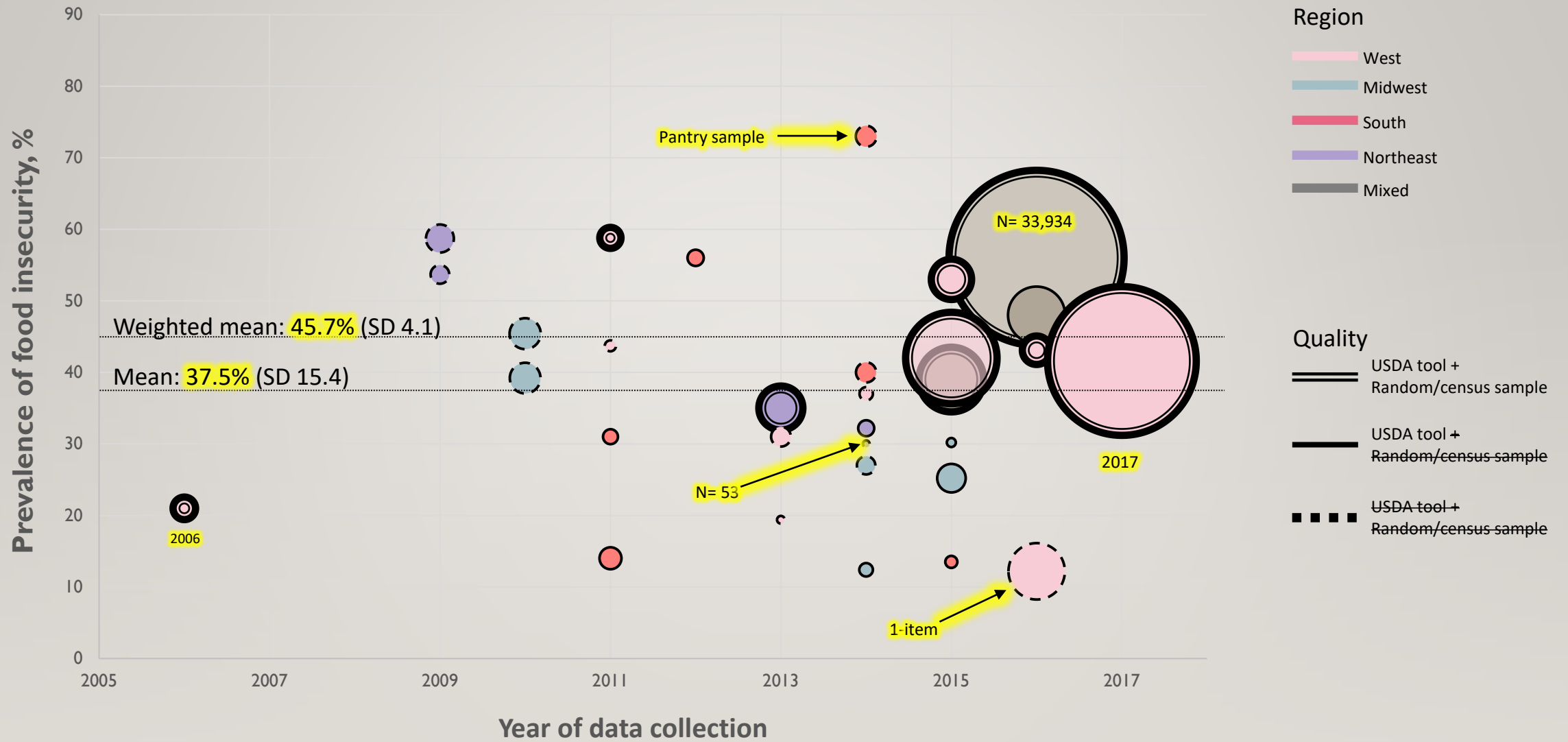


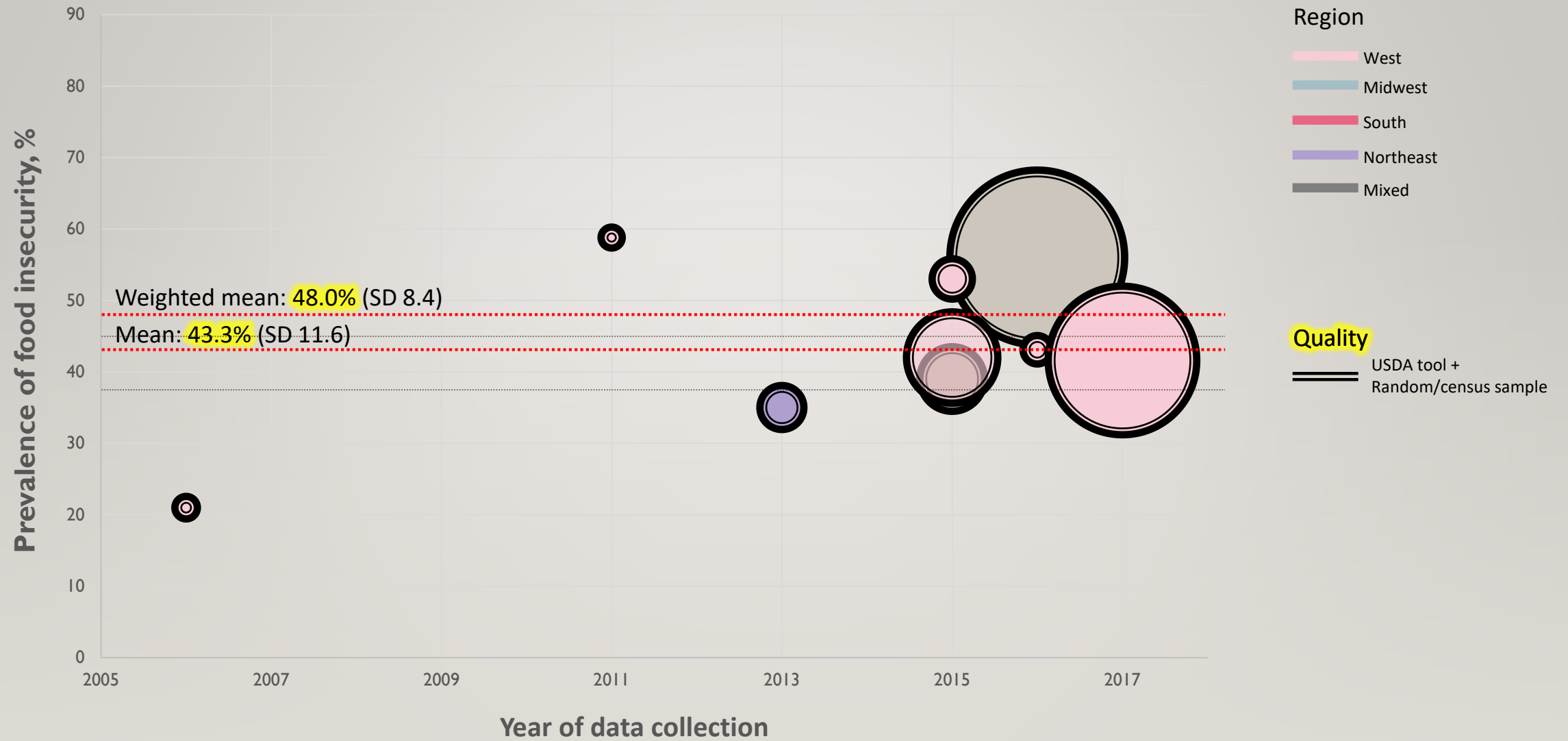
THE RESEARCH TALK

ASSESSING FOOD INSECURITY IN COLLEGE SETTINGS: STATE OF THE SCIENCE

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2018 CSU Basic Needs Conference







OBJECTIVES

- Key concepts in college food insecurity research
- Critically evaluate approaches to:
 - Study design
 - Assessment methods
- Describe best practices
- Suggest needs & avenues for innovation
- Case studies

HAVE YOU EVER WONDERED...

- “What are the best food insecurity survey questions?”
- “How do I design a good quality study?”
- “When reading a study, how do I know if it’s good?”
- “How can I sound like I know what I’m talking about at the reception tonight?”

I. STUDY DESIGN: LOW-HANGING FRUIT

- **Cross-sectional (prevalence) studies** are the most common!
 - + Easy, cheap, relatively quick
 - + Provides fundamental knowledge
 - + Can inform agenda
 - Difficult to ensure representative sampling (i.e. who participates?)
 - Can't answer the chicken or the egg?
- Can help answer:
 - How many CSU students experience food insecurity? 42%
 - Which students might be at risk?

I. STUDY DESIGN: LOOKING UP

- **Longitudinal (observational) studies** can follow students and their risk over time
 - + Can assess dynamics of collegiate economics, jobs, internships, housing, term vs. break issues, social factors / relationships
 - + Need to ask the right questions, in the right ways to monitor change (see *Assessment Methods*)
 - Expensive
- Can help answer:
 - When / how does risk begin? Among whom?
 - How does food insecurity impact academics / graduation?
 - Where can we intervene? Which types of interventions may be most effective?

I. STUDY DESIGN: LONGITUDINAL POSSIBILITIES

Exposures	Outcomes	Other relevant factors
Food spending/life on a budget	Cognition, ability to learn	Family SES
Existing, previous risk	Physical health: Diet, weight	Race/ethnicity/gender identify
Jobs & internships: Time/money	Mental health: Depression, anxiety	Economic skills
Social support, resources	Academic outcomes, graduation	Coping strategies
Impact of extra-curriculars	Employment after college	Food, shopping, cooking skills
Timing of risk factors, e.g. economic shock	Longer-term economic consequences	University resources

I. STUDY DESIGN: IDENTIFYING WHAT'S EFFECTIVE

- **Experimental studies** (including quasi-/natural) are more powerful
 - + Allows you to test the effect of interventions and programs
 - + Randomized & controlled when possible (Ethical quandary?)
 - Expensive
- Can help answer:
 - What is the impact of interventions? (Pantry use / CalFresh / other programs)
 - How did intervention groups differ from controls?
 - Did students receiving this program do better compared to those who did not?
 - Relative impact of food vs. academic vs. social or economic factors?

2. ASSESSMENT METHODS: CURRENT BEST PRACTICE

- USDA ERS survey tools (10- and 6-item)
 - Standardized & validated at the household level
 - Can ask about the past 12 months or past 30 days
 - 12-month rate > 30-day rate
- Survey questions
 - May be reasonable for college populations (not validated or standardized)
 - Timing: Students operate academic year calendar
 - Tuition fees, aid disbursements, housing, jobs/internships, work study
 - How can we account for this?*

USDA ERS QUESTIONS: 10 VS 6 ITEM

10-item	6-item
Worry about food running out	<i>(Marginal food security missed)</i>
Food didn't last	Food didn't last
Couldn't afford balanced meals	Couldn't afford balanced meals
Cut size of or skip meals (+ how often)	Cut size of or skip meals (+ how often)
Eat less than you should	Eat less than you should
Were you ever hungry	Were you ever hungry
Did you lose weight	<i>(Very low food security missed)</i>
Not eat for a whole day (+ how often)	<i>(Very low food security missed)</i>

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2. ASSESSMENT METHODS: ALTERNATIVES

- Adapted USDA versions & others
 - 4-item: e.g. CUNY used 'worry', 'skip meals', 'balanced meals', and 'hungry' items (45%, 12m)
 - 2-item: e.g. UC used 'worry' and 'food didn't last' items (44%, Undergrad, 12m)
 - 1-item: e.g. CCEAL used 'have you ever experienced hunger?' to intentionally capture acute situations (12.2%, 2y)
- + Good: Yields some quantitative data, easy to implement, but...
- Bad: Not validated, may yield low precision, cannot differentiate ranges or extremes (i.e. all food insecurity categories lumped together)

2. (FUTURE) ASSESSMENT METHODS

- Do we need an assessment tool specific to colleges?
- USDA includes only a 'food' module
 - Additional modules may be helpful in contextualizing the college student experience
 - Academic year timing, housing, meal plans, financial aid, barriers, transportation, economics, social factors, resource availability & utilization, 2-yr vs. 4-yr colleges

2. (NOVEL) ASSESSMENT METHODS: EXAMPLE

- Ongoing RCT at Cal Poly, SLO
- 6-item USDA survey, plus
 - How many years in college
 - Lifetime & current CalFresh use & benefit amount
 - Utilization of campus pantry, food vouchers, campus emergency grants, food bank, others
 - Academic year & timing of food access problems (breaks vs. during term)
 - Post-hoc possibilities: GPA, graduation status

FOOD INSECURITY DATA & COMMUNICATING

- Data collection
 - Quantitative data is necessary
 - Qualitative data adds context, emotion →
- How do you talk about college food insecurity?
 - Sensitive & stigmatized topic
 - Emphasize impact on students (devastating)
 - Depends on audience (University leadership, colleagues, elected officials, press, donors, grant agencies, students)

“

I would get bananas and I will cut it in half. I'd eat only half in the morning, and then I would wait five hours, then eat the other half, just so I have something in my stomach consistently...I would struggle to concentrate for sure, because sometimes that's all I could think about was where was my next meal going to come from. At the same time, I would always push myself to just keep going, just keep going, just keep going.

”

Susan CSUDH

CASE STUDY: UC STUDIES

UNIVERSITY
OF
CALIFORNIA

Cross-sectional results from 3 surveys

	Student Food Access & Security Survey	UC Undergrad Experience Survey	Graduate Well-Being Survey
Population	Undergrad, graduate	Undergrad	Graduate
Sampling	Random	Census	Census
Period	Apr 20-May 29, 2015	Mar 31-Aug 16, 2016	Jan 4-Apr 29, 2016
# Responses	8,932	63,132	6,764
Response rate	14%	33%	50%
Food Insecurity tool	6-item	2-item	2-item
Food Insecurity	48% UG 25% Grad } 42% Total	44%	25%

CSU & UC STUDIES

	CSU Study (23-campus)	UC Study (11-campus)
Study design	Cross-sectional	Cross-sectional
Sampling strategy	Census	Random
Response rate	6%	14%
N students	24,537	8,932
FI assessment tool	10-item (30 day)	6-item (12 month)
Other variables measured	Qualitative data (n=213), demographics, first gen status, homelessness, physical & mental health, GPA, 'academic concerns'	Barriers, consequences, childhood history of food insecurity, mental health, GPA, diet, receiving financial aid
Prevalence rate	42%	42%

ACTIVITY!

Designing 'modules' & questions for college food insecurity research surveys

- How do we contextualize college food insecurity?
- What do we need to know about students' lives and experiences to adequately investigate and address this problem?
- Which questions would you ask and Why?