

Exploring the use of glean programs in supplementing school meals

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Objectives

1. Explain the purpose of glean programs.
2. Identify research needs regarding potential partnerships between gleaning programs and child nutrition programs.



Outline

1. Food Insecurity
2. Food Waste
3. A Brief History of Child Nutrition Programs
4. Glean Programs
5. Potential Impacts and Applications
6. Steps Forward

Food Insecurity

According to the USDA (2020a) definition, food insecurity is the “household-level economic and social condition of limited or uncertain access to adequate food.”

Ranges of food security/insecurity:

- Food security:
 - High food security
 - Marginal food security
- Food insecurity:
 - Low food security
 - Reduced quality, variety, or desirability of diet.
 - Little to no change in overall food intake.
 - Very low food security
 - Disrupted eating patterns.
 - Reduced food intakes.

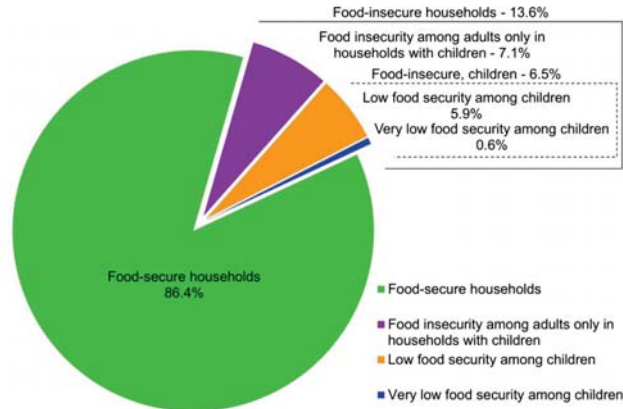


(USDA, 2020a)



Food Insecurity

U.S. households with children by food security status of adults and children, 2019



Note: In most instances, when children are food insecure, the adults in the household are also food insecure.
 Source: USDA, Economic Research Service, using data from the December 2019 Current Population Survey Food Security Supplement.

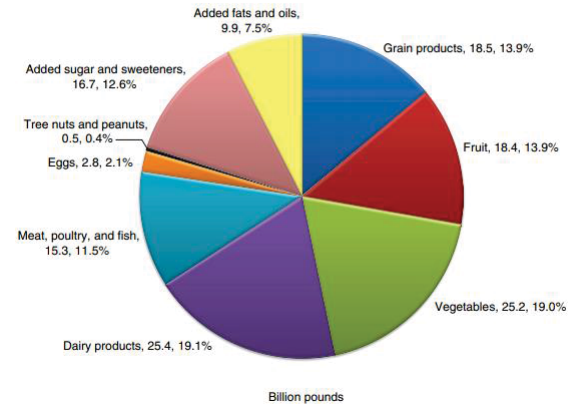
(USDA, 2020b)



Food Waste in the United States

Figure 1
 Estimated total amount of food loss in the United States by food group, 2010

In 2010, an estimated 31% (133 billion pounds) of edible and available food went uneaten.

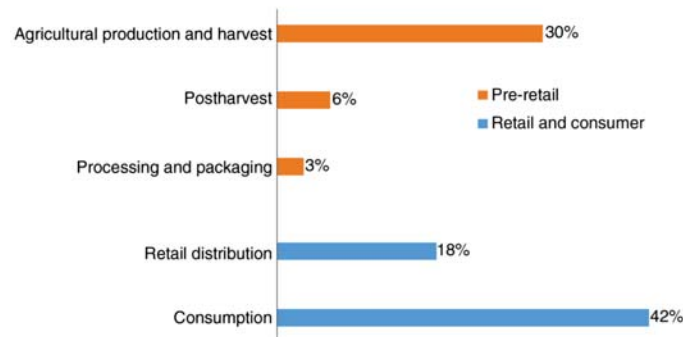


(Buzby et al., 2014)



Food Waste

Estimated food loss for fruits and vegetables in North America throughout the supply chain



Note: Numbers do not add to 100 due to rounding. Product loss is estimated by weight.
 Source: USDA, Economic Research Service using data from the Food and Agriculture Organization of the United Nations, 2011.

(USDA, 2020c)



A Brief History of School Nutrition

- Major Events:
 - Great Depression (1929 – 1933)
 - World War II (1939 – 1945)
 - Many young people rejected from draft related to malnutrition.
- Major Legislation:
 - The National School Lunch Act of 1946
 - Signed by President Harry Truman
 - Established nutritional standards
 - Reimbursements for school meals
 - Agricultural Act of 1954
 - Introduction of the Special Milk Program
 - The Child Nutrition Act of 1966
 - Signed by President Lyndon B. Johnson
 - Initiated The School Breakfast Program
 - Extended the Special Milk Program



(Martin & Oakley, 2008)



A Brief History of School Nutrition

- Healthy, Hunger-Free Kids Act of 2010
 - Signed by President Barrack Obama
 - Major focus:
 - Improve nutrition and focus on reducing childhood obesity
 - Sets nutritional standards for all school foods.
 - Authorized funding for federal school meals and child nutrition programs.
 - Increasing access
 - Expand eligibility requirements.
 - Increasing program monitoring and integrity
 - Audits to ensure compliance with nutrition standards.
 - Parents have free and open access to nutritional quality of school meals.
 - Increased provisions to ensure the safety of school foods.

(USDA, 2013)



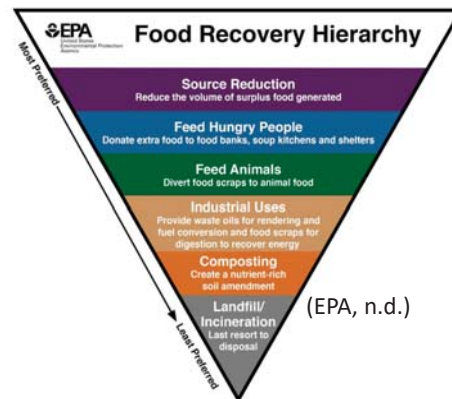
Gleaning and Glean Programs

- Biblical
 - Gleaning has been around for thousands of years with some of the earliest references to gleaning coming from the Bible, in the Books of Deuteronomy (King James Version, 2017, Deuteronomy 24:19) and Leviticus (King James Version, 2017, Leviticus 19:9-10).
- USDA
 - According to the United States Department of Agriculture (2010) definition, "gleaning is the act of collecting excess fresh foods from farms, gardens, farmers markets, or any other source in order to provide it to those in need".



Gleaning and Glean Programs

- Potential motivations for participation:
 - Reducing food waste.
 - Increase access of food to those in need.
 - Support community partnerships.
 - Supplement child nutrition programs by decreasing food costs.
 - Possible tax deductions for farmers.



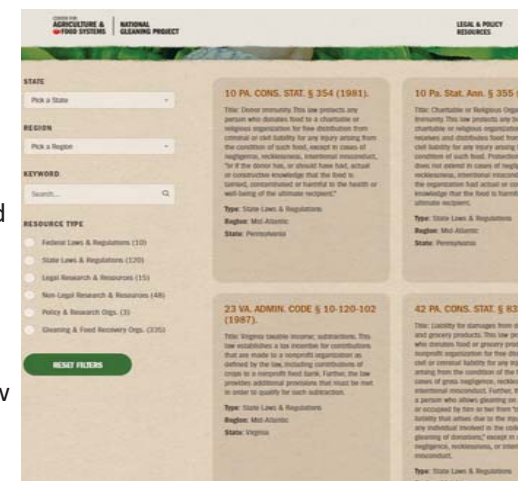
(EPA, n.d.)



Gleaning Legislation: Donations

Helpful resource for both donors and recipients:

- Center for Agriculture & Food Systems: National Gleaning Project
- Partnership between USDA and Vermont Law School.
- Database of gleaning related laws and policies on a national, regional, or state level.
- Continuously updated with new or changed laws and policies.



(Center for Agriculture & Food Systems, 2020b)



Gleaning Legislation: Donations

There are many national and state specific laws related to gleaning, some examples include:

- Bill Emerson Good Samaritan Act (1996) (National)
 - Signed by President Clinton in 1996
 - Offers protection (removes liability) for food donors if they take necessary steps to ensure food safety of donated foods. (USDA, 2010)
- Iowa Code § 190B (2013) (State)
 - Farm to food donation tax credit.

(Center for Agriculture & Food Systems, 2020c)



Glean Programs: Supply & Demand

- Possible supply and demand barriers
 - Limited awareness of programs from both donors and recipients.
 - Difficulty in locating and/or contacting donors.
 - Location and size of operation.



Glean Programs: Building Connections

Center for Agriculture & Food Systems: National Gleaning Project

- Nationwide Map of Gleaning & Food Recovery Organizations.
- Specific glean & school nutrition program partnerships have already been identified by using this resource.



(Center for Agriculture & Food Systems, 2020a)



Example

- AG Against Hunger
 - Non-profit organization based in Salinas, California.
 - Funded through grants and community donations.
 - Has operated for 25 years.
 - Works with 57 partners.
 - Captures surplus produce and delivers to food banks and schools across a six-state network.
 - Approx. 12.7 million pounds of food each year.
 - Schools do not pay for produce but may need to pay a transport fee (if unable to be picked up).
 - Assists schools with purchase of small-scale salad bars.
 - Develops nutrition focused education materials for children.



(Ag Against Hunger, 2021)

(Center for Agriculture & Food Systems, 2017)



Potential Impacts & Applications to School Nutrition Programs

- Decreasing food costs by supplementing with gleaned food.
- Building community partnerships.
- Reducing food waste in the community.
- Educational opportunities for students.

Steps Forward: Potential Future Research

- Limited research in the area of gleaning. Most available data comes from government sources.
- Identify barriers and challenges in using glean programs in school nutrition programs.
- Identify and build partnerships between school nutrition and glean programs.



References:

- Ag Against Hunger. (2021). Ag Against Hunger website logo. Retrieved March 2, 2021, from: <https://www.agagainsthunger.org/>
- Buzby, J., Wells, H., & Hyman, J. (2014). The estimated amount, value, and calories, of postharvest food losses at the retail and consumer levels in the United States. U.S. Department of Agriculture. https://www.ers.usda.gov/webdocs/publications/43833/43680_eib121.pdf?v=7543_1
- Center for Agriculture & Food Systems. (2017). Models for Success: A set of case studies examining gleaning efforts across the United States. <https://www.nal.usda.gov/sites/default/files/GleaningCaseStudies.pdf>
- Center for Agriculture & Food Systems. (2020a). Gleaning map. Retrieved March 2, 2021 from: <https://nationalgleaningproject.org/gleaning-map/>
- Center for Agriculture & Food Systems. (2020b). Legal & policy resources. Retrieved March 2, 2021 from: <https://nationalgleaningproject.org/legal-policy-resources/>
- Center for Agriculture & Food Systems. (2020c). Legal & policy resources: Iowa code § 190B. <https://www.legis.iowa.gov/docs/code/190B.pdf>
- United States Environmental Protection Agency (EPA). (n.d.) Reduce wasted food by feeding hungry people. Retrieved March 2, 2021, from: <https://www.epa.gov/sustainable-management-food/reduce-wasted-food-feeding-hungry-people>
- King James Bible. (2017). King James Bible Online. <https://www.kingjamesbibleonline.org> (original work published 1769).
- Martin, J., & Oakley, C. (2008). History of child nutrition programs. In J. Martin (Ed.), *Managing child nutrition programs: Leadership for excellence* (2nd ed., pp. 47-141). Jones and Bartlett Publishers.
- United States Department of Agriculture (USDA). (2010). Let's Glean! United We Serve Toolkit. <https://www.nal.usda.gov/aglaw/gleaning-and-food-recovery>
- United States Department of Agriculture (USDA). (2013). Healthy Hunger-Free Kids Act. <https://www.fns.usda.gov/cn/healthy-hunger-free-kids-act>
- Center for Agriculture & Food Systems. (2017). Models for Success: A set of case studies examining gleaning efforts across the United States. <https://www.nal.usda.gov/sites/default/files/GleaningCaseStudies.pdf>
- United States Department of Agriculture (USDA). (2020a). Definitions of food insecurity. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>
- United States Department of Agriculture (USDA). (2020b). Food insecurity in the U.S.: Interactive charts and highlights. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/interactive-charts-and-highlights/>
- United States Department of Agriculture (USDA). (2020c). Food loss: Why food stays on the farm or off the market. <https://www.ers.usda.gov/amber-waves/2020/march/food-loss-why-food-stays-on-the-farm-or-off-the-market/>
- United States Food & Drug Administration (FDA). (2020). FSMA rules & guidance for industry. <https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-rules-guidance-industry>

