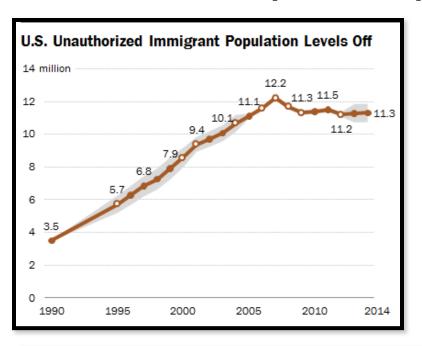
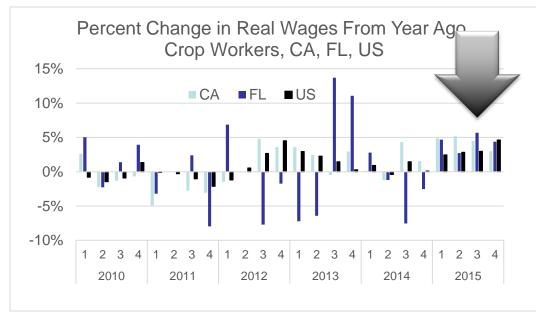
## **Immigration & Farm Labor**

#### Philip Martin: plmartin@ucdavis.edu









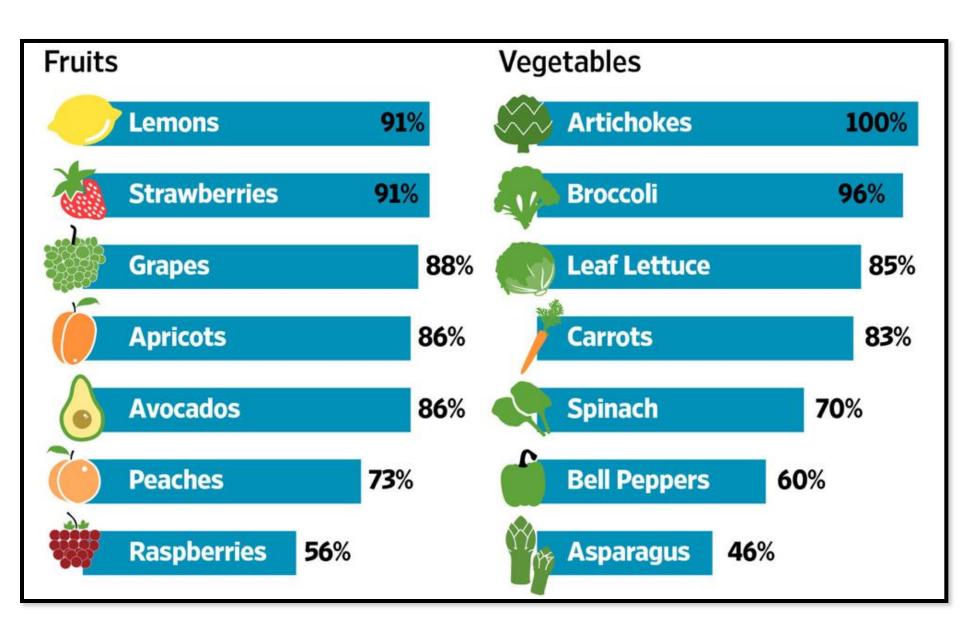
## **Highlights**

- **Hired workers** do most of the work in FVH commodities (fruits, veggies, & nurseries)
- **Hired farm workers** = Mexican-born (70%); **not** authorized to work in the US (45%); settled & aging
- Employer responses to fewer newcomers
- Satisfy current workers: bonuses, super training—growers think inelastic supply, so wage increases do not help
- Stretch current workers: mechanical aids, change
   production practices to make work easier; older & women
- Substitution: labor-saving mechanization
- Supplement: young H-2A workers provide fresh blood, but
   (1) recruit US, (2) provide housing, (3) pay AEWR (\$12 CA)
- Uncertainty: no one knows best combination

#### FVH ag = 3 Ss: Sales, Labor's Share, Seasonality

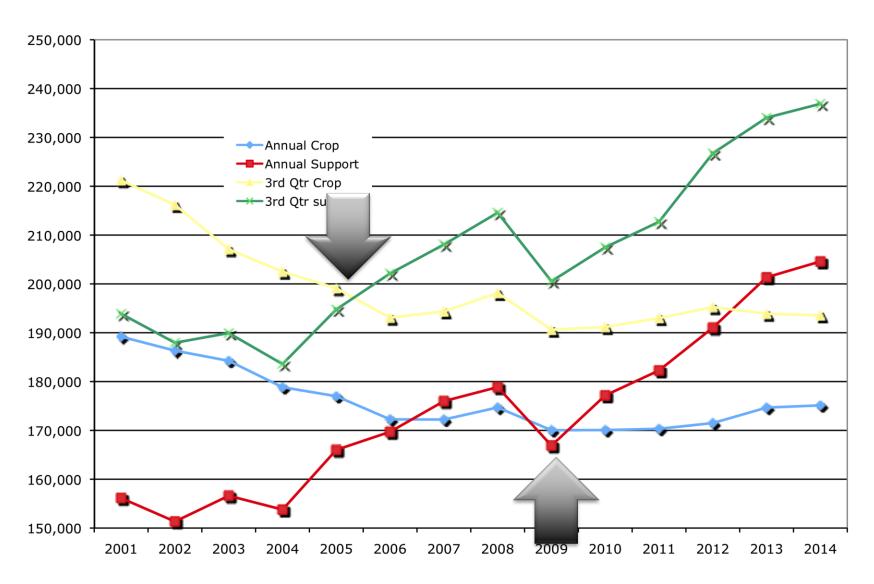
- Farm sales = CA \$43 bil (2012); IA = \$31 bil
  - -CA = 12% of US \$395 billion in farm sales
  - -US farm sales: 54% crops, 46% livestock CA farm sales: 70% crops, 30% livestock
  - -CA \$26 bil of \$30 bil crop sales or 87% = FVH commodities
- FVH: labor's share: 30% of prod costs
- **Seasonality**: Ave CA farm employ 414,000 (2014). Peak 471,000 Aug; low 344,000 Jan. Peak-trough ratio = 1.4, & up as geography down; 100 to 1 on a farm (standby workers).

#### **CA Shares of US FVH Production**



## Who hires? CA since 2007: more workers brought to farms by crop support (FLCs) than hired directly. Gap is widening

Average Annual & 3rd Quarter Employment, 2001-14





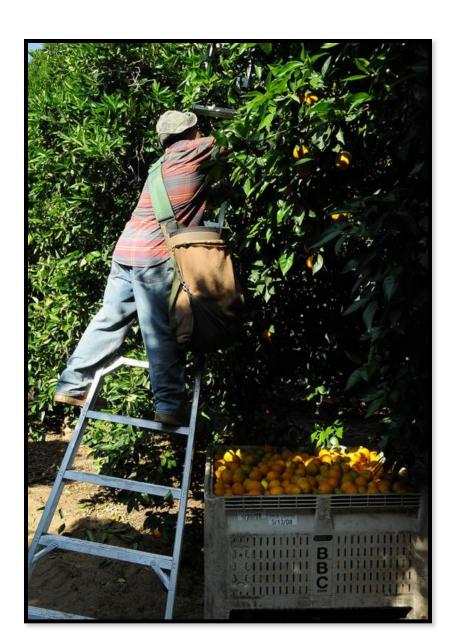
3,000 US FLCs; 1,200 in CA FLCs: Increase efficiency of worker-job matching or risk absorbers?



### Common crop support: harvesting tree fruits







## CA strawberries: 90% of US 3 billion pounds 40,000 acres, 60,000 to 70,000 workers







# Vegetables: both direct-hire & workers via crop support firms











Nursery & dairy Big 5 of 15: crop support, FVH, & dairy = 95% of CA ag employment & wages

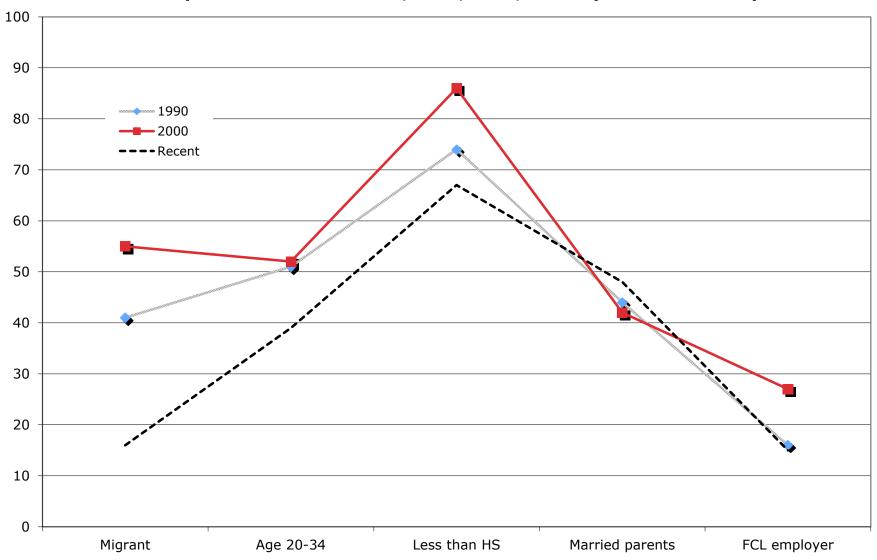


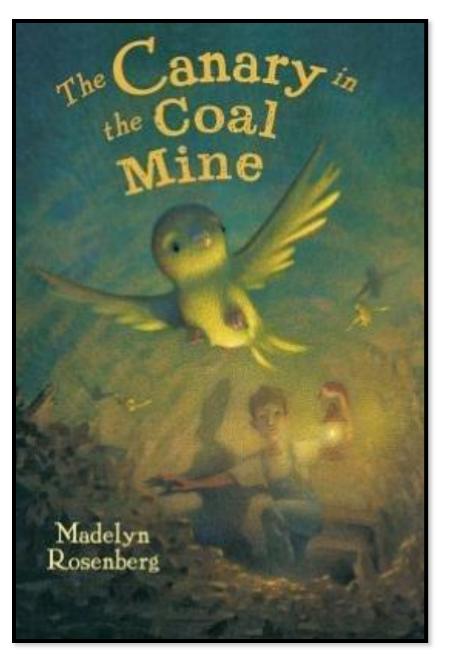
## **CA Hired Crop Workers**

- Men born in Mexico: 90%; 60% unauthorized. V-shape legal status
  - Fewer newcomers (workers in US less than 1 year). From 20% to 2% today. Result: average age (38) & weeks of farm work (35) up
  - 50% of all crop workers, & 2/3 of foreign-born farm workers, are unauthorized. CA has > % unauthorized because more CA farm workers are foreign born
- Employ and earns: more weeks, higher wages
  - Average \$9.31/ hour across US; \$9.22 in CA in 2012
  - 35 weeks of farm work + 7 weeks of nonfarm work: 42 weeks, or close to 48 weeks full-time work
  - Annual earnings average \$15,000-\$17,000/ year
- Farm work like nonfarm work: live off the farm, commute to work, have 1 farm employer/year

#### Inverted V: Migrancy, youth, low education, FLC peak in 2000

US crop worker characteristics, 1990, 2000, recent (share of workers)





## Agriculture: first to feel effects of fewer newcomers



## **Employers: 4-S responses**

- Satisfy current farm workers with bonuses, benefits, & better supervisors. If supply of workers in US = inelastic, wage increases do not add to supply
- Stretch with mechanical aids that increase productivity: conveyor belts in fields, dwarf trees. How much to invest, how fast to deploy?
- **Substitute**: labor-saving mechanization. Will wages keep rising to justify long-term investments? Involve seed companies with long horizons?
- **Supplement** the labor force with H-2As. Will expanded H-2 show that current program is OK or will Congress enact a no-recruitment & no-housing guest worker program?

## Satisfy: bonuses, benefits, supervisor training & respect Most farmers: satisfy will not ENLARGE ag workforce







#### Stretch: mechanical aids to raise worker productivity









#### Bell peppers: with and without conveyor belt









#### Thinning and harvesting apples from platforms



Workers share piece rate wages when picking on platforms.
Sweet tango apples
Dwarf trees & no ladders

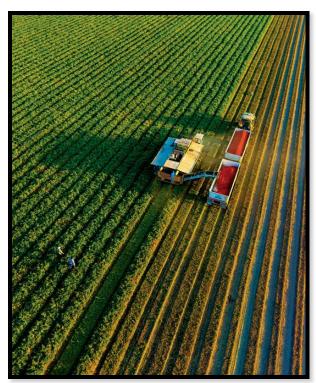




#### Substitute: mechanize olives, carrots, tomatoes, nursery

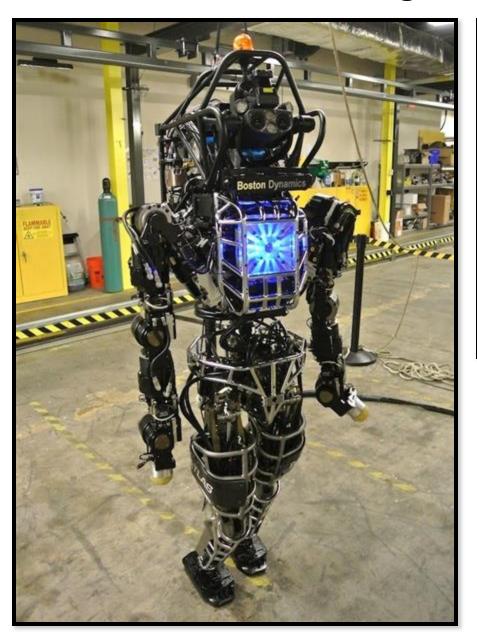








#### **Defense vs Ag: Performance & Costs**









#### **Mechanization**







#### Forbes: drew 425 participants to Salinas: LettuceBot







#### Supplement with H-2As: 75,000 FY07, 140,000 FY15. CA&WA

#### OFFICE OF FOREIGN LABOR CERTIFICATION

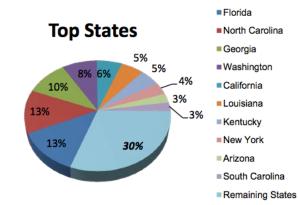
H-2A Temporary Agricultural Labor Certification Program - Selected Statistics, FY 2015

**Applications Received** 

YTD	Q1	Q2	Q3	Q4
7,562	1,570	3,359	1,824	809

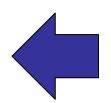
**Applications Processed** 

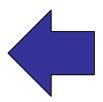
Determination	YTD	Q1	Q2	Q3	Q4
Total Determinations	7,568	1,022	3,407	2,124	1,015
- Certified	7,195	954	3,298	2,011	932
- Denied	210	38	57	64	51
- Withdrawn	163	30	52	49	32
Positions Requested	145,874	22,639	45,480	49,020	28,735
Positions Certified	139,832	21,720	43,740	47,092	27,280



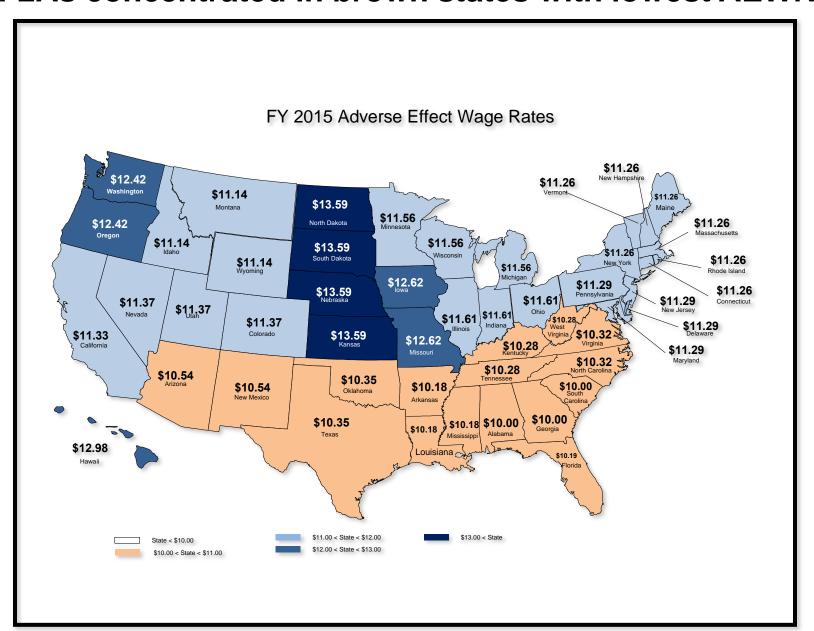
Ton Crons	■ Tobacco	
Top Crops	■Berries	
5%_ 4% 4% 3% 3% _3%	■ Hay and Straw	
5%	■ Apples	
370	■ Oranges	
9%	Fruits and Vegetables	

Selected Statistics by Worker Positions Certified					
	Florida	17,942			
	North Carolina	17,696			
	Georgia	14,393			
	Washington	11,844			
Top 10 States	California	8,591			
Top to States	Louisiana	7,787			
	Kentucky	6,722			
	New York	5,039			
	Arizona	3,763			
	South Carolina	3,594			
	North Carolina Growers Association, Inc. (NCGA)	11,767			
	Washington Farm Labor Assn.	7,895			
	Fresh Harvest, Inc.	3,176			
	Zirkle Fruit Company	2,889			
Top 10 Employers	Rodrigo Gutierrez-Tapia	2,308			
Employers	Virginia Agricultural Growers Assn., Inc. (VAGA)	1,626			
	R & R Harvesting, Inc.	1,578			
	Peri & Sons Farms, Inc.	1,565			
	H-2A Complete II, Inc.	1,533			
	Sierra Cascade Nursery, Inc.	1,305			
	Tobacco <sup>3</sup>	23,291			
	Berries <sup>4</sup>	12,358			
	Hay and Straw⁵	6,763			
	Apples <sup>6</sup>	6,641			
Top 10 Crops/	Oranges <sup>7</sup>	5,733			
Occupations	Fruits and Vegetables <sup>8</sup>	5,421			
	Nursery and Greenhouse Workers	4,997			





## AEWRs 2015: \$10.32 in NC, \$12.42 in WA, \$11.33 in CA H-2As concentrated in brown states with lowest AEWRs



#### CA H-2As: 3,000 in 2012, 8,600 in 2015

- CA: many vegetable firms operate year-round. Leafy green vegetables in Yuma, SJV, & Salinas
  - Border labor force is legal
  - Bring border H-2As to Salinas: move from motels to FW housing? (T&A: \$8 million to house 800 workers in Spreckels, \$10,000 per bed)
  - Old: largest CA H-2A user: Sierra-Cascade strawberry nursery (1,300 H-2As in Tulelake; WWII Japanese intern)
- H-2A expansion: led by coastal vegetable growers, not SJV fruit industry. Half of CA farm labor is in SJV, where fruit industry is concentrated, & there is less grower-shipper integration
- Some shippers: increase imports, esp of Mexican berries

#### T&A 800 beds in Spreckels: return to on-farm housing?



T&A: 800
employees at
145-unit apt in
Yuma, AZ
since 2007



## Summary

- Average farm employment up as expansion offsets mechanization. Berries up as raisins mechanize
- Farm workers: fewer new entrants & aging, settled farm workforce with US-born children
- Employer responses to fewer newcomers
  - Satisfy: 40/40 rule: keep current workers longer
  - Stretch: labor-stretching mechanical aids
  - Substitute: labor-saving mechanization
  - Supplement: H-2A workers; try to change rules to reduce requirements on employers via recruitment, housing, & AEWR
- Which of the 4 S's takes priority? What variance by commodity and area?