



University of Idaho
College of Agricultural
and Life Sciences

Blaine County Cost of Living and Food Security Survey

Hussain Qazaq | Ph.D. Student
Ginny Lane | PhD, RD
Nutritional Science Program
College of Agricultural and Life Sciences

Margaret Ritchie School of Family and Consumer Sciences, University of Idaho, Moscow, USA



University of Idaho
College of Agricultural
and Life Sciences



Introduction

- The USDA defines Food Insecurity (FI) as: “a household-level economic and social condition of limited or uncertain access to adequate food,”¹
- Approximately 14% of Americans² and 13% of Idahoans³ are food insecure.
- High cost of living and inflation of food prices have exacerbated FI^{4, 5}.
- FI is negatively associated with income, education, home ownership, and age⁶.
- FI is positively associated with unemployment, disability, and tax burden⁶.
- Ethnicity, citizenship status, and participation in nutrition assistance programs also impact FI^{6, 7}.
- Food insecurity in Blaine County increased from 9% in 2020 to 12.2% in 2023⁸.

Objectives

- (1) Describe food security in Blaine County, Idaho.
- (2) Identify risk factors associated with FI.

Methodology

- Online survey completed in late 2024
- Sample: 657 Household heads in Blaine County.
- Design: Cross-sectional study with convenience sample.
- Study tool: A pre-tested questionnaire includes socio-economic, and food security questions.
- Moderate to severe food insecurity is indicated by positive responses to both food security questions.
- T-test, and ANOVA were used to detect the differences between scores.
- Chi-square test was used to detect the significance among categorial variables.
- Binary Logistic regression model was applied to predict risk factors of FI.
- Significant difference indicated by p-value < 0.05.

Contact Information

Hussain Qazaq | Ph.D. Student And Ginny Lane | PhD, RD
University of Idaho
Email: QAZA0118@VANDALS.UIDAHO.EDU
VLANE@UIDAHO.EDU
Phone: +1 (514) 441-5884

Results

Table 1 Selected sample characteristics

Sample characteristics	n (%)
Ethnicity (N= 642)	
White, non-Hispanic or Latino	399 (62.1)
Hispanic or Latino	215 (33.5)
Other	28 (4.4)
Gender (N= 633)	
Female	446 (67.9)
Male	187 (29.5)
Age group (N= 651)	
18-30 years	135 (20.7)
31-40 years	170 (26.1)
41-50 years	145 (22.3)
51-60 years	90 (13.8)
61-70 years	71 (10.9)
71+ years	40 (6.1)
Annual household Income (\$) (=645)	
Median	63 k
Mean	78 k
<\$25,000	125 (19.4)
\$26,000-\$50,000	115 (17.8)
\$51,000-\$75,000	84 (13.0)
\$76,000 - \$100,000	90 (14.0)
\$101,000 - \$125,000	62 (9.6)
\$126,000 - \$150,000	54 (8.4)
≥\$151,000	115 (17.8)

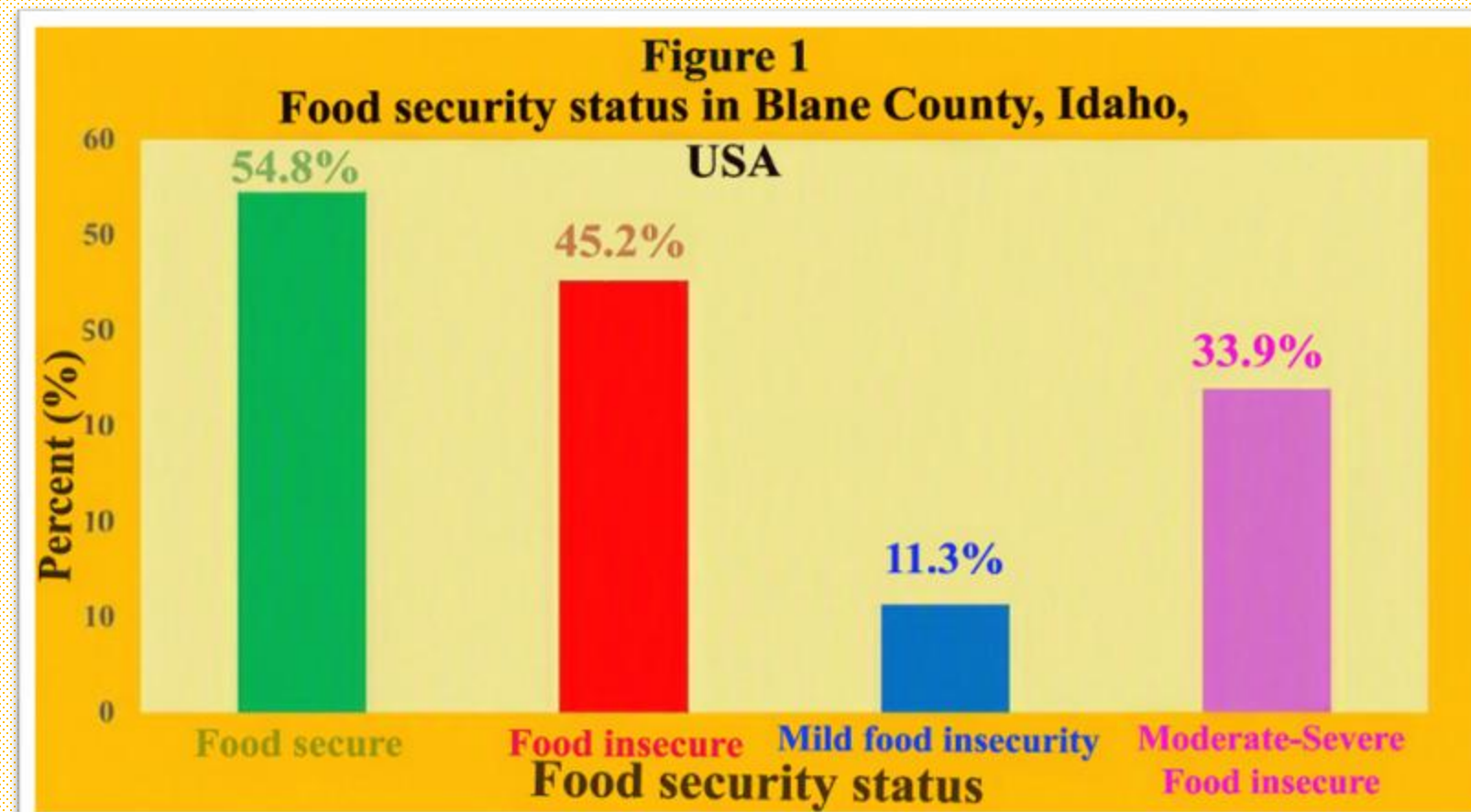


Table 2 Food insecurity Predictors

Variable	Odds Ratio	95% CI	p-value
Ethnicity [Ref.: White]			
Hispanic	10.18	6.92-14.99	0.001
Others	3.11	1.42-6.78	0.004
Gender [Ref: Male]			
Female	0.69	0.49-0.97	0.035
Personal annual income [Ref: <\$29k]			
\$29,400- <\$35,250	0.57		0.047
\$35,250- <\$47,000	0.34		0.001
\$47,000- <\$58,750	0.18		0.001
\$58,750- <\$70,500	0.10		0.001
\$70,500- <\$82,250	0.06		0.001
>\$82,250	0.2		0.001
Legal work status [Ref: Legal]			
Not legal work status	4.98	2.54-9.76	0.001
Employment status [Ref: Full-time]			
Part-time	3.41	2.17-5.37	0.001
Not employed but seeking job	12.90	6.17-26.91	0.001
Not employed but Not seeking job	2.80	1.19-6.54	0.018
Retired	0.26	0.11-0.58	0.001
Personal debt [Ref: Yes]			
No	0.45	0.32-0.64	0.001
Current housing [Ref: Rent]			
Own	0.13		0.001
Living in RV or camp	4.12		0.01
Homeless	1.14P		0.82
Other	0.54		0.047
Monthly food pantry visits[Ref: 0]			
1-2 visits	13.83	9.16-20.86	0.001
3-4 visits	15.55	7.15-33.83	0.001
Receiving WIC benefits [Ref: Yes]			
No	0.25	0.16-0.39	0.001

Conclusions

- About half of the population (45%) in Blaine County are food insecure.
- About 11% experience mild food insecurity, while 34% experience moderate or severe food insecurity.
- Risk factors of food insecurity include being Hispanic, male, low personal annual income, lack of legal work status, personal debt, transient housing, visits to food pantries, and receiving WIC assistance.

Discussion

- The prevalence of FI was 45%; much higher than Blaine county overall⁸ (12%), Americans² (14%), and Idahoans³ (13%).
- Similar to other studies, ethnicity, personal and household income, gender, debt, legal work status, employment and use of food pantry predicted FI^{6, 7, 9, 10, 11, 12, 13, 14}.
- The population most at risk of food insecurity in Blaine county are Hispanic and unemployed individuals, and those without legal work status.
- Current policy for government food assistance programs may be exacerbating the FI challenge.

Implications

Research

- Use longitudinal, and more representative sample to explore causes of food insecurity.

- Study barriers facing Hispanics and immigrants.

Policy

- Expand SNAP, WIC, and food assistance outreach to high-risk groups
- Address how work authorization status affects access to food assistance programs.

Disclaimer

The contents and findings of this poster are those of the authors and do not represent the official views of the Centers for Disease Control & Prevention or Department of Health and Human Services.

References

- US Department of Agriculture, Economic Research Service. Definitions of food security. <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>
- https://www.uwpmw.org/alice_in_pnw
- Nagata, J.M., Palar, K., Gooding, H.C. et al. (2019). Food Insecurity and Chronic Disease in US Young Adults: Findings from the National Longitudinal Study of Adolescent to Adult Health. *J GEN INTERN MED*. 34, 2756–2762 <https://doi.org/10.1007/s11606-019-05317-8>
- Blessing, et. al. (2022). Food Inflation in the United States: A Data-Driven Approach to Understanding and Mitigating Rising Costs. *Sch Acad J Pharm*, 9 (12): 291-305.
- Waxman, E. (2012). The Costs and Impacts of Rising Food Prices Among Low-Income Households. *Journal of Food Law & Policy*, 8(1), 213. <https://doi.org/10.54119/jflp.rvjn7504>
- Leitz, Destiny (2018). "Identifying the Risk Factors for Food Insecurity in the United States." *Major Themes in Economics*, 20, 49-71. <https://scholarworks.uni.edu/mtic/vol20/iss1/4>
- Berkowitz, S., et al. (2024). Understanding food insecurity risk in the United States: A longitudinal analysis. *SSM - Population Health*, 25: 101569
- Hunger & Poverty in Blaine County, Idaho: Map the Meal Gap*
- Chang, Y., et. al (2014). Household Finance and Food Insecurity. *J Fam Econ Iss* 35, 499–515 <https://doi.org/10.1007/s10834-013-9382-z>
- Mackenzie, B. (2020). Household Debt and Children's Risk of Food Insecurity. *Social Problems*, 67(3), Pages 565–584. <https://doi.org/10.1093/socpro/spz027>
- Safarpour, M., et. al. (2014). Prevalence and Outcomes of Food Insecurity and Its Relationship with Some Socioeconomic Factors. *Knowledge & Health*, 8(4):193-198
- Bocquier A., et al. (2015). Socio-economic characteristics, living conditions and diet quality are associated with food insecurity in France. *Public Health Nutrition*, 18(16):2952-2961. doi:10.1017/S1368980014002912
- Hameed, A., et al. (2020). Estimating the Socio-Economic Factors of Food Insecurity in Pakistan: A Regional Level Analysis. *FWU Journal of Social Sciences*, 14(2), pp. 81-94.
- SOUZA et al. (2016). Demographic and socioeconomic conditions associated with food insecurity in households in Campinas, SP, Brazil. *Rev. Bras. Nutr*, 29(6):845-857



University of Idaho
College of Agricultural
and Life Sciences



MARGARET RITCHIE
SCHOOL OF FAMILY AND CONSUMER SCIENCES
Celebrating the Science of Living Well
UNIVERSITY OF IDAHO