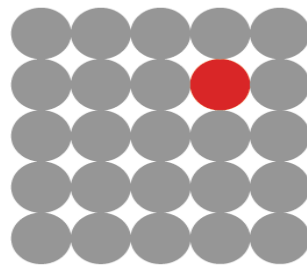
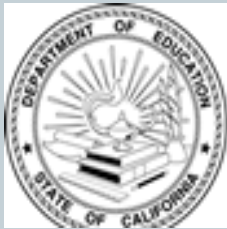


# Improving Access and Opportunities for Nontraditional & Special Population Students Through Career & Technical Education

1

## Planting a Career & Technical Education STEM for the Future



California **Special** Populations



[www.jspac.org](http://www.jspac.org)

# CA Perkins Nontraditional & Special Populations Joint Advisory Committee

2

Jointly funded by the  
California Department of Education  
&  
California Community College Chancellor's Office



# CA Perkins Nontraditional & Special Populations Joint Advisory Committee

[www.jspac.org](http://www.jspac.org)

3

## Committee Monitors

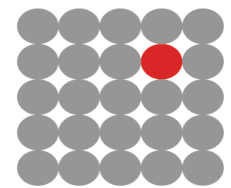
- Dr. R. Mary Gallet –
  - ✦ [mgallet@cde.ca.gov](mailto:mgallet@cde.ca.gov)
  - ✦ California Department of Education
- Sharon Wong –
  - ✦ [swong@cccco.ca.gov](mailto:swong@cccco.ca.gov)
  - ✦ California Community College Chancellor's Office

# CA Perkins Nontraditional & Special Populations Joint Advisory Committee

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JSPAC project & fiscal management provided by  
Grossmont-Cuyamaca Community College District

- Stan Schroeder, Project Director
  - [Stan.Schroeder@gccd.edu](mailto:Stan.Schroeder@gccd.edu)
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  - El Cajon CA 92020
  - (619) 644-7713



California **Special** Populations  
[www.jspac.org](http://www.jspac.org)

# Presenter Information

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- Elizabeth Wallner
  - Wallner Consulting Services
  - 4751 15<sup>th</sup> Ave
  - Sacramento, CA 95820
  - 916-455-4643
  - [eawallner@comcast.net](mailto:eawallner@comcast.net)

# Carl D. Perkins CTE Act of 2006

6

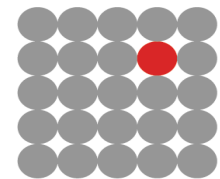
- **What is it?**
  - Legislation that governs CTE programs
- **Do you know how is it used by your LEA?**
  - Who writes Perkins Plan?
  - How are your funds used?
  - Do you know how much your LEA receives?
- **What costs does Perkins IV cover?**
  - Required expenditures
  - Permissible expenditures
- **What data must you report?**
  - Core Indicators

# What are Core Indicators?

7

## Measures of Accountability

1. **Technical skill attainment**
2. **Completions - credential, certificate, degree, transfer prepared**
3. **Persistence and transfer**
4. **Employment**
5. **Nontraditional**
  - a. **NT Participation**
  - b. **NT Completions**



California **Special** Populations

# What's New in Perkins IV?

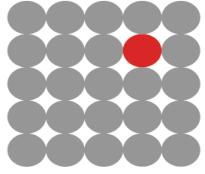
8

- **Addition of Technical Assistance**
- **New 'teeth' for failure to attain core indicator goals**
- **Emphasis on professional development**
- **New focus on students from special populations**

# Who are Students From Special Populations?

9

- Individuals with disabilities
- Individuals from economically disadvantaged families; including foster children
- Single parents, including single pregnant women and teen parents
- Displaced homemakers
- Individuals with limited English proficiency
- **Individuals preparing for a career that is Nontraditional by gender**



# What students need to know to make informed career choices

# Basic Student Information...

11

- **Setting financially realistic goals**
  - What does it cost to live in YOUR geographic area?
    - ✦ <http://www.insightccd.org/>
    - ✦ <http://www.californiarealitycheck.com/start.htm> .
- **Understanding of one's abilities, strengths, weaknesses**
  - ✦ <http://www.careertest.net>
- **Information on the status of the LOCAL economy**
  - ✦ <http://www.labormarketinfo.edd.ca.gov/cgi/databrowsing/occExplorerQSSelection.asp?menuChoice=occExplorer>

# Insight: Center For Community Economic Development

12

**Insight** is a network that works towards:

- Advancing policies and programs that allow working families to move out of poverty
- Measures income needed for a family to adequately meet their needs – **without** public or private assistance.
  - 70 different family compositions
  - Each California county – 2008 data
  - <http://www.insightccd.org/>





## Reality Check

After High School you will need to work to pay for housing, transportation, clothes...  
You will need money.  
You will need an occupation.

Below are three ways to choose an occupation.

### 1. Get A Reality Check.

Don't know how much money you will need to earn in the future? Don't know which occupation to choose? No Problem.

Get a Reality Check. Find out how much you will spend each year. Buy "stuff" for a sample month. Let's start.

### 2. Future Salary

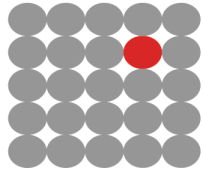
Already know how much money you want to earn? Great. Enter the amount and get information on which occupations pay that much.

### 3. Occupation Direct.

Already know which occupation you want to pursue? Great. Enter the name and get info on your chosen occupation.



- Wages
- Career projections
- Job openings (by zip code)
- Top 15 Industries employing this occupation
- Training choices
- O\*net skills and tasks
  - <http://www.labormarketinfo.edd.ca.gov/> = click on "Explore jobs in your area with the [Occupation Profile](#)"
- Also has interest/skill inventories



# Steps Districts/Schools can Take to Increase Student Achievement

# Integrate Academics with Career & Technical Education

16

- Increase student comprehension of core subjects
- Answers student question - when/where is this used?
- Application focused instruction
- Motivate interest in academics in general
- Increase student academic performance
- Increase student retention
- Increase student graduation

# Integrate Core Academic Subjects with CTE

17

<b>Academic/STEM Courses</b>	<b>CTE COURSES</b>
<b>Science</b>	<b>Agriculture, Food Science, Energy, Biotechnology</b>
<b>Technology</b>	<b>Drafting, Gaming, Network, Media,</b>
<b>Engineering</b>	<b>Automotive, Construction, Manufacturing, Architecture, Computer Hardware</b>
<b>Mathematics</b>	<b>ALL CTE-Industry Math, Accounting, Finance</b>
<b>English</b>	<b>ALL CTE - Business Application across all CTE, Technical English</b>

# Standards and Frameworks

18

- **Standards are based in research.**  
Standards provide a focus on content—that is, what students actually need to know and be able to do.
- **Standards are rigorous and relevant.**  
These programs teach rigorous academic concepts within the context of career education.
- **Standards describe what to teach, not how to teach it.**  
Standards-based education maintains California’s historical respect for local control of schools.
- **Standards are a continuing commitment to excellence.**  
Standards answer the critical question, “What should our students be learning?”
  - <http://www.cde.ca.gov/ci/ct/sf/documents/ctestandards.pdf>

# Framework Introduction

19

- **Vision Statement**

Career technical education **engages all students** in a dynamic and seamless learning experience **resulting in their mastery of the career and academic knowledge** and skills necessary to become productive, contributing members of society.

- **Mission Statement**

California's education system delivers high-quality programs, resources, and services **to prepare all students for career and academic success**, postsecondary education, and adult roles and responsibilities.

<http://www.cde.ca.gov/ci/ct/sf/documents/cteframework.pdf>

# Schools: Creating Solutions

20



[www.napequity.org](http://www.napequity.org)

# Caution...

21

- Sometimes data can surprise you
- If its too good to be true ask:
  - Are you missing something
  - Is the data incorrect

# Step 1: Document Performance Gaps

22

**Understand the problem  
completely before you seek  
solutions!**

**Accountability measures have meaning when the  
data is used for program improvement**

# What are You Looking for?

23

- **Over/under representation**
  - **75%/25% gender rule**
    - Less than 25% of any gender makes a program nontraditional
  - **+/- 10% rule ethnicity rule**
    - 10% difference in program enrollment versus LEA representation may indicate a recruitment or counseling bias
- **What do the data indicate?**
  - Can you trust the data?
  - Concerns?
  - Timing of measurement?
  - Reliability?
  - Coverage?
  - What else is needed?

# Cluster: Health Services, Title: Med. Office Svcs.

24

• Male students	72	• Econ. Disadvantaged	691
• Female students	957	• Nontraditional	72
• Male Completers	43	• Disabled	78
• Female Completers	566	• Single Parents	93
• Male Completers	60%	• Displaced Homemaker	43
• Female Completers	59%	• ESL/LEP	20

**Annual Mean Salary \$36,056**  
**Increase 19% -- 630 jobs in CA annually**

# Cluster: Construction, Course: Electricians

25

• Male students	87	• Econ. Disadvantaged	51
• Female students	4	• Nontraditional	4
• Male Completers	32	• Disabled	2
• Female Completers	3	• Single Parents	1
• Male Completers	37%	• Displaced Homemakers	0
• Female Completers	75%	• ESL/LEP	0

**Annual Mean Salary = \$54,951**

**10.2 % change in employment = 2,460 jobs annually**

# Step 2: Identify Root Causes

26

- **Ways to search for Root Causes**

- Brainstorming
- Literature review
- Analyzing student data
- Focus groups
- Reviewing program/institutional evaluations & effectiveness reviews
- Peer benchmarking

- **Develop an exhaustive list of Root Causes affecting \_\_\_\_\_ CTE program**

- **Pick **three** and analyze them further**

**Don't Settle for  
Conventional Wisdom  
& Symptoms—Never  
Stop Asking Why**

# Identify Root Causes -- Continued

27

- Identify potential causes
- Analyze and evaluate potential causes
  - **Causes within control**
    - Student motivation and engagement
    - Effective instructional practices
    - Teacher training/education
    - School expectations/incentives
    - Perceived career relevance
  - **Causes outside control**
    - Student transfer/mobility levels
    - Family income
    - Parents' education
    - School resources
- Organize your theory and select most critical root causes

# Step 3: Select Effective Solutions

28

- Things to think about in selecting strategies:
  - **Sound theory** – does it make sense to all?
  - **Strong evidence** – has it worked elsewhere?
  - **Cost and time of testing** – can our site afford to test solution!
  - **Resources and support** – can we afford the solution?
  - **Stakeholder support** – do we all agree?

# Step 4: Pilot Test and Evaluate Solutions

29

- ... create a **pilot test and evaluation** that will allow you to assess how well the improvement strategies and models are working.
  - Choose a study design
  - Select pilot sites
  - Select outcome measures
  - Identify data sources
    - ✦ Grades, surveys, interviews, classroom visits, focus groups,
  - Train staff

Make sure your improvement strategy works somewhere before you attempt to apply it everywhere...

# Step 5: Implement Solutions

30

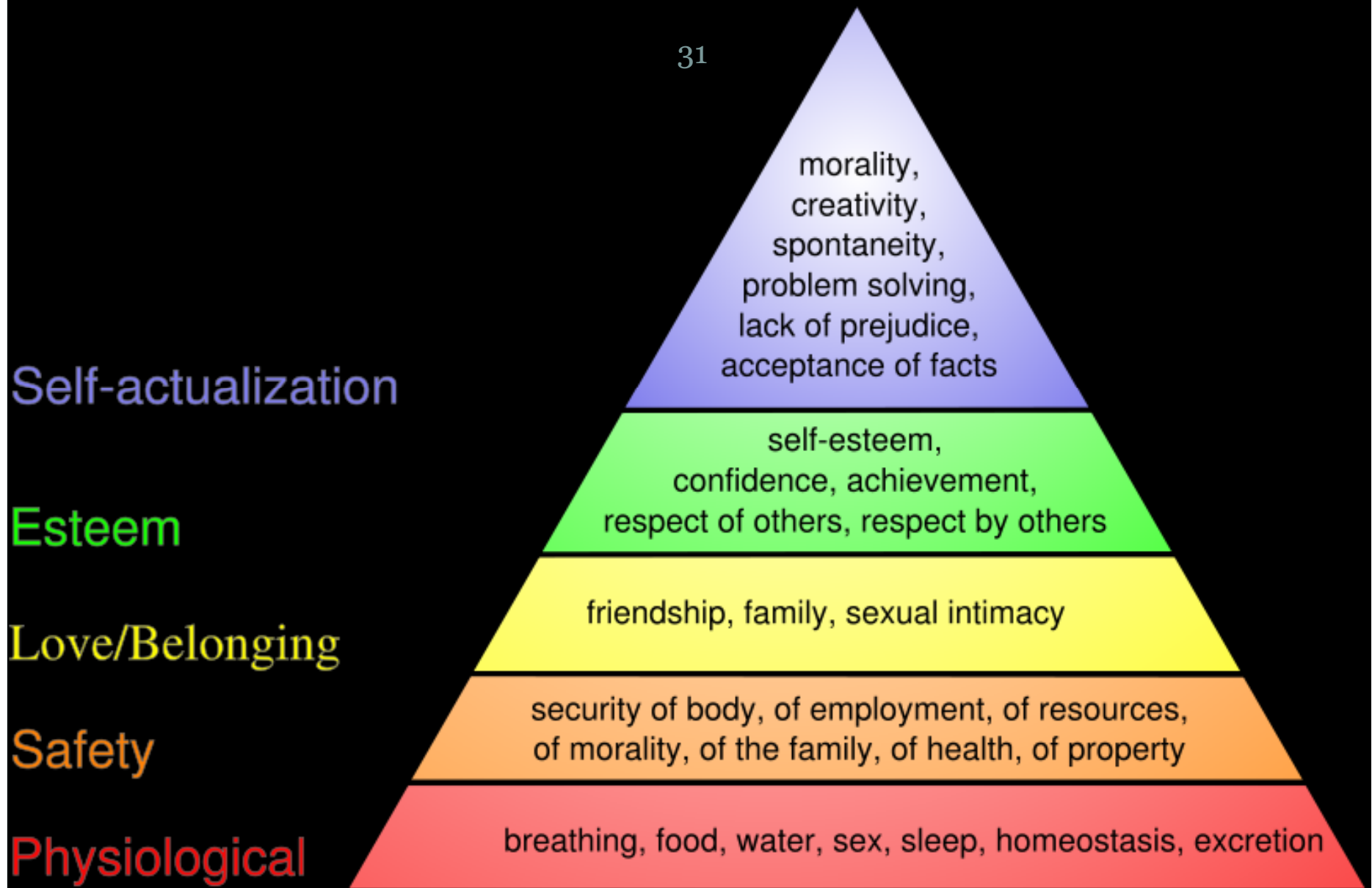
- ***IF*** the pilot is successful...

- Move from pilot site to sphere of influence
- Monitor implementation
- Adjust as needed!

Don't say you've addressed the problem until you've fully implemented solutions and *achieved results!*

- Guide for Program Improvement Perkins IV: NT CTE Program Participation and Completion National Alliance for Partnerships in Equity: [www.napequity.org](http://www.napequity.org)

# Maslow - a Hierarchy of Needs



# Economically Disadvantaged

32

- **Security, safety:**
  - Are students safe and secure enough to benefit from education? Do they have: housing, food, transportation, childcare... Integrate school and community-based services.
- **Belonging; self-esteem:**
  - Can students see themselves in the career of their choosing? Do they have self-efficacy, role models, mentors, peer mentors, parents, peer response/interactions, early exposure.
- **Self actualization:**
  - Can students succeed in the CTE program of choice? Do they have access to educational assistance: tuition fees, book vouchers, clothes closets, connect education to economics.

# Single Parents, Single Pregnant Women

33

- **Instructional Needs**
  - GED
  - ESL/Lep
  - Soft Skills
  - Parenting skills
  - Financial education
- **Life Supports**
  - Mentors
  - Food Banks
  - CalWORKs
  - Housing information
  - Transportation assistance
  - Physical/mental health
  - Business/work attire



# English as a Second Language

34

- Be aware of cultural differences.
- Learn a few words in students language.
- Have pictorial dictionaries in both/all languages.
- Lecture, tactile learning, group projects, independent learning... visual v. kinesthetic learning.
- Work closely with ESL student support personnel to ensure student success and bilingual materials as necessary.
- Supplement materials.
- Outlines, PowerPoints, notes.
- Give all students time to respond to questions.

# Disabled

35

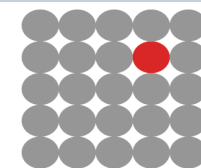
- Encourage individual student-teacher interaction
- Disseminate classroom/program/school materials as soon as possible, in writing, and with accommodations as necessary
- Use a variety of teaching methods.
- Remember that there are pros and cons of being disabled
  - Disabilities are often difficult but some students become very adept at handling change
- Encourage student-run learning cooperatives



# Displaced Homemakers

36

- What does it take to run a home?
- What skills do they have?
- Support groups
- Offer classes in stress management, study skills, planning etc.
- Dress for success
- Soft skills



California **Special** Populations

# The Way Out

37

Individuals that  
are preparing for  
**Nontraditional**  
fields



Image from [www.gettyimages.com](http://www.gettyimages.com)

# Earnings\* in Male & Female Traditional Fields

38

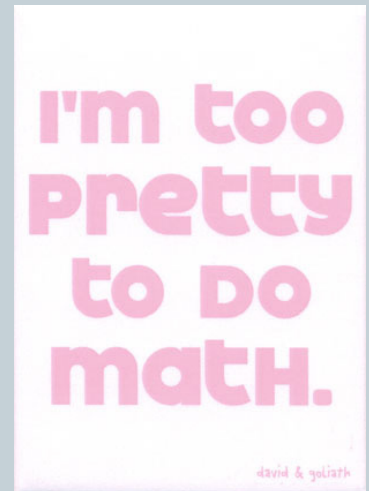
• Cashiers	\$16,806	Carpenter	\$36,545
• Care giver	\$17,763	Truck drivers	\$38,230
• Childcare	~\$20,000	Computer support	\$41,470
• Floral designer	\$21,700	Electrician	\$43,617
• Secretary	\$27,450	CTE teacher	\$50,090
• Teacher	~\$45,000	Engineer: civil	\$68,600
• Office manager	~\$45,000	Const. mgr	\$70,000
• Nurse	\$57,280	Engineer: comp.	\$88,470
• Health mgrs	\$67,000	CIS	\$93,950

\*median earnings, <http://www.bls.gov/oco/>

# Facts or Myths?

39

- From the time they start school, most girls are less interested in science than boys are.
- Classroom interventions that work to increase girls' interest in STEM run the risk of turning off the boys.
- Science and math teachers are no longer biased toward their male students.
- Women are not strong enough to do heavy labor.
- A man's place is in the workforce making money as the breadwinner in the family.



<http://phase.arizona.edu/NONTRAD/NT101/NewLook/Awareness/Awareness6.htm>

[www.nsf.gov/news/news\\_summ.jsp?cntn\\_id=109939](http://www.nsf.gov/news/news_summ.jsp?cntn_id=109939)

# Why do We Focus on Nontraditional?

40

- **Approximately twice as many female headed households are in poverty as opposed to male headed households**
  - 6% → 17% Asian                      16% → 39% Hispanic
  - 27 % → 39% Black                      12% → 26% White
  - <http://www.census.gov/hhes/www/poverty/detailedpovtabs.html>
- **Gender is not a good predictor of academic skills, interests, or emotional characteristics**
  - <http://www.napequity.org/pdf/Stereo.pdf>, NAPE
- **Women have a 90% chance of becoming sole support of themselves and/or their family at some time in their lives**
  - [www.jspac.org](http://www.jspac.org)

# Root Causes and Influences

41

- **Role models/mentors:**
  - **Role models:** At a distance - online, business, teachers, graduates...
  - **Mentors:** Higher up the ladder of success, an authority, effective in their life, genuine interest in mentees success, willing to commit time & emotion ([www.diversityweb.org/](http://www.diversityweb.org/) )
- **Early exposure:** can happen at any time!
- **Self-efficacy:** women underestimate their abilities, including their ability to learn and their verbal and spatial (and visual) skills and aptitudes (<http://www.3smartcubes.com>)
- **Career guidance materials and practices:** Gender balanced, ethnically diverse, ability focused ([www.napequity.org](http://www.napequity.org) )

# Improvement Techniques

42

- ❖ **Evaluate** teaching styles, classrooms, materials
  - ❖ *Achieving Gender Equity: Strategies for the Classroom* , Dianne D. Horgan
  - ❖ *Achieving Diversity: The Sociopolitical Concept of Multicultural Education* by Sonia Nieto
- ❖ **Recruit** in groups, develop support groups
  - ❖ Nontraditional (NT) newsletter, address harassment issues, address barriers, professional development for all staff
- ❖ **Market programs**
  - ❖ Role models (gender, disabled & culturally diverse)
  - ❖ Photos of former nontraditional students
  - ❖ Invitations to nontraditional classes
- ❖ **Encourage the participation of students in:**
  - ❖ Other NT classes, mentoring, job shadowing, tutoring, career days

# California Department of Education (CDE) Resources

43

- Career Technical Education
  - <http://www.cde.ca.gov/ci/ct/>
- Perkins
  - <http://www.cde.ca.gov/ci/ct/pk/>
- CTE-Perkins Consultants List
  - <http://www.cde.ca.gov/ci/ct/pk/contacts.asp>
- CTE Online
  - <http://www.cde.ca.gov/ci/ct/gi/cteonline.asp>
- Nontraditional Career Lists for California
  - <http://www.cde.ca.gov/ci/ct/pk/nontrad.asp>



# CCCCO Online Resources

44

- **CCCCO CTE Unit**
  - <http://www.cccco.edu/SystemOffice/Divisions/EconDevWorkPrep/CTE/tabid/415/Default.aspx>
- **CCCCO CTE Unit Staff Directory**
  - <http://www.cccco.edu/SystemOffice/Divisions/EconDevWorkPrep/CTE/CTEStaff/tabid/493/Default.aspx>
- **CCCCO Economic & Workforce Development Unit**
  - <http://www.cccco.edu/SystemOffice/Divisions/EconDevWorkPrep/EWD/tabid/379/Default.aspx>
- **CCCCO Student Services and Special Programs**
  - <http://www.cccco.edu/SystemOffice/Divisions/StudentServices/tabid/237/Default.aspx>

# Nontraditional & Special Population Resources

45

- **CA CCC SP Collaborative Project**
  - [www.cccspecialpopulations.org](http://www.cccspecialpopulations.org)
  - [www.vteabp.org](http://www.vteabp.org)
- **CA Nontraditional & Special Populations Joint Advisory Committee**
  - [www.jspac.org](http://www.jspac.org)
- **National Alliance for Partnerships in Equity & STEM Equity Pipeline Project**
  - [www.napequity.org](http://www.napequity.org)
- **Women Tech Train-the-Trainer Workshops**
  - [www.iitts.com](http://www.iitts.com)

# Other Online Resources

46

- **Tufts University Child and Family Web Guide**

- <http://www.cfw.tufts.edu/category/3.htm>

- ✦ ACT/SAT

Learning/physical disabilities

- ✦ Testing/NCLB

Literacy/reading

- ✦ preschool curriculum

Bilingual education

- ✦ Mentoring

School readiness

- ✦ Multicultural ed.

Childcare/preschool

- **Harvard Project Implicit**

- <https://implicit.harvard.edu/>



- **Learning Disabled**

- <http://www.nclد.org/content/view/403/456/>

# JSPAC Needs YOU!

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- **We need your input** to continue to improve our services to you and therefore CA CTE students. If you have a need or a concern, please:
  - **Contact** Tammy Montgomery, Mary Gallet, Sharon Wong or your presenter
  - **Visit** the JSPAC website at [www.jspac.org](http://www.jspac.org) to send us a message
  - **Join** the list-serve to receive updates, resources, professional development notices etc... ([www.jspac.org](http://www.jspac.org))
  - **Apply** to be a member of the CA Perkins Nontraditional & Special Population Joint Advisory Committee (JSPAC)
  - **Attend** (or send staff to) meetings, workshops, annual conference...

# Thank you!

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Questions?

Comments?

Evaluations!

