FARMWORKER HOUSING ASSESSMENT FOR THE 2014 UC DAVIS SOLAR DECATHLON TEAM

SOCIAL & SPATIAL CONSIDERATIONS

Kristen Denninger Snyder
Kelsey Meagher

September 29, 2014
FARMWORKER DEMOGRAPHICS

- Around 350,000 farmworkers in California (1 million total in U.S.)
- 96% of farmworkers in CA were born in Mexico.
  - 20% of these workers are from regions in Mexico where indigenous languages are spoken.
Majority of CA farmworkers are men (73%).
59% of farmworkers are married.
Around half (54%) of all farmworkers are parents.
  95% of mothers live with their children.
  62% of fathers live with their children.
Farmworkers have an average of 2 children.

FARMWORKER DEMOGRAPHICS

- Median age of farmworkers is 34.
FARMWORKER DEMOGRAPHICS

- Half of all farmworkers do not have legal authorization to work in the U.S.
- 30% of farmworkers are U.S. citizens.
- 20% possess green cards or other forms of authorization.
- Most farmworker households have mixed immigration status.
Migration patterns of hired farmworkers, 1991-2009

Note: Values for each year are rolling averages of three years of data to smooth fluctuations. For example, the figures for 2009 are 2007-2009 averages.
Source: USDA-ERS analysis of National Agricultural Workers Survey data.
FARMWORKER DEMOGRAPHICS

• Today, most farmworkers live in cities.

• Less than 4% of farm owners provide housing for seasonal employees.

• Farmworkers often share dwellings with non-family members.

• Overcrowding is a critical challenge.
  • 50% of CA farmworkers live in crowded housing.
  • 25% of dwellings are considered “extremely crowded.”
FARMWORKER DEMOGRAPHICS

Type of Dwelling Inhabited by California Farmworkers

- **62%** Single-Family Home
- **29%** Apartment
- **6%** Mobile Home
- **2%** Dormitory or Barracks
- **1%** Duplex or Triplex

Source: National Agricultural Workers Survey, 2004
FARMWORKER FAMILIES & UNACCOMPANIED WORKERS

- Over half (57%) of all migrant crop workers are unaccompanied.
- 43% of migrant crop workers live with parents, spouses, or children.
FARMWORKER FAMILIES & UNACCOMPANIED WORKERS

• Among farmworker families, both parents are usually employed.
• Key concerns for farmworker families include safety, privacy, and proximity to social services (e.g., childcare and schools).
FARMWORKER FAMILIES & UNACCOMPANIED WORKERS

• Undocumented, unmarried men from Mexico are most likely to be *unaccompanied workers*.

• Unaccompanied workers have a harder time finding housing than farmworker families. They consistently live in the worst housing conditions.

• Housing for unaccompanied workers should be flexible & sturdy enough for transient occupants, provide ample privacy for many unrelated individuals, and include ample storage space.
INFORMANT-INSPIRED DESIGN CONSIDERATIONS

1. Affordability & accessibility should be a top priority.

2. Design a structure that respects farmworkers rather than stigmatizes them.

3. Design flexible housing for different types of households.

4. Design comfortable outdoor spaces with ample shade.

5. Create a clear separation between indoor & outdoor spaces, with an area to transition between them.

INFORMANT-INSPIRED DESIGN CONSIDERATIONS

7. Design for large households.

8. Provide residents with a large kitchen and room for a garden.

9. Design for the community, not just the individual household.

10. Provide residents with a garage and a place to work on their car.

11. Design for intensive laundry needs.

12. Design with the local community in mind.
SPATIAL ANALYSIS

• **Purpose**
  - Improve understanding of demographics, environmental conditions, and structural aspects of current farmworker housing
  - Contribute relevant findings to design process in order to improve upon current conditions

• **Methods**
  - Satellite imagery analysis in a GIS at multiple scales representing a range of housing scenarios
    - Small scale – position within broader landscape
    - Large scale – structure and arrangement of housing and immediate surroundings

• **Range of conditions:**
  - State managed:
    - Office of Migrant Services housing
  - Privately managed:
    - Reservation land (not regulated)
    - Private land
      - Permitted housing provided by farm owners
      - Unpermitted trailer parks / housing on private land
STATE OMS CENTERS

• Two primary scenarios
  • External – Positioned outside of city limits
    • Artesi II
    • Arvin
    • Davis
    • Watsonville
      Average Euclidean (straight-line) distance: 2.3 mi
      Average network (road) distance: 2.7mi
  • Contained – Positioned along city edge
    • King City
    • Parlier
Site boundary

Major features
King City OMS Center

Landscape

Urban location
PRIVATE HOUSING

• Three scenarios
  • Reservation land
    • 70th Ave
  • Private land – permitted housing provided by farm owner
    • 57th Ave
  • Private land – housing provided landowner/unpermitted trailer parks
    • Cherry Tree Lane Trailers
    • Rancho Garcia
    • St. Anthony Trailer Park
    • Las Cabinas de los Campos

Average Euclidean distance: 3.2mi
Average network distance: 3.6mi
Site boundary

Major features
Unofficial MFW Housing: 57th Ave

Landscape

Unofficial MFW Housing: 57th Ave

Urban route
Site boundary

Major features
Site boundary

Major features
DESIGN CONSIDERATIONS

• Air quality
  • Pesticide drift
  • Dust
• Community space
• Site fluidity / lack of structural permanence