

The Dynamics of Food Insecurity in Rural America: Are There Regional Differences?



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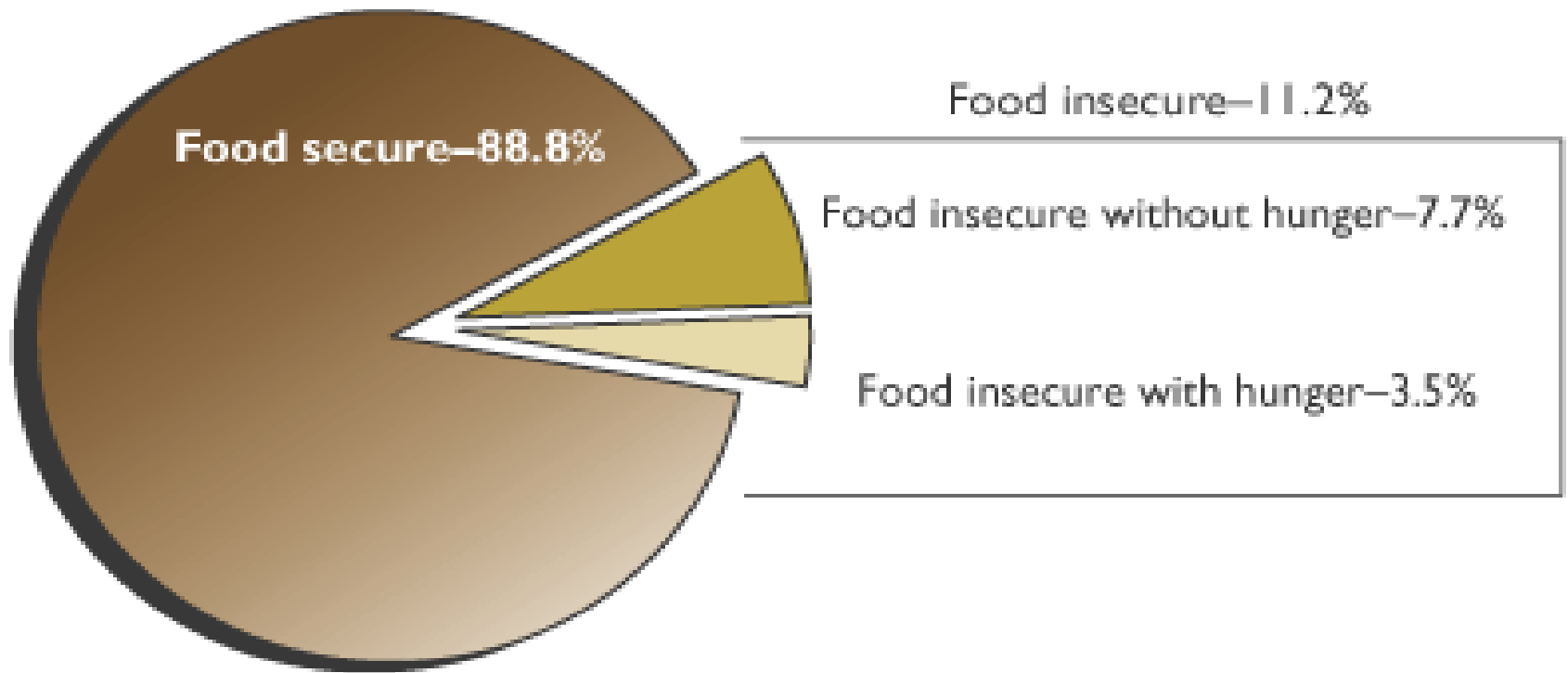
Definition of Food Insecurity

- Food Insecurity exists “whenever the availability of nutritionally adequate and safe food or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain.”
- Hunger is “the painful or uneasy sensation caused by lack of food.”

Anderson, 1990, p. 1560

Prevalence of Food Insecurity from CPS

U.S. households by food security status, 2003



Purposes of Study

- ❑ To examine regional differences in the changes from 2000-2002 in the prevalence of food insecurity in a sample of rural poor families with children;
- ❑ To identify factors associated with change in food insecurity across time.

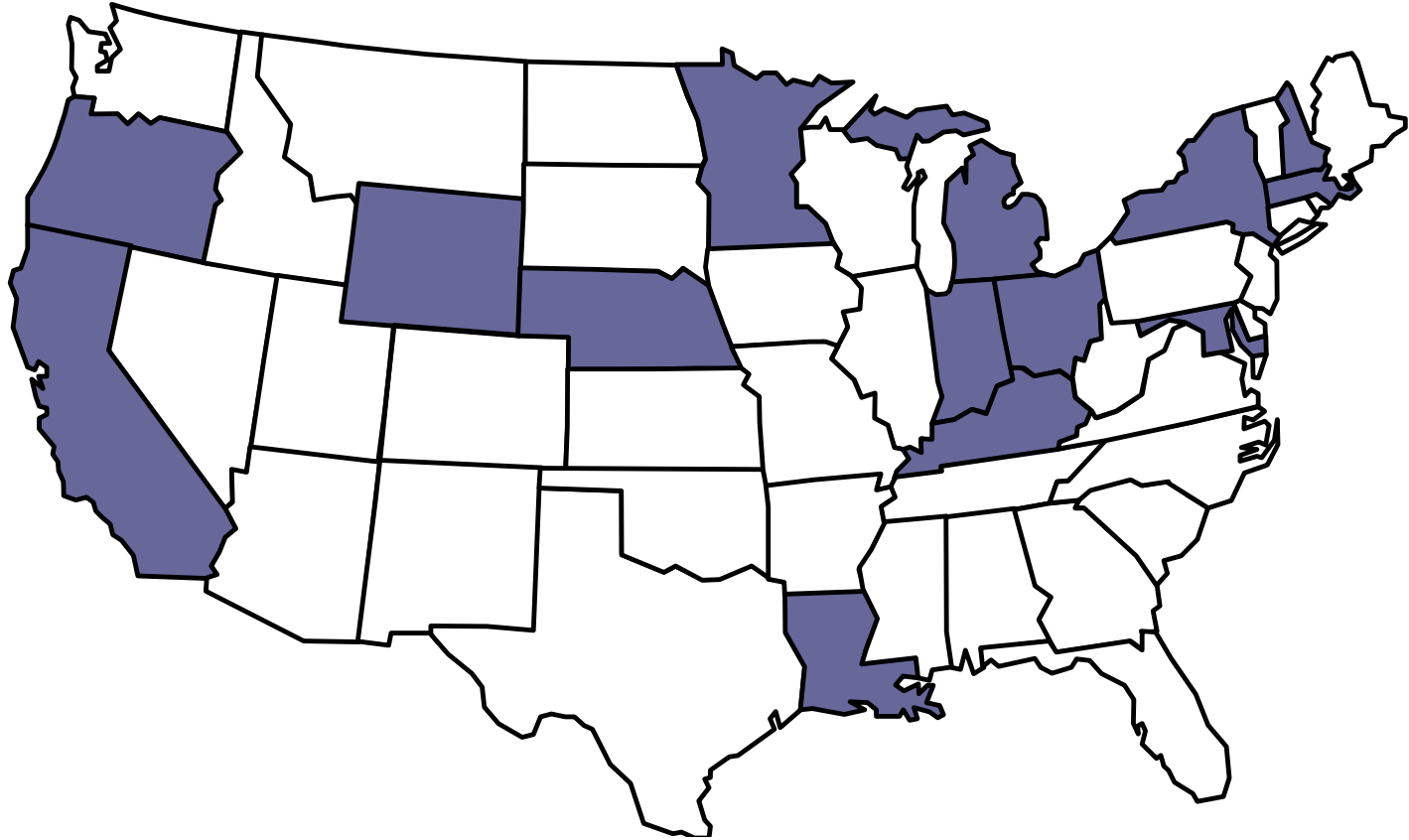
NC-223 Multi-State Research Project

Rural Low-Income Families: Tracking their Well-Being and Functioning in the Context of Welfare Reform

Overall Purpose

- ▣ Measure changes over time in the well-being of rural people and communities in context of PRWORA (1996 Personal Responsibility and Work Opportunity Reconciliation Act)

Participating States (N = 14) in Blue



Study Design

- Longitudinal study
 - October 1, 1998 - September 30, 2003
 - 3 waves of data collection
- Interview 30 low income families in one or two rural counties
 - Families with income <185% PIR
 - Child < 12 yrs (preference < 5yrs)

Methods of Data Collection

- Qualitative interviews of 1 - 2 hours focusing on:
 - Living in the Community
 - Work History
 - Family of Origin
 - Family Well-Being
 - Parenting
 - Social Support

Methods of Data Collection

- Quantitative data collected within context of qualitative interview on:
 - Knowledge of community resources
 - Life skills- food and financial
 - Depression – CES-D
 - Support for Parenting
 - Health – Index of 16 chronic conditions
 - Food security (US Household Food Security Survey Module)

Sizes of the Two Samples

- Initial sample = 422 rural families with children
- Longitudinal sample = 193 families from 11 states who retained at least 50% of families

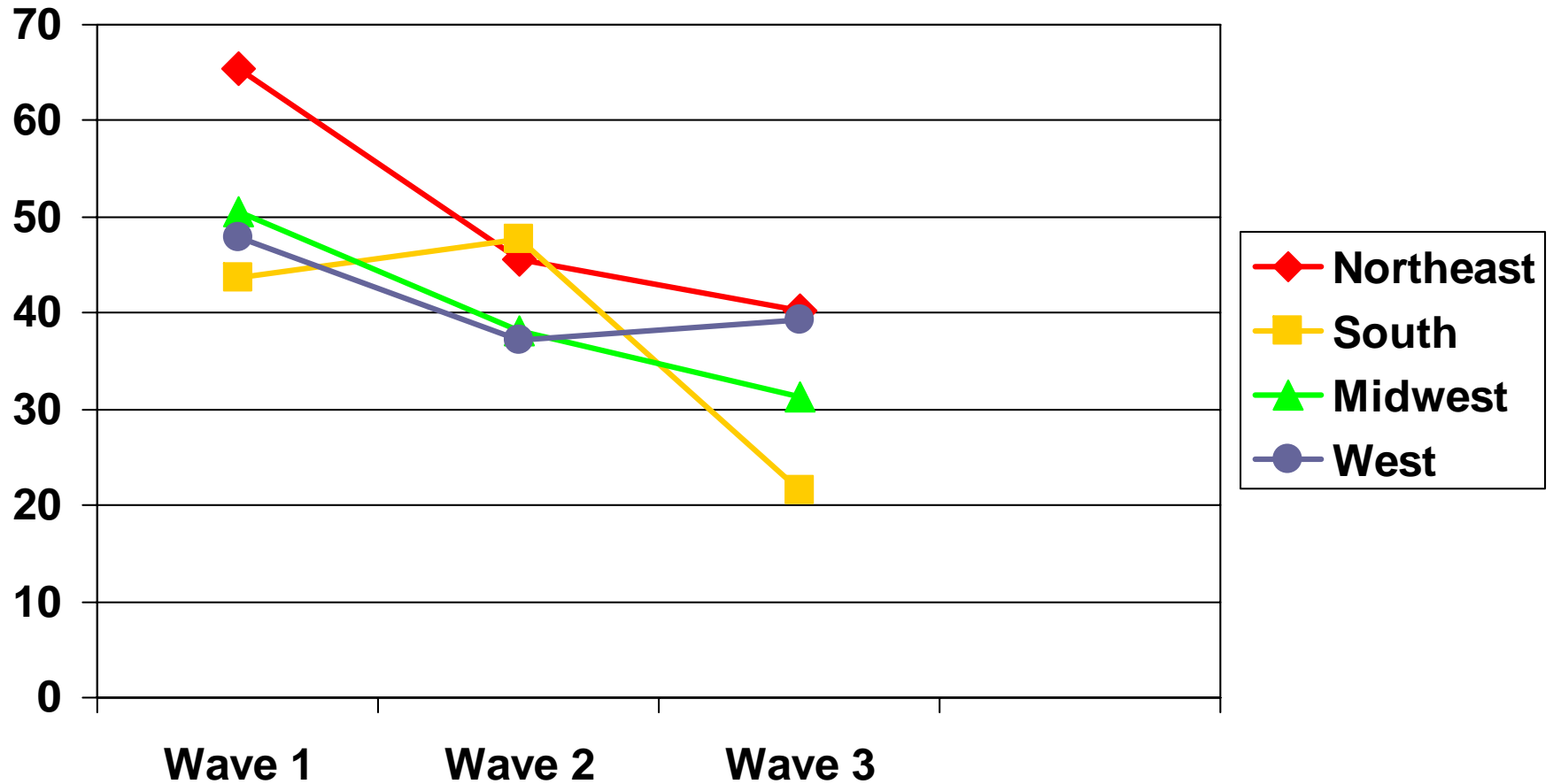
Socio-demographic Characteristics of Initial Sample

Characteristics	N (%)	% F Insecure
Ethnicity		
Non-Hispanic White	221 (69.9%)	53.8%
Hispanic/Latino(a)	54 (17.1%)	48.1%
African-American	23 (7.3%)	17.4%
Other	18 (5.7%)	33.3%
Education		
High School or Less	182 (57.6%)	55.0%
Education Beyond H School	134 (42.4%)	41.0%
Percent of Poverty Line		
< 100%	202 (63.9%)	50.0%
≥ 100% and < 130%	58 (18.4%)	46.6%
≥ 130% and < 185%	39 (12.3%)	41.0%
≥ 185%	17 (5.4%)	64.7%
Region		
East	68 (21.5%)	66.2%
South	64 (20.3%)	34.4%
Midwest	111 (35.1%)	46.0%
West	73 (23.1%)	50.7%

Proportion of Households, Food Secure and Food Insecure by Region and Wave

	Food Secure, % (n)	Food Insecure, % (n)	p-value
Wave 1 (1999-2000)			0.006
Northeast	34.5 (29)	65.5 (55)	
Other regions	52.2 (107)	47.8 (98)	
Wave 2 (2001)			0.454
Northeast	54.5 (36)	45.5 (30)	
Other regions	59.9 (103)	40.1 (69)	
Wave 3 (2002)			0.234
Northeast	59.7 (37)	40.3 (25)	
Other regions	68.1 (109)	31.9 (51)	

Proportion of Households in Each Region Who Were Food Insecure by Wave

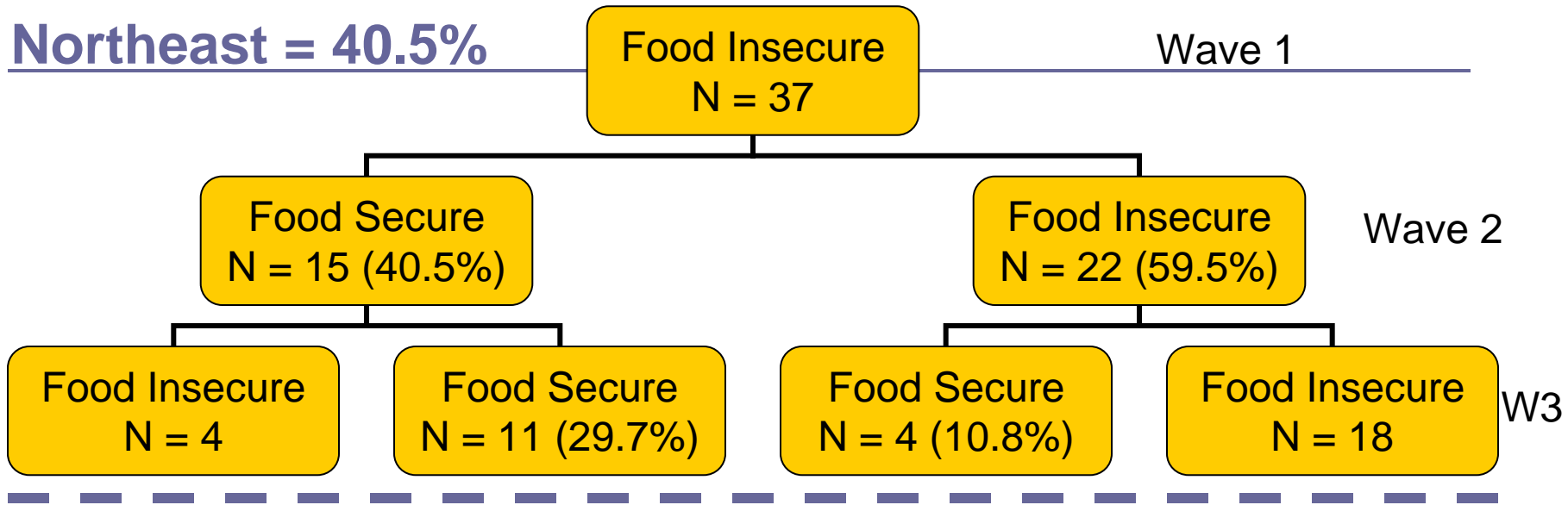


Variables Associated with Escaping Food Insecurity from Wave 1 (2000) to Wave 3 (2002)

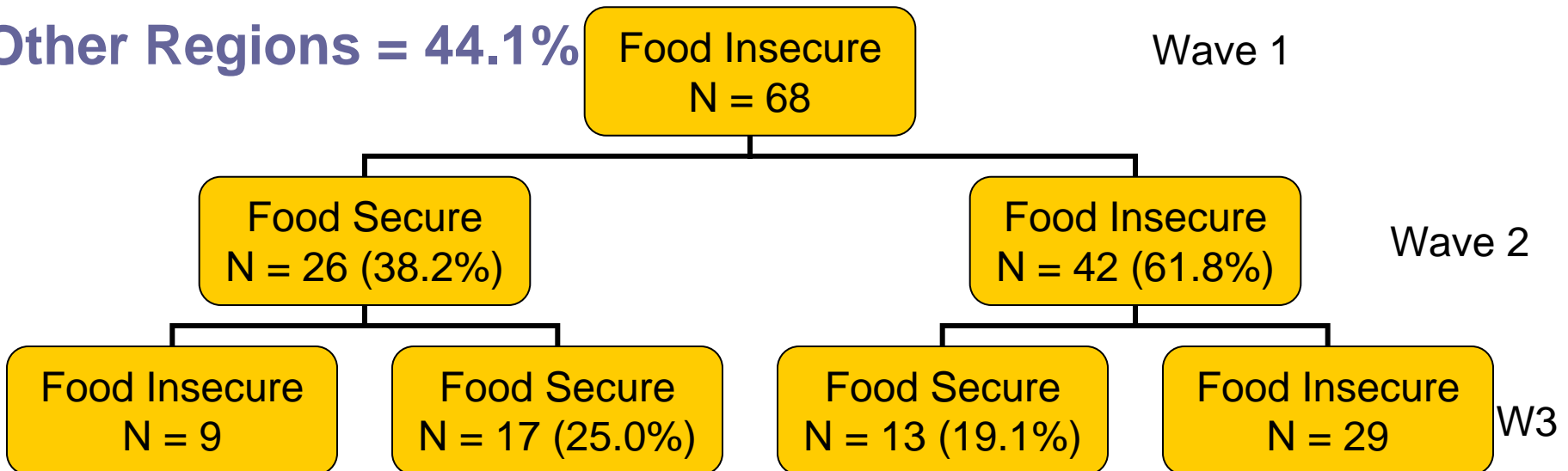
	Remained Food Insecure	Escaped Food Insecurity	p-value
Family of Origin SES	% (n) compared by chi-square analysis		0.04
High	40.0 (10)	60.0 (15)	
Low	63.6 (42)	36.4 (24)	
Earned Income			
> \$2,000	41.4 (12)	58.6 (17)	0.07
\$1,000-\$2,000	59.6 (34)	40.4 (23)	
None	73.7 (14)	26.3 (5)	
	Mean ± standard deviation		
Chronic Health Conditions	2.8 ± 2.6 (60)	1.8 ± 1.4 (45)	0.02
Support for Parenting	23.9 ± 8.3 (59)	26.4 ± 6.4 (43)	0.09

Escaping Food Insecurity over 3 Years

Northeast = 40.5%

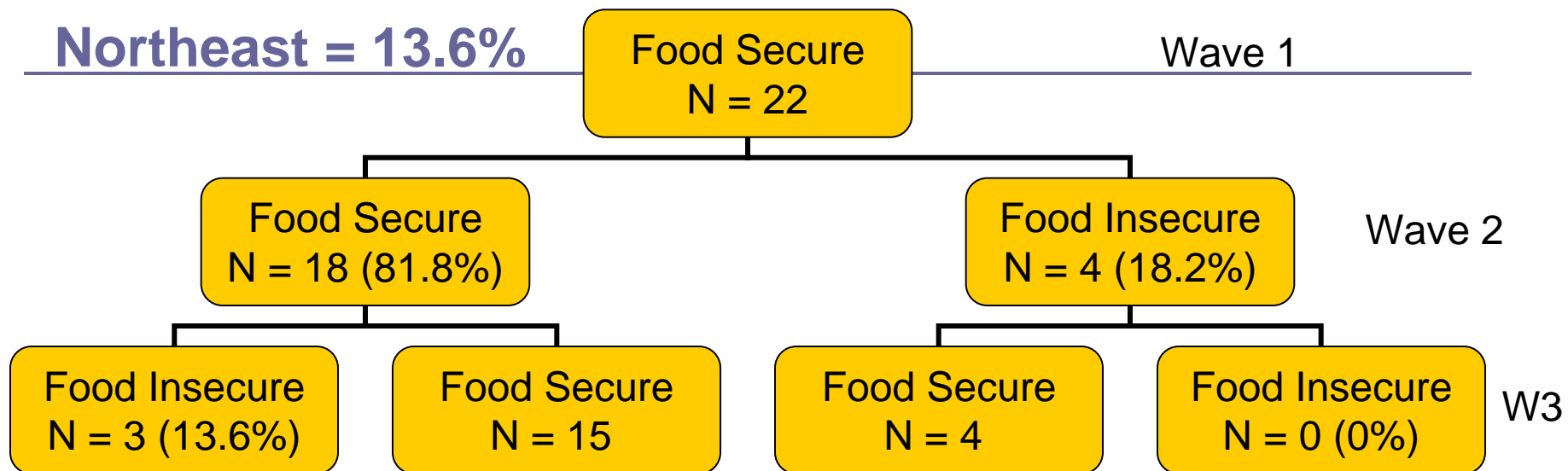


Other Regions = 44.1%

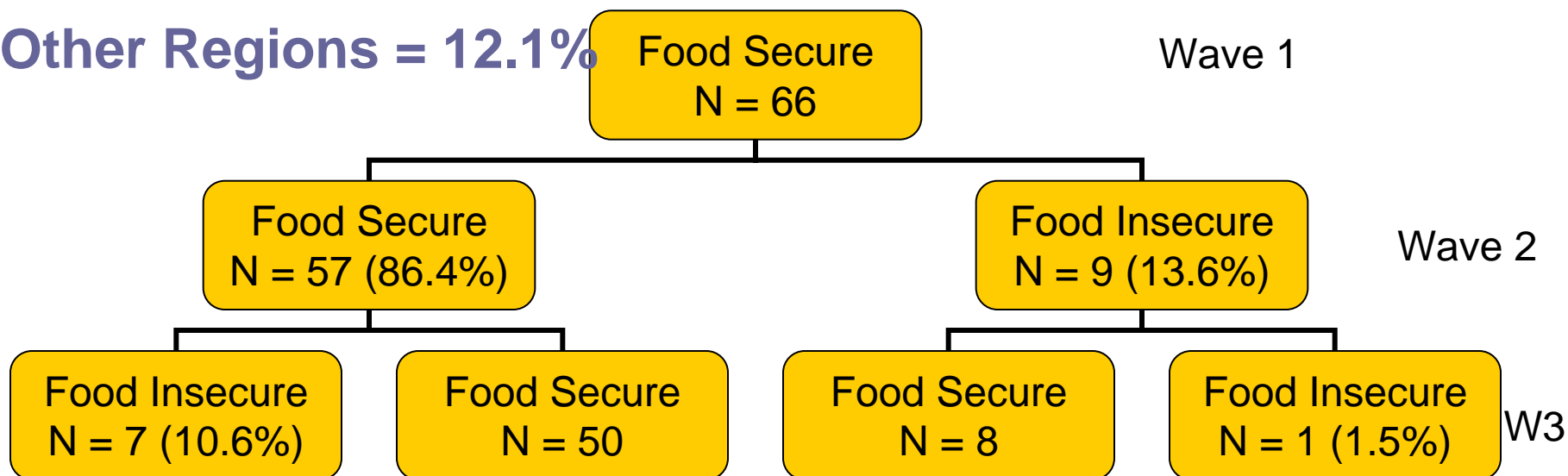


Falling from Food Security over 3 Yrs

Northeast = 13.6%



Other Regions = 12.1%



Significant Predictors ($p < 0.05^*$, $p < 0.01^{**}$) of Food Insecurity, Nag. $R^2 = 0.38$

Risk Factors	% Food Insecure	OR (95% CI)
Chronic Health Conditions Score²	> 1.98, 54.2%	1.12 (0.97, 1.30)
	< 1.98, 44.1%	
Food Life Skills		
Low	83.3%	Reference
Medium	58.6%	0.23 (0.06, 0.85) *
High	42.1%	0.14 (0.04, 0.46)**
Rent or Own Housing		
Own	33.3%	Reference
Rent	57.2%	3.44 (1.57, 7.54)**
Other	39.1%	1.64 (0.64, 4.16)
Problems Paying for Medical Care		
No	42.5%	Reference
Yes	66.1%	3.20 (1.70, 6.05)**
Score on Depression Scale²	> 17.36, 60.4%	1.03 (1.01, 1.06)**
	< 17.36, 40.1%	
Region		
East	66.2%	Reference
South	34.4%	0.28 (0.11, 0.71)**
Midwest	46.0%	0.50 (0.24, 1.05)
West	50.7%	0.63 (0.23, 1.75)

Other variables in model = knowledge of comm. Resources, Food Stamp Program participation, ethnicity, education, eth x ed, %PIR

Findings from Qualitative Analysis

- Bevin's Story, NY 111
- Erin's Story, OH 116

Conclusions

- While there was a difference in the prevalence food insecurity between the Northeast and other regions in the initial wave, this difference did not persist in the other waves.
- Further there were no differences in the change in food insecurity status by region across time.

Conclusions (cont.)

- ❑ Food insecurity is a persistent condition, although approximately 40% of families escaped while 13% fell into food insecurity over 3 years.
- ❑ Human capital factors, particularly poor health, are significant influences on the dynamics of food insecurity in poor rural families with children.

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