence, the POS would serve as a relevant model for regions throughout Ohio.
- Building on the valuable work done through Tech Prep, the Ohio team has been able to align content to existing standards, a process validated with their partners.

Ohio

**Energy and
Alternative Fuels**
•
Sustainable Systems
•
**Bioproduct
Development**

“Industry must be at the table, but when and why? Involving industry early in full curriculum development may alienate them.”

What makes an effective team?

Leadership: *the State CTE Director must be on the team.*

Senior leadership from appropriate agencies that oversee secondary and postsecondary help with visibility and can provide the initial support needed to give this work the credibility it deserves.

State and local representation: *strike a balance.*

Both voices are essential, but a balance is often achieved by including more local-level involvement. Local representation needs to reflect the culture of the state, whether it is comprehensive high schools, area technical schools, rural or urban, etc.

Bringing in industry: *clearly define their role to determine strategic participation.*

They should be brought in as “ad-hoc” to review what has been done when their validation and voice is needed. There is no fixed formula for when this will be; it will depend on the industry and what needs exist within the project. However, industry can participate best when presented with specific questions over a specific issue, like what the latest technologies required in the field are, and what skills are required to use them, for example.

Developing shared language and compatible process: *don’t skimp on time together.*

Working together in person is a necessity for establishing a group norm; this, in essence, allows you to work together as a team.

Ohio’s next steps

Ohio is now beginning the implementation stage of the POS, aiming for the following in 2013:

- All CTE programs will have an approved CTE POS.
- All CTE programs will be considered having met Tech Prep standards.

For more details on Ohio’s partnerships and the specifics of their model POS, see their [presentation](#)^{xiv} from the 2010 National Career Clusters Institute.

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Oregon

Sustainable Building Program of Study

CURRENT ACHIEVEMENTS:

Oregon's team of approximately 10 people has developed a standards-based POS in sustainable construction that allows some flexibility in delivery. Included in these standards are:

- **Technical standards for design/building careers**
- **Relevant academic standards (building science)**
- **Interwoven standards related to green**

Challenges

During the initial stages of development, Oregon's team faced several major challenges, in particular:

- Developing industry connections that reach beyond community colleges to four year colleges and the K-12 community.
- Making sure the POS would meet a genuine need and offer something new. The challenge was looking at existing courses and asking the difficult questions: are these programs still meeting a need, or could one be let go?
- Recognizing and working with the fact that developing a POS takes more than one year.

What worked

Several contributing factors allowed Oregon's team to overcome challenges and meet their goals.

- Instead of starting from scratch, Oregon assembled a team based on several existing partnerships, and chose to enrich existing programs. For instance, rather than seeking all new partners to join the POS project, Oregon approached industry that already established strong relationships with community colleges. Similarly with existing programs, there was a foundation to build upon and rework, which especially helped for working within a limited timeframe.
- Although these Oregon stakeholders worked from a foundation of existing systems and relationships, the goal for a statewide model did require new guidance. To help generate the POS model that Oregon desired, the team developed an action plan focused around the **10 components of a POS** developed by OVAE. This action plan allowed the team to focus on the ultimate outcome of a new POS rather than a reworking of what it had been.
- Because Oregon chose to work with existing partnerships and programs, they were able to save time and focus their work on clarifying their goal: they were not creating a POS to be adopted as is; they were creating a statewide model that should continue to develop. Constant reminders of this goal and focus on it are what ultimately allowed a statewide model to begin to shape.

What makes an effective team?

Leadership: *find visionaries with accountability.*

New thinking is required and the job has to get done; find a visionary individual and someone with accountability, someone whose job it is to get this project done. Designate co-leaders.

Oregon

Sustainable Building Program of Study

“Get the message out there of what you are doing. Put out publications, integrate it into professional development, find your champions and use them repeatedly.”

What makes an effective team?

Secondary/postsecondary alignment: *create/work closely with a regional coordinators’ network.*

In order for this work to reach schools and districts statewide, a structured and experienced network is critical for statewide implementation. A regional coordinators’ network can provide the structure needed to connect otherwise disparate secondary and postsecondary sectors to develop a shared vision.

State and local representation: *look for existing relationships.*

Secondary partners that already have connections to community colleges, for example, are a good place to start with developing a model. Working from existing relationships and connections could reduce process and strengthen ties.

Bringing in industry: *develop a sense of ownership by industry.*

The education sector often gets stuck on the “what,” while industry forces the question “why.” The objective is to connect the two thoughts. If industry has a sense of ownership in the process, overall commitment and participation is likely to be consistent and the essential questions and direction they bring is imperative to developing a POS.

Developing shared language and compatible process: *see the big picture.*

Meet frequently and ensure that discussions and work are framed by the big picture. Why are we all here? What is our shared goal? Do not take these questions for granted; while the answers may seem obvious, it is not unusual to find that everyone is not on the same page.

Oregon’s next steps

Follow Oregon on their website as they move forward into the implementation stages of this project. Detailed information and materials are available at www.ode.state.or.us/go/green and their [presentation^{xv}](#) at the 2010 Career Clusters Institute shares more specifics about the project. They are spreading the news about their project at state CTE conferences and generating interest and buy-in from other potential stakeholders.

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Take Away: challenges to anticipate and tips to help you through

- Creating a POS takes longer than you may think. The first year will most likely be dedicated to laying the groundwork and establishing the necessary relationships for moving forward to implementation.
- Building a statewide system is a challenge and there are different approaches. From these five states you can see examples that begin at the local level and then work towards statewide, while others begin statewide. Differences among states are ok. Borrow ideas from other states but you need to make this work for your state.
- Recognize the complex nature of a state model of a POS. In order to get the buy-in necessary for a state model, a diverse spectrum of experts is a must.
- The connections and partnerships you are able to establish between secondary and postsecondary will greatly inform your success.
- Recognize differing capacities of institutions, particularly between secondary and postsecondary groups. Technical College Systems may not have the same capacity to make universal decisions as the State Department of Education. They often are a hub of an organization rather than a policy guiding institution. They can make recommendations and promote, but not require a statewide agreement. In this case, a focus on connections between school districts and postsecondary institutions may be the best course of action. However, building one agreement with a community college, for example, can serve as a model.
- Buy-in must be upper level. Approach this once you have a well-developed draft of the model POS. This buy-in is necessary in order to tackle particular challenges, like credit transfer agreements.
- Use national models. Avoid reinventing the wheel by looking to the national models several states cited as helpful (OVAE's 10-component framework, National Career Clusters, Partnership for 21st Century Skills) to build a foundation. Then make it your own.

Conclusion

Georgia, Illinois, New Jersey, Ohio and Oregon share many common challenges and successes. Overall, each project is at the threshold of implementation. The collaboration between representatives from state and local secondary and postsecondary education and business and industry proved difficult but ultimately yielded results. The teams struggled through language, ideas and definitions to arrive at clarity in thinking that accurately reflects the needs of the workplace and their state economy. Through their pioneering, they are laying a foundation upon which other states can build. Their stories provide valuable lessons-learned to help others anticipate challenges and respond to difficulties as they arise. Their insights can contribute to the larger community and become a public resource about the intricacies of a POS from which all can draw.

What is green?

If you are interested in the “green” aspect of the TA Academy – what is green, the green economy, the nature of green employment and the implications for CTE – see the [presentation^{xvi}](#) given by Dr. Stone from the National Research Center for CTE.

References

The primary research for this publication was conducted via interviews with the team leads and the assigned facilitators from January to June 2010, as well as sitting in on facilitator calls and attending sessions both at the TA Academy conference and the Career Clusters Institute. The facilitators and team leads are vital resources and they are available for further information.

States' Resources for Building a POS

Below you will find a list of links to resources referenced throughout this paper as well as additional resources related to POS and green.

General:

- OVAE's [10-component framework](#)
- NRCCTE [page](#) dedicated to Green-Focused POS TA Academy
- Dr. Stone's [presentation](#) on "Green"
- O*NET [Green Occupations](#)

States:

Georgia

- [Presentation at 2010 Career Clusters Institute](#)
- [State Final Report: Green-Focused POS TA Academy Process](#)
- [POS plan 1](#)
- [POS plan 2](#)

Illinois

- [Presentation at 2010 Career Clusters Institute](#)
- [State Final Report: Green-Focused POS TA Academy Process](#)
- [Self-Assessment](#)
- [Pathways to Results](#)

New Jersey

- [Presentation at 2010 Career Clusters Institute](#)
- [State Final Report: Green-Focused POS TA Academy Process](#)
- [Green-Focused Programs of Study Series: New Jersey Profile - A Podcast with Marie Barry](#)
- [NJ Green Collar Committee](#)

Ohio

- [Presentation at 2010 Career Clusters Institute](#)
- [State Final Report: Green-Focused POS TA Academy Process](#)
- [Green Focused POS: A Tool to Prepare and Educate a Green Workforce \(Part 1 and Part 2\)](#) - Isaac Kershaw Ph.D. - Office of Career-Technical Education, Ohio Dept. of Education, Jerrold Hutton, and William Dodds
- [Using Career Pathways to Reach New Heights](#) - Jerrold L. Hutton, Hocking College
- [Highland High School](#) - William Dodds, Principal
- [Green-Focused Programs of Study Series: Ohio Profile – A Podcast with Ike Kershaw](#)

Oregon

- [Presentation at 2010 Career Clusters Institute](#)
- [State Final Report: Green-Focused POS TA Academy Process](#)
- [Green-Focused Programs of Study page](#) (continuously updated with materials related to the state's ongoing POS development process)
- [Green-Focused Programs of Study Series: Oregon Profile - A Podcast with Tom Thompson](#)

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- i Green POS TA Academy Presentation:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Green%20POS-A7.pdf>
 - ii See page 35 of Perkins for legislation regarding POS: P.L. 109-270 Section 122 (c)(1)(A):
http://cte.ed.gov/docs/perkins_iv.pdf
 - iii OVAE's POS framework: http://www.careertech.org/uploaded_files/POS_Framework.pdf
 - iv Georgia Plan of Study 1:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Pricchett%20Handout%20B7.pdf>
 - v Georgia Plan of Study 2:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Pritchett%20Handout%202%20B7.pdf>
 - vi OVAE's POS framework: http://www.careertech.org/uploaded_files/POS_Framework.pdf
 - vii Georgia's presentation:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Pritchett%20Presentation%20B7.pdf>
 - viii Self-Assessment:
<http://iccbdsrv.iccb.org/programsofstudy/docs/Illinois%20Programs%20of%20Study%20Expectations%20Tool.pdf>
 - ix Illinois' Pathways to Results: <http://occr.illinois.edu/projects/pathways>
 - x NJ Green Collar Committee: http://www.njccvts.org/news_green_collar_committee.aspx
 - xi NJ Going Green report: <http://lwd.dol.state.nj.us/labor/lpa/pub/studyseries/njgreen.pdf>
 - xii Tiered Competency Model: http://www.careeronestop.org/competencymodel/pyramid_definition.aspx
 - xiii New Jersey's CCI presentation: <http://www.careerclusters.org/resources/institutes/cci2010/uploads/Barry%20f8.pdf>
 - xiv Ohio's CCI presentation:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Green%20POS%203-D8.pdf>
 - xv Oregon's CCI Presentation:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Oregon%20Green%20POS-E8.pdf>
 - xvi Dr. Stone Presentation on Green:
<http://www.careerclusters.org/resources/institutes/cci2010/uploads/Charner%20and%20Stone%20A7.pdf>