Hooverville, Sacramento, Calif.
One of Hooverville's better residences.
Overview of the History of California Agriculture

• Wheat Production of the 1850’s-1900
• The Great Transition, 1890-1914
• Rise of Cotton
The Californian Model

- Domar Model
- Myth of Midwestern Farms
- California’s “Exceptionalism”
Contract Labor

• Chinese Period
• Japanese Period
• Mexican Period
• Filipino Labor
• Hindustanis Labor
The Economic Ladder v.s. The Agricultural Ladder

• The Agricultural Ladder of the Midwestern Farm Model
Japanese Migration Flows to the Continental United States

- Immigration
- Emigration

Gentlemen's Agreement
California Alien Land Acts
California Tomato Industry: Average Acreage
1940-1978

Tomato harvester
TABLE 4

Agricultural Employment in American South

<table>
<thead>
<tr>
<th></th>
<th>Number Employed (in 1000s)</th>
<th>Percentage Decline</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Workers</td>
<td>4104</td>
<td>2192</td>
<td>1340</td>
<td>47</td>
<td>39</td>
</tr>
<tr>
<td>Hired Workers</td>
<td>1219</td>
<td>902</td>
<td>535</td>
<td>26</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>5328</td>
<td>3094</td>
<td>1875</td>
<td>42</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: Calculated from USDA, Farm Labor, Annual Summary, for years 1950-1970
Figure 1: Farm Population and Number of Farms

Source: alo.a.19.1, alo.a.1.1, alo.a.2.1, alo.21.1
Figure 2: American Farmland Trends

Sources: alo.a.2.4 and alo.a.2.7
Figure 1A: Acreage of Major Crops, 1866-1995

Sources: alo.d.????
Figure 2: Acreage of Harvested Crops, 1910-90

Source: alo.d.1
Figure 3. Agricultural Exports and Imports, Value in 1992 dollars

Source: ALO.B.6.1 and ALO.B.6.3 divided by some undisclosed price index
Composition of Agricultural Input, 1910-1990

Source: ALO.C.Fig.2
Acreage of Harvested Crops Used to Feed Horses and Mules

Sources: alo.d.1.1 and alo.d.1.3
Yields by Crop, 1866 - 1997

Source: ALO.C.Fig.3
Livestock Yields, 1924 - 1997

Source: ALO.C.Fig.4
Land and Labor Productivity in Agriculture, 1910 - 1990

Source: ALO.C.Fig.5
Range of growth rates of MFP (percent per annum) with number of states in brackets:

- 2.461 to 3.240 (8)
- 1.964 to 2.461 (8)
- 1.813 to 1.964 (8)
- 1.650 to 1.813 (8)
- 1.430 to 1.650 (8)
- 0.790 to 1.430 (8)

Source: ALO.C.Fig.6
Wheat Harvested

Thousands of bushels

Source: alo.d.6.2
Acres of Wheat Harvested

Source: alo.d.6.1
Price of Wheat per Bushel
( Constant 1982-84 dollars )

Sources: alo.d.6.3 divided by phl.b.1.1
Figure 1. Real Prices Received by Farmers

Source: Historical Statistics, Agricultural Statistics
USDA index, calendar years, deflated by GDP price deflator
Thinking about Technological Change

• Counterfactual Worlds
• Threshold Models
  – fixed vs. variable costs
• Induced Innovation
Stylized Past

Pre-1940  Age of Mechanical Innovation
Post-1940  Age of Biological Change
US Wheat Yields
## Durum Wheat Yields

<table>
<thead>
<tr>
<th>Year</th>
<th>Yield per Acre (Bushels)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1942-1951</td>
<td>14.5</td>
</tr>
<tr>
<td>1952</td>
<td>9.7</td>
</tr>
<tr>
<td>1953</td>
<td>6.2</td>
</tr>
<tr>
<td>1954</td>
<td>3.0</td>
</tr>
<tr>
<td>1958</td>
<td>23.8</td>
</tr>
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</table>
Threshold Model