Food assistance: dignity, household choice and reliable service

Evidence on household choice, access and dependable food assistance, with separate findings on recipient experience, nutrition and operational performance. Historical studies identify priorities and trade-offs; they do not establish one universal distribution model or validate DigniFeed.

Research by Education Angel Group.
Education Angel Group is developing DigniFeed and has an interest in the proposed product. This review does not establish its effectiveness.

Current edition reviewed: 2026-10-12. Revision: public-v2.

Earlier editions

- DigniFeed: accountable operations for food distribution

  Research edition reviewed: 2026-09-19. Revision: public-v1.

Prepared by Education Angel Group (EAG). Sources reviewed October 12, 2026. EAG is developing DigniFeed and has an interest in its success. This review examines outside evidence about food assistance, not DigniFeed's effectiveness or availability.

1. What respectful food assistance needs to account for

Receiving food is not the same as receiving food a household can use. Quantity, condition, familiarity, the opportunity to choose, and the effort needed to reach a service all matter. Arkansas recipient interviews describe concerns about household fit; a Bronx field study documents uneven supply and changing service arrangements. Neither identifies one universally best distribution system. Long et al., D3, Ginsburg et al., D6

The central question is: what helps food assistance respect household circumstances while providing understandable, reliable service? This review distinguishes four outcomes that are often conflated: recipient experience, access, nutritional outcomes and operational performance. A change can improve one without

establishing the others. Waste reduction is a further outcome requiring its own evidence, not an automatic consequence of recording a preference or distributing more pounds.

The strongest retained intervention evidence cautions against a simple success narrative. A randomized environmental improvement in existing choice pantries did not produce statistically significant adjusted differences in overall client diet quality or cardiovascular health. That result does not negate recipients' preference for choice. It does mean that preference findings and successful implementation cannot be treated as proof of health benefits. SuperShelf evaluation, D5

2. Household need: what the national and Arkansas estimates measure

USDA estimates that 13.7% of U.S. households experienced food insecurity at some point in 2024; 5.4% experienced very low food security. The food-insecurity estimate was not statistically significantly different from 13.5% in 2023. These measures describe household resources for food over a year, not current pantry demand or a count of people needing assistance today. The source page's March 2026 update does not change the observation year. USDA ERS, D1

The matching Arkansas comparison uses pooled 2022-2024 estimates. Very low food security is included within food insecurity, so the two rows must not be added.
Rabbitt and colleagues, D2, Table 4, printed p.29

Household measure	Arkansas estimate	Arkansas 90% margin	U.S. estimate	U.S. 90% margin
Food insecurity	19.4%	±1.67 percentage points	13.3%	±0.40 percentage points
Very low food security	7.6%	±1.52 percentage points	5.2%	±0.21 percentage points

Figure 1

Household food security: Arkansas and U.S.

Percent of households in each geography, average 2022-2024. Very low food security is included within food insecurity.

Food insecurity

Arkansas: 19.4%

United States: 13.3%

Zero baseline | Shared scale: 0-25%

Very low food security

Arkansas: 7.6%

United States: 5.2%

Zero baseline | Shared scale: 0-25%

90% margins in percentage points: food insecurity AR 1.67, US 0.40; very low AR 1.52, US 0.21. Bars show point estimates without error bars.
Household percentages, average 2022-2024. Point-estimate bars; 90% margins in report table and data alternative. Very low food security is a subset, not additive. No site demand or product effect.

Household food security: Arkansas and U.S.

Household percentages, average 2022-2024. Point-estimate bars; 90% margins in report table and data alternative. Very low food security is a subset, not additive. No site demand or product effect.

- D2

These equivalents accompany the reader figures. Source IDs refer to the report references. A0 identifies EAG's product definition reviewed for the original report, not an external study or proof of availability. Other source IDs resolve to this report's reference and access record.

Figure 1. Household food security: Arkansas and U.S.

Household percentages, average 2022-2024. Point-estimate bars; 90% margins in report table and data alternative. Very low food security is a subset, not additive. No site demand or product effect.

Measure	Arkansas	United States
Food insecurity	19.4%	13.3%
Very low food security	7.6%	5.2%

Households in each geography; unknown food-security status excluded

90% margins in percentage points: food insecurity AR 1.67, US 0.40; very low AR 1.52, US 0.21. Bars show point estimates without error bars.

Published percentages unchanged; zero-based common axis; no difference or ratio calculation.

Sources: D2.

Figure 1. Household percentages, average 2022-2024. Bars show point estimates; the table supplies the published 90% margins. These are historical household estimates, not service counts or product effects. Text and data alternative.

The denominator is households in each geography, excluding unknown food-security status. Three-year pooling improves state precision but does not yield a 2024-only Arkansas estimate. A household survey cannot tell a particular drive whether its immediate problem is insufficient food, inaccessible hours, unsuitable offerings or an inaccurate stock record.

EAG's interpretation is that need should be described at the level where it is observed. National and state hardship warrant attention to assistance, but decisions about a particular service require evidence about its supply, recipients and operating constraints. Calling all unmet food need a software opportunity would obscure those differences.

3. Choice must be supported by usable food

Long and colleagues interviewed 50 adults at six Northwest Arkansas pantries in July-August 2018. Interviews were conducted in English, Spanish or Marshallese. Twenty-five participants came from choice pantries and 25 from minimal-choice pantries. The latter allowed refusal of unwanted food but not replacement with another item. Recruitment was from people already using those pantries, not from all households needing assistance. Long et al., D3, Methods, printed pp.2-4

Three themes concerned more food, better condition and quality, and food relevant to the household. Requests for protein and dairy were linked to their cost; unfamiliar items could be hard to prepare or remain unused. Concerns appeared in both choice and minimal-choice settings. The authors therefore did not present increasing choice alone as a sufficient solution. These interviews describe needs and coping experiences, not measured changes in waste, nutrition or health. Their participants were selected existing clients, and the pantry types were not randomly assigned. D3, Table 2 and Discussion, printed pp.6-11

Minnesota surveys provide a larger, different kind of account. Caspi and colleagues analyzed 4,321 clients at 188 pantries in the November 2017-February 2018 wave, and 5,529 at 220 pantries in November 2019-February 2020. Choosing one's own food was the leading experience priority, alongside welcome and easy selection. In the 2019 wave, 85% said fresh fruit and vegetables were important at each visit, while 52% said they were always available. This is a reported availability gap, not a physical stock audit.
Caspi et al., D4, Methods, Results and Figure 1

The surveys used client volunteers; refusal rates were not collected, and overlap between waves is unknown. The first wave was English-only, while the second added Spanish, Somali and Hmong. These differences limit comparisons and who is represented. Neither survey shows that a choice interface improves dietary outcomes or that appointment software shortens waiting. D4, Data collection and limitations

The practical inference is to ask what a household can actually use, and whether that preference can be accommodated with the available supply. A nominal choice between unsuitable items may leave the underlying need unresolved. Equally, stated dietary concerns do not authorize a service or an algorithm to infer medical needs or decide what someone ought to eat.

4. Access includes practical costs and the experience of asking

Evidence from current pantry clients omits people who do not attend. An earlier original study helps examine that blind spot, with important version limits. Wimer, Wright and Fong's 2013 working paper reports 63 interviews in San Francisco, collected in November 2011 and January-June 2012 through community, housing and school recruitment. Although the abstract calls the sample nonusers, the methods acknowledge several pantry users in the school recruitment. The study is best treated as a selected, predominantly nonuser account, not a representative nonuser survey. D7, Data and Methods, printed pp.6-8

Participants connected inconvenience, perceived food quality, crowded or contentious encounters, and emotional costs. Some regarded assistance as intended for others with greater need; others feared what accepting help implied about themselves. Positive perceptions of food quality also appeared. Some respondents blamed perceived outsiders, but the authors could not confirm claims of ineligible use or monopolization. The authors could not fully check perceptions against actual conditions, and Hispanic participants were underrepresented. These accounts show how material and social barriers can overlap; they do not quantify stigma prevalence or establish that changing registration will increase participation.
D7, Results and Discussion, printed pp.14-27

A 2016 journal article by the same authors reports 53 nonusers in its accessible abstract. Its full text was not retrieved in this review. That version is not counted as a second independent study, and its sample is not substituted into the working paper's methods. Published-version record, D11

A service can therefore look available on paper while remaining difficult to use. Reaching a location, finding the correct session, waiting, understanding a rule and carrying food home are distinct parts of access. EAG's inference is that evaluation should include unsuccessful attempts and people who decline service, rather

than only those who complete check-in. It should also let someone decline unnecessary disclosure without having to prove a personal hardship story.

5. Reliable information and changing supply complicate coordination

Ginsburg and colleagues studied a convenience sample of 50 pantry locations hosting 80 listed sessions in the southern Bronx during June-August 2014. Fieldworkers used a food-bank directory, observations and conversations with workers. After repeat attempts where appropriate, only 25 of the 50 visited locations were open when expected. Closures included permanent or temporary closure and outdated information; one location had workers present but no food pending a delivery. This is a historical finding for the visited locations, not a current Bronx closure rate.
D6, Methods/Results, manuscript pp.4-6; Tables 1-2, pp.20-21

Rules helped organize limited supply but could also restrict access. Workers described delivery-time workarounds and exceptions to ordinary rules. The analysis makes coordination and human discretion visible without identifying a universally correct rule. No data came directly from clients; experienced users might have known more reliable informal information than the researchers. Nonrandom, cross-sectional observations limit transfer to other places or occasional drives.
D6, Discussion, manuscript pp.8-12; Table 4, pp.24-25

The operational distinction is between information accuracy and the resources behind the information. Updating opening hours can prevent a wasted journey only if the update is timely and reaches the people relying on it. Recording a shortage can make it visible without supplying food. A reservation can express an intention without proving that goods were handed over. These are service questions, not evidence for a particular software architecture.

Roth and colleagues' mixed-method study adds a food-bank-level view. Its quantitative component used the May 2017 national survey, which received 196 completed responses; its qualitative component interviewed 10 national stakeholders. Stakeholders described donation dependence, transport and storage costs, limited staff capacity, and tension between poundage-based success measures and nutritional quality. Donor representatives did not participate in the interviews, and the accessible main article does not give an exact interview period. D10, Methods and interview findings, printed pp.822-832

Nutrition-strategy adoption was associated with lower reported proportions of selected foods classified by the study as unhealthy, but was not significantly associated with fresh-produce inventory. Cross-sectional data and self-reported, incomplete inventory categories prevent causal interpretation. The study's methods and Table 4 also give different sample counts for the unhealthy-inventory model; this review does not repeat its numerical effect estimate. It studies food banks and institutional inventory, not recipient allocation or an operational software trial. D10, Tables 3-4 and limitations, printed pp.828 and 835

Taken together, these studies make a simple efficiency target inadequate. More pounds need not mean better household fit. More detailed records can add work. Fewer visible exceptions might mean better service, or that people cannot challenge a rule. Those alternatives require observation; none can be resolved by a single fairness or efficiency score.

6. What intervention evidence does, and does not, establish

The SuperShelf trial randomized 16 Minnesota pantries to intervention or control. Participating sites already offered full client choice and needed a worker able to commit implementation time. Baseline collection occurred in 2018 and 2019; COVID-19 interrupted in-person activity at five sites. The initial paired sample enrolled 317 clients, while the main analysis used the 11 completed pantries. The enrolled sample is not a count of all completed follow-ups. D5, Methods, pp.2-5

The intervention combined healthier supply efforts with changes to layout and food presentation. Adjusted between-arm changes in overall diet quality, cart-selection diet quality and cardiovascular-health scores were not statistically significant. Selected within-arm component changes do not establish an overall intervention benefit. Pandemic interruption, selected sites and clients, and measurement timing constrain interpretation. This was neither choice versus no choice nor a test of coordination software.
D5, Tables 2-3 and limitations, pp.7-9

The findings support keeping outcome claims separate. Recipient preference is evidence about experience priorities. Inventory composition is evidence about what an institution reports holding. Health outcomes require measures of what people consume or their health, with an appropriate comparison. No retained study establishes that DigniFeed improves any of these outcomes, and no null result here proves that all forms of respectful choice are ineffective.

7. Responses worth comparing, and what needs to be measured

An appropriate response depends on the bottleneck. A service with unsuitable donations may need different procurement and recipient input. Unreliable published hours may need clearer update ownership. Inadequate storage or staffing may need resources. A disputed count may need a reconciliation process. These are EAG's response categories derived from the reviewed concerns, not evaluated intervention packages.

Established software is also a serious comparator. PantrySoft documentation describes registration, appointments, item selection, item/category limits, reservations and release after an unfinished selection times out. Its separate Open Scheduling guide says that mode has no controls over pantry or staff availability, and distinguishes intended appointments from recorded visits. Those are described capabilities and mode-specific limits, not independently tested accessibility, reliability or impact. No account or operational test was conducted for this review. D8, D9

Compare the improved existing staff-led process, an appropriate established tool, and any proposed new system. Include training, setup, service, correction and cleanup effort across roles. A shorter interaction at one screen may simply move work elsewhere. Account for differences in arrivals, supply and staffing; a before-and-after change alone cannot identify its cause.

Question for a local evaluation	Evidence to collect with appropriate authorization	What it must not stand in for
Can people obtain and use the offered food?	Successful and unsuccessful service attempts; voluntary accounts of household fit.	A count of registrations or completed forms.
Is service understandable and respectful?	Choices, help, correction and optional-disclosure experiences, including people who decline.	A satisfaction score from successful users alone.
Is availability information reliable?	Dated information compared with authorized stock checks and actual handovers.	A forecast or provisional reservation.
Does coordination reduce total work?	Time and correction work before, during and after service across roles.	Screen speed or throughput alone.
Are outcomes improving equitably?	Separate, locally defined access and experience measures with missing attempts visible.	A ranking of recipients or one composite fairness score.

Nutrition, food security and waste need separate outcome definitions and suitable observation periods. No numerical success target is established here. A new process should change direction if it misstates availability, creates additional access barriers or adds burden without a demonstrable service benefit. Improvements in information should not be used to excuse insufficient or unsuitable supply.

8. Limited applicability to DigniFeed

DigniFeed is EAG's planned AI-assisted food-drive coordination system. Its intended records distinguish stock, reserved items and confirmed handovers, with attributable corrections. Preferences are voluntarily supplied; recipient data remain minimal and purpose-scoped. Receiving service need not require an online account, and a direct recipient interface remains a separate decision. Authorized people retain allocation, exception and food-safety authority. The system must not automatically deny recipients, infer medical needs or rank human worth. These are governing intentions, not verified application capabilities.
EAG product definition, A0

The outside research is relevant to questions DigniFeed would need to answer: whose preferences can be accommodated, whether information is dependable, whether errors can be corrected, and whether coordination work helps or delays service. It does not show that AI is required. A non-AI process and

established alternatives remain valid comparisons. The combined system's fairness, nutrition, waste and efficiency effects are untested.

9. Methods, limits and references

This is a bounded narrative review, not a systematic review or meta-analysis. Source review for this edition occurred October 12, 2026. Original PDFs or full original articles were used for the retained empirical findings, with exact methods, findings, table and limitation locators recorded privately. No recipient interviews, observations, product trial or economic evaluation were conducted by EAG for this report. Publication dates and retrieval dates are not observation periods.

The 2013 nonuse working paper and its 2016 published-version abstract are distinguished above. Other full-text leads, including a later client-experience article and a 2019 nutrition-focused food-banking study, could not be retrieved as readable full originals in this review and do not supply substantive findings. An allocation preprint, practitioner checklist and historical legal material excluded in the earlier review remain excluded. Current legal, eligibility and food-safety requirements for a particular site are not verified here, and this report gives no handling or medical advice.

The main unresolved gaps are contemporary site-specific observations; access accounts covering intended recipients, nonusers and unsuccessful attempts; total coordination costs; suitable queue comparisons; and any evaluation of DigniFeed. Pantry and food-bank settings differ from occasional drives, so transfer must be justified rather than assumed. No comprehensive correction or retraction audit was performed. New original evidence or source corrections should update the relevant finding and its interpretation together.

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