Agricultural Labor Trends in the US
Importance of Farm Labor

• Farm wages and salaries represent roughly
  – 14% of total cash expenses for all farms
  – 39% of expenses for specialty crops
  (Source – ARMS)

• Supply of farm labor shrinking

  Farm wages rise
"U.S. agriculture faces a critical shortage of workers every year, as citizens are unwilling to engage in these physical demanding activities and guest-worker programs are unable to respond to the marketplace."

– American Farm Bureau Federation

“The U.S. pork industry is suffering from a serious labor shortage, negatively impacting farms and processing plants."

– National Pork Producers Council
Real hourly wages for hired farmworkers, all agricultural workers, and AEWR, 1989-2017

Note: Excludes those hired by labor contractors; includes Hawaii, excludes Alaska. Inflation adjustment uses the CPI-U-RS. AEWR is the Adverse Effect Wage Rate; regional estimates of the AEWR are used in the calculation of required minimum wages for H-2A temporary agricultural workers.

Paid and unpaid agricultural work by type of worker, 2003-16

Percent of hours

<table>
<thead>
<tr>
<th>Year</th>
<th>Principal operator*</th>
<th>Spouse*</th>
<th>Other operators and unpaid*</th>
<th>Contract labor</th>
<th>Hired labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>49.6</td>
<td>11.4</td>
<td>13.8</td>
<td>20.3</td>
<td>5.0</td>
</tr>
<tr>
<td>2011</td>
<td>46.5</td>
<td>12.8</td>
<td>9.0</td>
<td>25.7</td>
<td>6.0</td>
</tr>
<tr>
<td>2016</td>
<td>39.5</td>
<td>9.4</td>
<td>10.0</td>
<td>35.3</td>
<td>5.7</td>
</tr>
</tbody>
</table>

*Includes paid and unpaid labor.
Legal status of hired crop farmworkers, fiscal 1991-2014

Note: Values for each year are 3-year moving averages to smooth fluctuations; e.g., data reported for fiscal 2014 are the average of fiscal 2012-14. U.S. born includes those born in Puerto Rico.
Migration patterns of hired crop farmworkers, fiscal 1991-2014

Note: Values for each year are 3-year moving averages to smooth fluctuations; e.g., data reported for fiscal 2014 are the average of fiscal 2012-14. U.S. born includes those born in Puerto Rico.

Average age of farm laborers, graders, and sorters, by place of birth, 2006-16

Changing Labor Landscape

How are agricultural producers adapting to these worker shortages?

Technology

H-2A workers
Technology

Harvest Croo Robotics
What is H-2A?

• Temporary, legal, agricultural “guest” workers from outside the US

• Can only fill positions that employers are not able to fill with legal, domestic workers

• Considerable bureaucracy and costs
Why H-2A?

• Make up for worker “shortage”

• Legal

• Reliable

• Productive
# H-2A vs Domestic

<table>
<thead>
<tr>
<th>Description</th>
<th>H-2A Worker</th>
<th>Domestic Worker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment status</td>
<td>contract</td>
<td>“at-will”</td>
</tr>
<tr>
<td>Minimum average hourly earnings (as of Jan 1, 2017)</td>
<td>$11.12</td>
<td>$8.10</td>
</tr>
<tr>
<td>Guaranteed hours</td>
<td>75% (total “offered” hrs)</td>
<td>None</td>
</tr>
<tr>
<td>In-season transportation</td>
<td>Free – housing</td>
<td>Free – pick up pt</td>
</tr>
<tr>
<td>Insurance, WC (mandatory) &amp; ACA (choice)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Employer Social Security contribution</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
H-2A Wage Rate

2019 Adverse Effect Wage Rates
Program Growth
<table>
<thead>
<tr>
<th>Year</th>
<th>Av. # of Hired Farm Workers¹</th>
<th># of H-2A Positions Certified²</th>
<th># of H-2A Visas Issued³</th>
<th>% Farm Work Positions Filled by H-2A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>879,000</td>
<td>--</td>
<td>16,011</td>
<td>2%</td>
</tr>
<tr>
<td>1998</td>
<td>879,500</td>
<td>--</td>
<td>22,676</td>
<td>3%</td>
</tr>
<tr>
<td>1999</td>
<td>923,250</td>
<td>--</td>
<td>28,568</td>
<td>3%</td>
</tr>
<tr>
<td>2000</td>
<td>887,750</td>
<td>--</td>
<td>30,201</td>
<td>3%</td>
</tr>
<tr>
<td>2001</td>
<td>873,250</td>
<td>--</td>
<td>31,523</td>
<td>4%</td>
</tr>
<tr>
<td>2002</td>
<td>884,500</td>
<td>--</td>
<td>31,538</td>
<td>4%</td>
</tr>
<tr>
<td>2003</td>
<td>836,000</td>
<td>--</td>
<td>29,882</td>
<td>4%</td>
</tr>
<tr>
<td>2004</td>
<td>824,750</td>
<td>--</td>
<td>31,774</td>
<td>4%</td>
</tr>
<tr>
<td>2005</td>
<td>777,750</td>
<td>--</td>
<td>31,892</td>
<td>4%</td>
</tr>
<tr>
<td>2006</td>
<td>751,250</td>
<td>59,110</td>
<td>37,149</td>
<td>5%</td>
</tr>
<tr>
<td>2007</td>
<td>789,667</td>
<td>76,814</td>
<td>46,432</td>
<td>6%</td>
</tr>
<tr>
<td>2008</td>
<td>730,750</td>
<td>82,099</td>
<td>64,404</td>
<td>9%</td>
</tr>
<tr>
<td>2009</td>
<td>739,250</td>
<td>86,014</td>
<td>60,112</td>
<td>8%</td>
</tr>
<tr>
<td>2010</td>
<td>762,500</td>
<td>79,011</td>
<td>55,921</td>
<td>7%</td>
</tr>
<tr>
<td>2011</td>
<td>754,667</td>
<td>77,246</td>
<td>55,384</td>
<td>7%</td>
</tr>
<tr>
<td>2012</td>
<td>775,250</td>
<td>85,248</td>
<td>65,345</td>
<td>8%</td>
</tr>
<tr>
<td>2013</td>
<td>777,250</td>
<td>98,821</td>
<td>74,192</td>
<td>10%</td>
</tr>
<tr>
<td>2014</td>
<td>712,500</td>
<td>116,689</td>
<td>89,274</td>
<td>13%</td>
</tr>
<tr>
<td>2015</td>
<td>737,250</td>
<td>139,832</td>
<td>108,144</td>
<td>15%</td>
</tr>
<tr>
<td>2016</td>
<td>730,750</td>
<td>165,741</td>
<td>134,368</td>
<td>18%</td>
</tr>
<tr>
<td>2017</td>
<td>731,250</td>
<td>200,049</td>
<td>161,583</td>
<td>22%</td>
</tr>
</tbody>
</table>

1. Source USDA NASS Farm Labor: average calculated from quarterly employment estimates
2. Source U.S. DOL H-2A Disclosure Data: total number of H-2A positions for the calendar year
3. Source U.S. Department of State Non-Immigrant Visa Statistics

2018 Certified H-2A Positions = 262,736*
Note: State-level data are not available in public documents for all States in all years. The States included in the chart had more than 2,500 H-2A positions certified in 2010; Arkansas met this threshold, but lacked data for 2015-17. Dark grey bars represent aggregates where individual State-level data are not identified (fiscal 2005-09).
Table 2. Occupations of Certified Guest Workers

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits &amp; Nuts</td>
<td>58,064</td>
<td>79,963</td>
<td>20,583</td>
<td>18,973</td>
<td>1,594</td>
<td>6,125</td>
<td>13,886</td>
<td>24,320</td>
<td>3,489</td>
<td>6,859</td>
<td>5,272</td>
<td>8,264</td>
</tr>
<tr>
<td>Vegetables</td>
<td>51,431</td>
<td>59,097</td>
<td>7,104</td>
<td>9,625</td>
<td>9,969</td>
<td>7,279</td>
<td>860</td>
<td>751</td>
<td>10,468</td>
<td>12,224</td>
<td>6,570</td>
<td>8,039</td>
</tr>
<tr>
<td>Grains &amp; Row Crops</td>
<td>41,748</td>
<td>44,845</td>
<td>2,965</td>
<td>5,372</td>
<td>15,869</td>
<td>12,729</td>
<td>355</td>
<td>663</td>
<td>664</td>
<td>622</td>
<td>59</td>
<td>16</td>
</tr>
<tr>
<td>Other(^a)</td>
<td>28,856</td>
<td>30,418</td>
<td>2,037</td>
<td>5,414</td>
<td>2,063</td>
<td>5,167</td>
<td>7,542</td>
<td>2,632</td>
<td>269</td>
<td>586</td>
<td>224</td>
<td>367</td>
</tr>
<tr>
<td>Meat &amp; Dairy</td>
<td>9,827</td>
<td>10,314</td>
<td>8</td>
<td>13</td>
<td>0</td>
<td>1</td>
<td>33</td>
<td>25</td>
<td>4</td>
<td>0</td>
<td>421</td>
<td>426</td>
</tr>
</tbody>
</table>

Notes: These data are from the U.S. Department of Labor (2018).
\(^a\) Workers under the category “Other” perform a variety of farm activities ranging from general farm, nursery, greenhouse, Christmas trees, agricultural equipment operators, ..., grass turf work.

Source: Luckstead and Devadoss, 2019
Labor Summary

• *Agricultural workers less available and more expensive*

• Producers turning to the H-2A program

• Outlook depends on macroeconomic conditions and political action
Other Production Trends
Production Expenses

Selected farm production expenses, 2018-19F

- Feed purchases
- Labor
- Property taxes/fees
- Livestock/poultry purchases
- Fertilizer
- Seed purchases
- Interest
- Net rent
- Pesticides
- Fuel/oil

Note: F = forecast.
Data as of August 30, 2019.
Production Values

Expected crops sales changes 2018-2019:

- Vegetables and melons: ↑
- Fruits and nuts: ↑
- Other crops (tobacco, sugar, greenhouse, and nursery crops): ↑

Sources: Dr. Elizabeth Canales / USDA-ERS
Specialty Crop Production

USDA forecasts over the next 10 years:

• 2.7% (annual) increase in value of production per year
  – Mostly due to higher prices

• 0.5% (annual) increase in production
  – Citrus production in decline
  – Tree nut production increasing
Fruit and Vegetable Demand

Sources: Dr. Elizabeth Canales / Bureau of Labor
Other Considerations

• Growth of hemp and related products
  – Potential oversupply?
  – Legal issues

• Trade war and government assistance
  – Policy affects planting and harvesting decisions
  – Price variation
  – Supply chain management
Summary

• Expansion in fruit and vegetable market
  – Especially in fresh market
  – Particularly relevant to Florida

• Increasing labor and feed expenses

• Real estate values steady, with regional variation
Questions?

Food and Resource Economic Department (FRED)

/fred.ifas.ufl

@UF_IFAS_FRED