



## Ingrained habits: the “kitchen cars” and the transformation of postwar Japanese diet and identity

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### ABSTRACT

This article explores the history and politics of American-funded food demonstration buses (“kitchen cars”) in postwar Japan. Their express mission was to transform the Japanese national diet. I make two primary arguments. First, at least in the short to medium term, the kitchen cars were a win-win for both the United States and Japan. On the one hand, Japan benefited because the kitchen cars taught Japanese women how to cook cheap, nutritious, mostly easy dishes to improve the health of their families and the nation. On the other hand, these menus were planned specifically to increase consumption of American agricultural products, especially wheat, soy, and corn. For US agricultural and political interests, in addition to supporting the economic recovery and political stability of a Cold War ally, the kitchen cars – along with the school lunch program – were instrumental in teaching Japan to accept and consume American produce. My second argument concerns the reasons for the kitchen cars’ success. I identify the following two factors: staffing by mostly female professional nutritionists, who combined authority with approachability for the kitchen cars’ main audiences of middle-aged, married women; and the kitchen cars’ mobility, which allowed them to reach even remote villages and hamlets.

### KEYWORDS

Kitchen cars; Japan; Public Law 480; Cold War; dietary transformation; nutrition; nutritional improvement; wheat

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### Introduction

We’re going to show you how to make five servings of Indian-style roasted sardines. This is a great way to supplement the calcium and vitamins deficient in many rural diets. A medium-sized sardine is about 50 grams, or one serving. So for five servings, fillet and salt five sardines (about 250 grams) . . .” Today, too, the voice from the microphone in the truck parked by the roadside rings out through the hazy heat under ominous clouds. Farmwomen take a break from working in the fields and gather round, filled with curiosity. It is a strange bus, clearly not a tour bus . . . The center and rear of the bus pop open and two young women in aprons alight. Next come a state-of-the art sink and petroleum burner, pots, a kettle, a cutting board, and a rice paddle, transforming the roadside into a fashionable kitchen . . . The initially stunned onlookers slowly begin to comprehend the situation as one of the aproned women pulls sardines from the bus’s refrigerator and salts them as she continues: “Coat the sardines in a 3:1 mix of flour and curry powder, place them in a pot with butter or oil, and put on the lid. Don’t think of fish as just something to be broiled. Instead, steam them like this. The nutrition won’t be lost.”

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**Q3** Table 1. JNA kitchen car specifications.<sup>28,29</sup>

Q4	Chassis	Customized Nissan E-591 bus chassis
Engine	Gasoline	
Capacity	7 persons	
Dimensions	<ul style="list-style-type: none"> <li data-bbox="396 257 484 281">● Length</li> </ul>	685 cm
	<ul style="list-style-type: none"> <li data-bbox="396 283 484 307">● Width</li> </ul>	231 cm
	<ul style="list-style-type: none"> <li data-bbox="396 309 523 333">● Total height</li> </ul>	270 cm
	<ul style="list-style-type: none"> <li data-bbox="396 335 547 360">● Interior height</li> </ul>	172 cm
Equipment	<ul style="list-style-type: none"> <li data-bbox="396 362 623 386">● 2-burner propane stove</li> <li data-bbox="396 388 1031 412">● Stainless steel counter, sink, and 120-liter water tank with electric pump</li> <li data-bbox="396 414 576 438">● Decola prep table</li> <li data-bbox="396 440 497 465">● Shelving</li> <li data-bbox="396 467 694 491">● Refrigerator (7.5 kg ice capacity)</li> <li data-bbox="396 493 668 517">● Pamphlets, printed materials</li> <li data-bbox="396 519 821 544">● Microphone, tape recorder, record player, radio</li> </ul>	

Osaka's "kitchen car," operated by the prefecture's Food and Lifestyle Consultation Center, debuted in November 1951. By the time the above article appeared in the *Asahi Shimbun* on July 28, 1952, the "young and beautiful nutritionists" of the kitchen car had already performed over one thousand demonstrations around Osaka prefecture, and this public nutritional guidance outreach project had become the model for six more buses planned for Japan's major urban areas (*Asahi Shimbun* 1952).

Subsequently, the United States funded the cars, fuel, labor, and ingredients required to operate a fleet of kitchen cars around Japan, 1956–1960. The kitchen cars were phenomenally popular and had a profound effect on Japan's postwar dietary transformation. By the end of the decade, a dozen "food demonstration buses," as they were often called in English-language materials, had reached nearly two million people all over Japan (Takashima 1978). Their twinned goals were "improving nutrition" (*eiyo kaizen*) and "encouraging (wheat) flour-based food" (*funshoku shōrei*) (Suzuki 2003, 54–57) – or, as the health ministry put it in an English-language summary, "Balanced diet, 'with more flour'" (Ministry of Health and Welfare 1958, 37). Staffed by a team of three professional nutritionists each and operated with the cooperation of local health officials, the kitchen cars gave multiple demonstrations every day of nutritionally balanced, economical foods to improve the Japanese national diet. Along with the day's recipes, pamphlets about proper nutrition were handed out at the end of each demonstration. In the 1960s, the total number of kitchen cars surpassed 100, and millions more Japanese attended cooking demonstrations, sampled the foods, and took home recipe pamphlets and other promotional materials (Ōiso 1963, 2; Takashima 1978).

The 1950s' nationwide kitchen car program was conducted with funding from the United States Department of Agriculture's Foreign Agricultural Service and cooperation from the Japanese Ministry of Health and Welfare and affiliated organizations like the Japan Nutrition Association (Nihon Eiyō Kyōkai; JNA). On the one hand, though national nutrition figures had ameliorated in the decade since defeat and surrender, Japanese health bureaucrats worried that this recovery was plateauing, and government documents continued to sound klaxon alarms; the 1957 health ministry white paper warned of "the existence of banal starvation for a plurality of citizens" despite significant improvement (Kōseishō 1957, sec. 1.3.1; see also Kōseishō Eiyōka 1958; Kōseishō 1958, fig. 88). On the other hand, for reasons of both domestic and international politics, the United States sought foreign markets for domestic agricultural surpluses. On the home

front, Washington had to support its politically powerful and economically important farmers. Internationally, food aid became a tool to develop the economies of friendly, “food-deficit” countries and assure their allegiance to the Western bloc in the deepening Cold War. Central to this policy was Public Law 480 (PL480), the 1954 Agricultural Trade Development and Assistance Act, which provided lavish funding for the kitchen cars on the condition that they promote wheat – and later soy and other American products – in some of their recipes (Cochrane 1960; Hedley and Peacock 1970; Helscher 1978). The kitchen cars eventually spread to every prefecture in Japan, providing cooking demonstrations and samples of foods to address national dietary shortcomings in what was presented as the most scientific, rational, time- and resource-efficient, and economical manner possible, while simultaneously promoting American political and economic interests. 75 80

Though they were wildly popular in their heyday, today the kitchen cars are now often blamed for contributing to the destruction of “traditional” Japanese dietary patterns and the “Westernization” of the diet that accelerated during the postwar years of high economic growth, especially mid-1950s to mid-1980s.<sup>1</sup> This backlash stems in part from the fact that American financing was hidden not just from the public, but also from the nutritionists, public health nurses, and others who staffed or assisted with the kitchen cars. Although these Japanese professionals believed strongly in their mission to spread the gospel of better nutrition and saw their work as a genuine contribution to national health, and although journalists and audiences alike overwhelmingly shared in this enthusiasm for better health at reduced cost (Hopson forthcoming), the kitchen cars’ significant impact on dietary changes in postwar Japan and the source of their funding, has made them subject to cultural- and food-nationalist critiques (e.g., Suzuki 2003, 3; Ehara, Ishikawa, and Higashiyotsuyanagi 2009, 309).<sup>2</sup> 85 90 95

This article traces the history and politics of these kitchen cars in postwar Japan. In doing so, I make two arguments, the first about the mutually beneficial nature of the project for Japan and the United States, and the second about its success. While today the downsides of the so-called “Westernization” of the Japanese diet often receive more attention, I argue that at least in the short to medium term, the kitchen cars were a win-win for both the United States and Japan. Nutritional improvement remained a pressing issue for Japan through the 1960s. Encouraging Japan to consume more wheat was a pressing issue for the United States, which needed to dispose of domestic surplus, help its ally recover and develop economically, and simultaneously open up Japan as a wealthy and import-dependent market for American farm products (Takashima 1978). For the Americans, the explicit goal of these food demonstration buses was “to alter the style of the present [Japanese] diet centering around rice to that of balanced meals including wheat products” (Japan Nutrition Association 1956, 1). Through this program, Washington was able to support economic recovery and political stability in its subordinate Cold War ally while simultaneously disposing of domestic agricultural surpluses and opening new markets for future farm products; by the early 1960s, Japan had become “the single largest market for U.S. agricultural commodities” (United States Congress 1977, 17). Japan benefited from this arrangement in several ways, too. First, American wheat, corn, and soy were cheap and plentiful fuels for economic recovery. Along with much smaller quantities of dairy and meat products being promoted through both the kitchen car and many other American programs, these ingredients promised a better-balanced, more rational and economic diet. 100 105 110 115

This was especially important in the wake of wartime deprivations and the context of skepticism about rice and the “traditional Japanese diet” in nutrition and medical circles in Japan. Second, the American food aid that flooded the Japanese market and was promoted through the kitchen car program was obtained through long-term, low-interest economic and infrastructure development loans (Cochrane 1960, 17). In short, the kitchen cars were a joint Japanese-American venture entangled in the postwar politics of and between the two countries, developed and operated in a complex socioeconomic and political nexus but largely to the practical, realpolitik benefit of both sides.

The kitchen cars, which introduced many novel foods to their audiences, became – along with the school lunch program – one of the most important tools for marketing American farm products, especially wheat, soy, corn, and meat and dairy.<sup>3</sup> In doing so, the kitchen cars “contributed mightily to the history of nutritional improvement guidance in Japan” (Japan International Cooperation Agency 2003, 103) and were critical to Japanese dietary changes and to American wheat exporters’ success in the Japanese market (Ōiso 1959, 171–75; Takashima 1979, 101–2; Solt 2014, 77–78). Ehara Ayako, et al (2009, 314), argue that the “Westernization of the diet” in the home was spurred by the use of bread and milk as the core of the national school lunch program, as children grew up used to these new ingredients, flavors, and styles. The kitchen car program similarly encouraged changes in the diet by teaching the mothers of those schoolchildren how to cook foods with “Western” ingredients. The JNA, a nominally private organization affiliated with the health ministry that operated the kitchen cars in Japan, described them as mobile education centers to teach Japan’s “housewives how to prepare bargain wheat meals to fit into present food habits,” but in fact they were creating those food habits rather than reflecting them (Pollock and Baum 1979, 199; see also Suzuki 2003, 51–58).<sup>4</sup>

This success, I argue, was primarily the result of two factors. First, staffed by professional nutritionists, most of whom were women, the kitchen cars combined authority with approachability for their mostly female audiences.<sup>5</sup> Second, the kitchen cars were a tremendously effective vehicle (pun noted, if not intended) for delivering the reborn postwar gospel of modern, rational nutrition. The kitchen cars had numerous advantages over public halls, health centers, and the like. First, no venue setup was needed; the buses were self-contained, mobile education performance spaces. Demonstrations started as soon as a suitable audience assembled. Second, the low commitment made participation easy. Reservations were not required, and the kitchen cars went to the people instead of the other way around. Especially outside Tokyo, those hoping to attend a lecture or seminar often faced time, transportation, and financial obstacles. The kitchen cars happily went anywhere there was a road to drive on; as one American publication noted, they “reach into areas not reached by other means of communication” (United States Foreign Agricultural Service 1959, 26). Third, the more casual, intimate atmosphere made it easier for audience members to show up and to ask questions.<sup>6</sup> Fourth, kitchen car demonstrations were easy to publicize, usually with the help of local women’s groups, PTAs, public health centers, and governments. Fifth, because they were equipped with state-of-the-art kitchens, in addition to novel ingredients, techniques, and nutritional knowledge, kitchen cars exposed rural residents to new tools and equipment to which they otherwise would not have had easy access (Komatsu 1962, 30; Morita 1964, 151; Mori and Hashimoto 2012). Chief among these was the spectacle of brand-new

stainless steel cooking surfaces and accouterments associated with the “bright life” of budding postwar middle-class consumerism and especially the new housing developments (*danchi*) pioneered by the Japan Housing Corporation for “the aspiring middle-class families that government officials believed would rebuild Japan” (Neitzel 2016, 26; see also Partner 1999, 137; Siniawer 2018, 133). 165

Because the kitchen cars were a policy implement to improve national nutrition and the health of the national body on the one hand and to make Japanese citizens receptive to American foods, they should also be understood within both the biopolitics of modern states and the emerging Cold War context. In a general sense, food and nutrition have been at the core of discourses of modernity and civilization since at least the middle of the nineteenth century. By that time, the imbricated discourses and practices of nutrition, hygiene, and empire – what Barak Kushner (2011, 35) called the “three pillars of modernity” – had emerged as key constituents of the Western powers’ imagination of a world hierarchy of nations.<sup>7</sup> Food was also central to the governmentalist biopolitics of the modern state. In this vein, Alice Weinreb, referencing Foucault, has argued that when “modern biopolitics cast the body as the primary expression of political ambitions,” food became a key conduit for realizing those goals (2017, 4). Nutrition, as both science and practice, played a key role in the “diffuse, persuasive, and limited” exercise of governmentality to reshape the practices of everyday life in modern societies (Henry 2014, 2, 4). In both domestic and colonial contexts, food and eating practices were mobilized as a tool with which to achieve a diverse set of policy goals, from improving the quality of life of the working classes to augmenting national strength as part of the “great game” (Levenstein 1993; 1996; Roth 2000; Cullather 2007; Barona 2010; Ruis 2013; Hopson 2019). 170 175 180 185

### **PL480, Oregon Wheat, and the origin of the kitchen cars**

1954 was the pivotal year for the creation of a nationwide kitchen car program in Japan. First, PL480 committed the United States to a large-scale, long-term program combining international food aid with economic development. In Japan, the introduction of PL480 aid built on the postwar national school lunch program, implemented in 1947 and consisting primarily of American bread and milk 1951–1976, as a market development strategy for US farm products (Ishige 2011, 161).<sup>8</sup> Second, when representatives of the Oregon Wheat Growers League (OWGL) met with health ministry officials during their survey of Japan, they were persuaded that the kitchen car could rival the school lunch program as a market development tool for US producers. As a result, from 1956 until 1960, funds from PL480 were used to sponsor a total of a dozen kitchen cars operated by the Japan Nutrition Association. The results of this pilot program impressed Japanese policymakers and the public enough that during the next decade, cities and prefectures across Japan rolled out their own kitchen cars, this time subsidized by Tokyo rather than Washington. 190 195 200

PL480 was a watershed “in the history of American food aid that separates an earlier era of ad hoc, time-limited responses to food relief needs overseas and a later era in which there came into existence a permanent public institution with a capacity and mandate to use American food as a tool to help conduct the foreign policy of the United States” (Riley 2017, 184). The law became the central pillar of postwar American food aid, especially as 205

a tool of economic and foreign “food for peace” policy.<sup>9</sup> Under Title I of PL480, the United States accepted foreign currencies as payment for agricultural commodities. Title II authorized the disbursement of surplus agricultural products to American allies in response to emergencies. Title III allowed nonprofit relief organizations to distribute surpluses to the needy, both domestic and foreign. Finally, Title IV permitted the US to barter agricultural surplus “for strategic and other materials produced abroad.” The objectives of PL480 were to promote American agricultural security and stability, promote international trade in US agricultural commodities, and bolster the economic development of Cold War American allies and friendly nations (Cochrane 1960, 15).<sup>10</sup> Export markets solved problems of excess capacity, storage costs, and the potential collapse of domestic prices that had resulted from ramping up production during wartime to feed the Allies. Propping up the politically and economically important farm sector was not the only goal or result of these efforts; food aid and exports became powerful political tools for spreading American influence. Donating, and then selling, American grains, meat, dairy, and other agricultural products to needy allies helped to shore up the Western bloc as well as the US economy. PL480 was widely justified on the basis of “an American moral commitment to feed the world’s hungry,” but American political agendas came first and “doing good” came second (Sorenson 1979, 63). Despite initial friction and misgivings in Washington, by the 1960s, the expanded “Food for Peace” program was so successful as a foreign policy tool that its director George McGovern called it “a far better weapon than a bomber” in the Cold War struggle for hearts and minds, especially in the developing world (quoted in Dethier and Funk 1987, 25).

In Japan, American agricultural surpluses and long-term loans under Title I of PL480 were generally considered well-suited to advancing the government’s paramount priority, namely the orderly revitalization and expansion of industry and the growth of the economy (Hardin and Hesser 1961, 5–14). Proceeds from PL480 Title I sales of American surpluses were put back into the Japanese economy as long-term, low-interest development loans. On the one hand, these sales and loans created insoluble tensions with the desire for agricultural self-sufficiency expressed by many bureaucrats and politicians, especially those involved in the agricultural sector.<sup>11</sup> On the other, PL480 provided Japan cheap fuel for nutritional improvement and economic growth, which helped mollify domestic concerns about any downsides to accepting foreign food and economic development aid. For this reason, imports of American farm surplus were generally welcomed by the Japanese government, bureaucrats, businesses, the medical establishment, and the public, and ultimately had profound effects on the dietary transformation of postwar Japan (Solt 2014, 74).<sup>12</sup>

From the outset, the health ministry was particularly enthusiastic about PL480 aid as an inexpensive way to diversify and improve the national diet (Kōseishō Kōshū Eiseikyoku Eiyōka 1956, 8–9; see also Hopson [forthcoming](#)). In 1956, the ministry’s nutrition section, under Ōiso Toshio, identified the promotion of wheat as its solution to the fundamental flaw in the national diet, its overreliance on white rice (Kōseishō Kōshū Eiseikyoku Eiyōka 1956, 5–6).<sup>13</sup> Ōiso, who convinced the United States to fund the national kitchen car program, believed that mobile food education centers with a focus on rational, economical, nutritious foods – including wheat and corn, for example, but also meat, dairy, and oils – were ideally suited to the ministry’s postwar campaign for

nutritional improvement (*eiyo kaizen*), which had begun in earnest with passage of the 1952 Nutrition Improvement Act and already included measures to, among other things, boost wheat and oil consumption (Fujisawa 1999, 11–12; Ehara, Ishikawa, and Higashiyotsuyanagi 2009, 309). 255

In 1949, the OWGL had dispatched its first envoys to Asia to explore market development opportunities. A second mission followed the passage of PL480 in 1952.<sup>14</sup> “After 260  
visiting nine countries, the team felt that Japan offered the best starting point” to market wheat in the region (Oregon Wheat Growers League n.d.).<sup>15</sup> By 1953, Japan had agreed to purchase 85 USD million of American farm commodities. 2 USD million of that money was set aside to promote additional sales in Japan. The Japanese government was the 265  
monopoly buyer of wheat and other imported staples, so when it adopted an official policy in 1955 of promoting wheat consumption as part of its efforts to improve national nutrition, this was a major boon to US exporters, especially in the Pacific Northwest. By this time, almost 70% of wheat produced in the region was bound for the export market, because, “separated from United States population centers by restrictive freight rates,” states like Oregon and Washington were able to sell their wheat more profitably abroad. 270  
Japan in particular was an attractive target because American wheat sold for half the price of domestically produced rice and because – with government approval – the medical and nutritional establishment promoted wheat as a cheap, healthy, rational staple that would help Japan overcome under- and malnourishment and rebuild socioeconomically. In other words, the OWGL found that “Japan offered more opportunities for expanding 275  
the consumption of wheat foods than any other Asiatic country,” and Japan welcomed that wheat as fuel for postwar recovery (Neuberger 1957, 705).

A third mission ironed out policy details with Tokyo, settling on a hybrid campaign combining nutrition and food education with more straightforward marketing promotion. By the end of 1954, Tokyo and Washington had concluded an agreement for the United 280  
States to provide 85 USD million of farm surplus to Japan under Title I of PL480 (*New York Times* 1955). This Title I arrangement was renewed in subsequent years (*New York Times* 1956). On April 26, 1956, the OWGL contracted with the FAS to initiate a 400,000 USD campaign to promote American wheat in Japan, starting with Oregon. The following month, OWGL signed an agreement with the Food Life Improvement Association 285  
(Shoku Seikatsu Kaizen Kyōkai) for 170,000 USD of wheat promotion, and with the Japan Nutrition Association for two projects totaling 190,000.<sup>16</sup> USD

Following Baum’s recommendation, the OWGL entered into an agreement with the FAS to provide wheat to the Japan School Lunch Association to expand the school lunch program – and with it, wheat consumption – in rural areas especially (Minyard 1967a, 6; 290  
1967b, 9). The initial OWGL surveys reported that Japan’s “school lunch program offered the best possibility for expanding the consumption of the wheat products” (Anderson 1954). By the mid-1950s, six million of Japan’s twelve million schoolchildren received a wheat-flour roll and reconstituted powdered skim milk – usually accompanied by a hot dish – daily at school. Bread supplied more than half of the lunchtime calories and about 295  
one-third of the total protein for the meal. Another one million children received milk as a supplement to lunches brought from home. In both cases, the wheat and milk were American. These schoolchildren represented a significant future consumer base – but one with massive latent expansion potential, as seven million primary and nearly six million secondary school students were not served by the school lunch program. As the *Japan* 300

*Times* later summarized, it was important to get American bread and milk on the table when those children were “young enough to profit the most from taking wheat dishes: young enough to develop a taste that will last a lifetime” (*The Japan Times* 1957a). By the end of the decade, American and Japanese policymakers had reached broad consensus “that school lunch has had more effect on increasing consumption of wheat foods than any other single activity, because the children learn to like the taste of wheat rolls at school and want them to eat in the home” (Neuberger 1957, 709). 305

From the outset, however, Baum was also intrigued by the possibility of the kitchen car, which eventually came to rival the school lunch program in its transformative effects on Japanese dietary habits. Ōiso Toshio, the health ministry’s nutrition section chief, persuaded Baum that the school lunch program was not the only outlet for US surplus or path for market development in Japan. Osaka’s kitchen car had caught the eye of the Tokyo metropolitan government, which debuted its own on January 16, 1954. Retrofitted at a cost of ¥4.9 million, this bus was equipped with an electric refrigerator, a petroleum-fired cooking range, a counter for cooking, and a sterilizing light. Its first public appearance was at the seventh anniversary celebration of the start of Japan’s postwar school lunch program on January 22, 1954 (*Yomiuri Shimbun* 1954). Though Tokyo’s “kitchen on wheels” was intended to “make the rounds of schools to show the proper way of preparing school lunches,” Ōiso used it as a proof of concept to convince the OWGL that, if properly funded and deployed on a large scale, the kitchen car would be as effective as the school lunch program in promoting increased wheat consumption in Japan (*The Japan Times* 1954). 310 315 320

Ōiso, a medical doctor who had worked with occupation authorities, ran the health ministry’s nutrition section from 1953 to 1963 before heading the national nutrition institute. The man “responsible for guiding the dietary habits of the population of Japan” was, as George Solt (2014, 78) noted, motivated by concerns that the rice-based Japanese diet was nutrient poor and his belief in the superiority of wheat. Doubts about the nutritional value of rice were not new in Japan, having been a central concern of nutrition science in Japan since its inception in the 1910s (Hopson 2019). Japan’s defeat by the United States seems to have reinforced a self-Orientalizing discourse about the inferiority of rice amongst some Japanese opinion leaders, Ōiso included.<sup>17</sup> Ōiso was known in the ministry as an “idea man,” and the idea to expand the use the kitchen cars to a national program of nutritional improvement, sending nutritionists town to town, village to village throughout Japan, was his. 325 330

When Baum’s delegation visited the health ministry, Ōiso took the American team to Hibiya Park to show them Tokyo’s kitchen car and pitch his plan to take it national. He believed that while not all aspects of PL480 were positive for Japan, overall it represented an appealing opportunity to fund the kitchen car project, provide a cheaper staple for a starving nation, and improve the national diet in the long run (Suzuki 2003, 45–50). “It will be hard to increase wheat consumption in Japan,” Ōiso explained to Baum. The situation was complex, he continued, but “the most effective method to increase awareness among regular consumers is the kitchen car.” Without a cash infusion, however, Ōiso worried that the idea would never get off the ground. He had reason for concern, as an earlier proposal for national funding in the Diet had been ignored (*Dai nijūhachi kai Sangiin Kokkai Shakai Rōdō Inukai kaigiroku dai jūni gō* 1958, 1). In return for American assistance, he promised to be “very helpful” to Baum and his compatriots (Ōiso 1959, 335 340 345

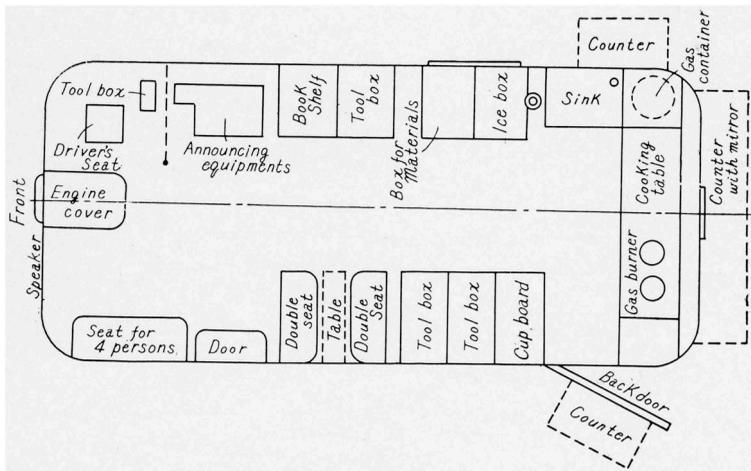
171). Baum's interest was piqued, as Ōiso hoped it would be. This was the beginning of a proverbial beautiful relationship; Baum later described Ōiso as "the best friend we have in Japan for increasing consumption of wheat foods" (Neuberger 1957, 716).

In addition to the kitchen cars, US wheat promotion in Japan was divided into several well-advertised and conspicuous programs: baker training (1956–1957, 1959), advertising in newspapers and magazines and on television and radio (1957–1958), a training program for home-improvement extension workers to increase wheat consumption in rural areas (1959–1960), a personnel exchange program (1956–1960), an effort to make the Japanese school lunch program universal (1957–1960). There were also peripheral events like an annual golf tournament (the American Wheat Cup) and trade fair exhibits to encourage wheat consumption.<sup>18</sup> For the kitchen cars, in contrast, working through ministry-affiliated organizations and private trade associations obscured American participation. So, while major Japanese food manufacturers like Ajinomoto, Kagōme, Mizkan, and Kewpie plastered advertisements all over the recipe flyers distributed to kitchen car cooking demonstrations, the public – and apparently even nutritionists, local officials, and others involved in the program – remained unaware of American involvement (Suzuki 2003, 58–61).

### The JNA kitchen cars, 1956–1960

In terms of scale and long-term effect, the kitchen car was the only American farm product promotion program in postwar Japan to rival the school lunch program. The USDA's attaché in Tokyo reflected that the kitchen car program, carried out with the full blessing and cooperation of the health ministry, had been "one of the most successful" operated with PL480 funding in Japan (Hallowell 1967, 11; Helscher 1978 n. 23). In contrast to the school lunch program, which used a fiat economy to develop future generations of consumers, the kitchen car targeted "housewives" for education about better (rational) dietary choices for their families.<sup>19</sup> The two programs had a natural synergy. Children were taught to like bread and milk at school, while their mothers were taught to cook – and economize – with wheat, soy, corn, dairy, meat, etc., at home. "Children like bread and milk; they ask for it at home on days when they are not in school," as one report succinctly observed, and now mothers had the knowledge and inclination to provide these and other foods as part of a modern, rational, scientific diet (Hardin and Hesser 1961, 18). As one assessment described it, "The educational challenge [was] twofold: (a) to reach the young people, and (b) to inform their parents on matters of nutrition and hygiene" (Hardin and Hesser 1961, 10). Ultimately, these programs contributed significantly to Japan's postwar dietary transformation, often summed up as "Westernization" (*shoku no Ōbeika*).

The JNA's initial fleet of eight kitchen cars, which officially debuted October 10, 1956, was manufactured in Nissan's Yokohama plant. In August 1958, four additional buses were added. At a cost of ¥3.5 million each, these kitchen cars were substantially cheaper than Tokyo's earlier refurbished bus. They were staffed by teams of professional nutritionists supported by local public health officials. The JNA's kitchen cars (Figure 1) supplemented a raft of nutrition improvement workshops, exhibits, seminars, and a publicity blitz in movies, radio, magazines, posters, pamphlets and leaflets, and even street-corner entertainments like paper theater (*kamisihibai*) and magic lanterns, all

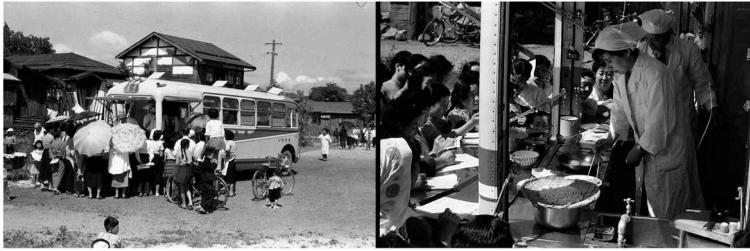


**Figure 1.** “Plan of the bus.” From Japan Nutrition Association 1956. Courtesy of the Helen Strow collection, Michigan State University Archives and Historical Collections.

supported by the health ministry as part of its campaign of national nutrition improvement (Kōseishō Kōshū Eiseikyoku Eiyōka 1956, 7). The JNA loaned out its fleet of twelve kitchen cars to the prefectures. By the summer of 1957, the kitchen cars had together traveled nearly 73,300 kilometers to give over 2500 demonstrations for almost 259,000 Japanese women (Neuberger 1957, 706). By 1960, the kitchen cars had collectively put 575,000 km on their odometers and given demonstrations to nearly two million Japanese at 20,000 locations around the country, focusing primarily on rural areas (Japan International Cooperation Agency 2003, 105; Conlon 2009, 7; Takashima 1979, 14).

The objective of the kitchen cars was explicitly “to expand consumption of wheat . . . in Japan and to provide Japanese adults at the community level with information on balanced diets emphasizing the need for inclusion of wheat” foods in their diet and that of their children (Hardin and Hesser 1961, 19). With this in mind, each demonstration included at least one wheat dish, under slogans such as, “Flour-based food once a day” (*ichinichi ikkai funshoku o*) (Kōseishō Eiyōka 1958, 19). In 1958, the American Soybean Association (ASA) joined the kitchen car project through a new Japanese subsidiary, and soy recipes began to appear along with wheat (Hardin and Hesser 1961, 19; Takashima 1979, 103).<sup>20</sup>

Nutritionist Shōen Miyoko described a typical day in the kitchen car, with one stop in the morning and one in the afternoon. Figure 2 shows a typical scene from this period. The two photos were taken in rural Aomori prefecture. Within minutes of the kitchen car’s arrival outside a public housing project (*danchi*) that morning, thirty or forty women assembled, drawn by pre-circulated leaflets and the bus itself. This audience size appears to have been typical – at least for major urban areas – as were the agenda (a brief lecture and cooking demonstration), and staffing.<sup>21</sup> After a brief lecture from the health nurse – and contrary to what might be expected from a venture funded by American wheat interests – Shōen’s team prepared fish soup; seasoned, fried whale; and fish paste (*chikuwa*) with cod roe.<sup>22</sup> Bite-sized portions were passed around to the crowd for tasting (Tamura 1964, 147; Kawakita 1964, 149). This performance was repeated in the afternoon at a local temple. Both audiences, wrote Shōen, appreciated the quick, nutritious, and economical dishes (Shōen 1955, 96–97).



**Figure 2.** Wide (left) and close-up (right) views of a kitchen car demonstration in rural Aomori. Year unknown. Courtesy of the Aomori Prefectural Museum.

Though the direct effects on diet are difficult to measure, the popularity and effectiveness of the JNA's kitchen cars is attested in numerous ways. First, survey data collected at the time indicated tremendous participant satisfaction levels. In 1957, 96% of the approximately 55,000 survey respondents described themselves as satisfied, 99% wanted the kitchen car to come around again, and (crucially) 92% indicated that they intended to implement some of the recipes and ideas they had learned at home. Second, residents in numerous prefectures petitioned their prefectural governments to build their own kitchen cars, while the prefectures petitioned Tokyo for funding (Takashima 1979, 104). In February 1958, for instance, the city of Funabashi, Chiba, petitioned the Diet to fund kitchen cars nationwide, arguing, "With its mobility, the kitchen car eradicates the personnel and facilities shortages in the implementation of nutrition improvement activities, making possible proactive nutritional guidance, extending the benefits of government to both the low-income and the isolated, and raising the people's interest in nutritional improvement" (*Dai nijūhachi kai Kokkai Sangiin Shakai Rōdō Iinkai kaigiroku dai san gō* 1958, 17). The committee concluded that with per capita GDP low and the Engel coefficient high, the kitchen cars' low-cost, nutritious meal plans were a welcome contribution to the national economy. Nothing, as one committee member put it, was more important to the nation than nutrition (*Dai nijūhachi kai Sangiin Kokkai Shakai Rōdō Iinkai kaigiroku dai jūni gō* 1958, 19). The kitchen cars' American sponsors considered extending funding for this program when it sunsetted in 1960, but concluded – correctly, as it turns out – that it was self-sustaining.<sup>23</sup> The program was so popular with consumers and both public health and government officials that fourteen prefectures purchased their own buses by the end of 1960; their number increased almost tenfold after American funding ceased.<sup>24</sup> In 1961, the Japanese government subsidized one-third of the estimated ¥15 million required to manufacture twenty new prefectural kitchen cars, bringing the total to fifty. This number eventually peaked around 110, and included a "kitchen boat" built in 1962 by Nagasaki to access the prefecture's remote islands (Oiso 1963, 6; Japan International Cooperation Agency 2003, 103).

### The post-JNA kitchen cars, 1960-1978

The kitchen cars enjoyed continued popularity especially in rural areas through the 1970s, in part because the program was highly attentive to local needs and circumstances, and in part because the rapid economic growth of the previous decade had been

concentrated in the cities, leaving much of rural Japan relatively untouched in important ways. As a result, among other chronic problems, malnutrition was still a serious problem in many areas of the Japanese countryside. Okayama was typical. Faced with severe malnutrition in rural areas, the prefecture's kitchen cars focused on increasing consumption of "green and yellow vegetables, milk and dairy, and soy, 'the meat of the fields.'" 455  
 A list of popular kitchen car dishes from mid-1960s Okayama includes milk donuts, udon stew, sautéed amaranth leaves with liver, fried meat and vegetables with ketchup, vegetable cream soup, fried soybean fritters, chicken and peanuts in tomato sauce, pak choi with mushrooms and peanuts, and cheese sponge cake (Mori and Hashimoto 2012, 113–14). During these same years, the prefecture's public health center held competitions 460  
 for original, tasty, economical, nutritious foods. Not coincidentally, participants were assigned ingredients that included soy, skim milk, or flour to make dishes at a cost of about ¥20 each. Winning entries included vegetable omelets, sardines wrapped in fried tofu, fried sardine balls, "nutritional bread," and "nutritional fried dumplings." Okayama also began training community organizations to assist with nutritional improvement. 465  
 Many of public health nutritionist Arimoto Shōzō's early recipes used frozen whale meat, one of the few affordable animal protein sources available; when Arimoto made chicken curry for one seminar, participants complained to the prefectural office that chicken was beyond their means. Eggs were similarly rare, expensive, and off the menu in the Okayama countryside (Arimoto 2004, 36–38).<sup>25</sup> 470

Ultimately, the kitchen cars faded from the landscape in the late 1970s and early 1980s, at the tail end of Japan's postwar dietary transformation. Dietary transformation was uneven and differential, however, and the defunding and disappearance of the kitchen cars followed this pattern. While it is impossible to draw direct causal links, American promotional activities apparently contributed to Japan, especially urban Japan, becoming "wheat-conscious" in the 1950s (*The Japan Times* 1957b). In the 1930s, only three in ten Japanese – almost all of them city dwellers – consumed bread habitually, and those almost exclusively for breakfast (Ishige 2011, 162).<sup>26</sup> By the end of the 1950s, one-third of Tokyo's food was wheat based, and four of ten Tokyoites (also three of ten Osakans) ate bread daily. Roughly half of that wheat was supplied by the United States (Anderson 475  
 1954, 2). A decade later, "For urban young married couples, rice is missing from the breakfast table. For them it's toast, hot tea or coffee, and often packaged breakfast cereals" (Hallowell 1967, 11). These numbers fell dramatically in provincial cities and the countryside, where change was much slower, but it did come by the end of the 1970s as the eclectic postwar diet spread across Japan. As that diet took root, public enthusiasm 485  
 for the kitchen cars – and with it the political will to continue funding – faded. Even as early as the 1960s, television programs like NHK's "Today's cuisine" (*Kyō no ryōri*, first broadcast in 1958) were emerging as a cost- and time-effective method of disseminating nutritional information to all corners of Japan, and this appears to have eroded interest in the kitchen cars (Mori and Hashimoto 2012, 111–115). Perhaps the true beginning of the 490  
 end for the kitchen cars came in 1977, when pioneering Tokyo dropped its two kitchen cars from the fiscal 1978 budget.<sup>27</sup> While Toyama prefecture, for instance, rolled out a brand-new kitchen car that same year – a testament to the continued unevenness of economic growth and accompanying cultural changes especially across the urban-rural divide in postwar Japan – the kitchen cars were on their way out for good (Toyamaken 495  
 Chiji Kōhōka 1978, 23).

## Concluding remarks

In 1978, the JNA's vice-chair was asked about the kitchen cars and their influence on the transformation of the national diet over the previous quarter century. Matsutani Mitsuko described American funding largesse as “unbelievable. After all, they bought us a dozen brand-new buses, each costing four-million yen. Plus, they funded the drivers' salaries and gasoline to the tune of ¥600,000 per month, and even made pamphlets for us. I heard it cost upward of ¥100 million over six years.” However, Matsutani flatly denied that the kitchen car was an American propaganda tool. “Its goal was purely national nutritional improvement,” something that all parties agreed on, she insisted. “Promoting wheat-based food and nutritional improvement would naturally lead to increased wheat consumption. Because America understood this, they left operations entirely up to us.” The only “real condition” was to use wheat in at least one dish for each demonstration. Nevertheless, when pressed by her interviewer, Matsutani admitted that the subject of American financing was “taboo” even within her organization (quoted in Takashima 1979, 28–31).

Ōiso was clearer eyed. Like Matsutani, he pushed back on the idea that the kitchen cars had been a one-sided American plot to destroy the Japanese diet. On the other hand, he recognized that the kitchen cars were a propaganda tool—but flipped this on its head to assert unequivocally that they were Japan's own propaganda tool for its own purposes, not the invidious plot of foreign agents. Responding to the same interviewer who questioned Matsutani, Ōiso angrily dismissed any suggestion that he had been duped by the Americans to Japan's detriment. In Ōiso's triumphalist narrative, he was the hero and the kitchen cars an unmitigated success for Japan, which in the 1950s had absolutely needed to improve national nutrition. “If anything,” he grumbled, “I think I did a great job, given that I made the Americans use their money for Japan . . . At first, Baum insisted that we use the money to promote wheat. But when I told him to take the long view, to recognize that as the Japanese diet grew richer people would naturally gravitate to wheat, he gave us the okay.” The kitchen cars were run by and for Japan, Ōiso continued. The fact that nobody realized they were funded by Washington should be all the evidence anyone needed to understand this, he argued, implying that had the program been operated by and for American interests, American influence would have been obvious at the time. However, unlike Matsutani, Ōiso admitted that concealing American involvement had been key to the kitchen car program's success, which he characterized as a master stroke of propaganda. “Real propaganda,” concluded Ōiso, “works without anyone realizing it” (quoted in Takashima 1979, 106).

Perhaps unsurprisingly, Richard Baum's version of this story presented a different picture of the kitchen car program, which he saw as a master stroke of *American* propaganda (and himself as the hero). “I think the initial program of developing kitchen demonstration buses was very effective,” he smiled to an interviewer. According to Baum, “the kitchen demonstration buses became a very good propaganda device because they had loudspeakers and they could move to the village areas. And then there would be prior advertising in the area with the housewives in the area before the bus got there, and the housewives would come out and gather around and learn how to make different wheat foods and then they would get to sample the wheat foods. And they found these very delicious and so they would say ‘*Oishii desu. Mō sukoshi*’ [This is delicious. A little more, please]” (Takashima 1978 8:53–9: 31).

## Notes

1. On Japan's modern and especially postwar dietary transformation and the "invented" nature of the "traditional" Japanese diet, see especially (Cwiertka 2006; Ishige 2011; Smil and Kobayashi 2012). 545
2. The effects of the kitchen cars on the Japanese diet are difficult to disaggregate from other factors influencing dietary transformation. Nevertheless, it is clear that the kitchen cars were partly responsible for changes in the Japanese diet (Nihira 2010, 69 n3).
3. On the early postwar school lunch program, see (Fujihara 2018).
4. Little documentation is available about the Japan Nutrition Association and its history. It appears to have been one of an alphabet soup of ministry-affiliated extragovernmental organizations (*gaikaku dantai*) and other major government-adjacent civil society organizations. For nutrition alone, in 1958 the Health and Welfare Ministry listed the Japan Nutritionist Association, Food and Nutrition Association, Japan Nutrition Promotion Society, National Nutrition Society, and All Japan Food-Life Reform Society, adding an et cetera for good measure (Ministry of Health and Welfare 1958, 36–37). 550 555
5. The history of professional nutritionists in Japan as widely recognized authorities on diet, 1924–1964, is discussed in (Hopson 2019).
6. In a typically blunt summary of several of these advantages, the health ministry nutrition section chief, Ōiso Toshio, wrote: 560  
 Cars can gather comparatively lower class people who need to receive nutrition education. The people who gather at health center when the cooking demonstration or lecture is performed are mostly composed by rather higher class women. The reason why lower people do not come is they mind their poor wearing of clothes and shoes. Women are very much concerned about what they wear and always wanted to be well dressed when they go out in the public (Ōiso 1963, 2). 565
7. More generally, see also (Porter 1999; Laporte 2000; Rogaski 2004; Pomeranz 2005; Lee 2015).
8. Japan's Imperial Government Institute for Nutrition (1920–1940) laid the foundations for a school lunch program after the Kanto earthquake of September 1, 1923. National government involvement began in the 1930s, but wartime shortages forced the program's end in 1944 (Monbushō and Nihon Gakkō Kyūshokukai 1976, 17; Hopson 2019). 570
9. The program was not called "Food for Peace" until 1959, but the signing of PL480 months after Eisenhower's "Atoms for Peace" speech was not coincidental. As a pair, they represented pillars of postwar American foreign policy (Zwigenberg 2012; Zachmann 2015, 70–71). 575
10. Between 1954 and 1959, the United States entered into Title I agreements with 138 nations, Japan included. During that period, PL480 accounted for more than one-fourth of all US agricultural exports, over half of which were Title I exports (Rosenfeld 1974, 17).
11. Despite fears that the influx of cheap American agricultural commodities would harm Japan's farming sector, there were even some supporters within the agriculture ministry. They cited the reinvestment of Title I purchase funds in economic infrastructure development as justification. Ultimately, economic development came without irreparable long-term harm to the domestic agricultural sector (Takashima 1979, 55–61). 580
12. By 1957, Japan was the leading importer of American agricultural products including "cotton, rice, barley, soybeans, tallow, and hides and skins," and was the number two foreign buyer of American wheat. By 1959, Japan imported \$400 million of US agricultural produce per year, making it the largest export market for American farmers (United States Congress 1956, A5474; *The Japan Times* 1957c; Hollowell 1967, 10). From 1955 to 1957, the FAS provided more than 80% of the total \$1,073,717 in funding to promote American agricultural products, while the OWGL supplied 6% and the remainder came from Japanese trade associations. As wheat boosting programs took root, the return on investment increased: roughly \$4.7 million from the FAS and US trade organizations yielded \$1.7 billion in sales 1955–1960 (Neuberger 1957, 710; Hardin and Hesser 1961, 3; "Historical Statistics of Japan" n.d.). 585 590

13. More generally, overreliance on white rice had been a concern for Japanese health and nutrition policymakers, pundits, and scientists since the 1910s, and especially during wartime (Ehara, Ishikawa, and Higashiyotsuyanagi 2009, 276–285; see also Saitō 2015, 48–55; Hopson 2019). 595
14. The three-person team of Eral Pollock, grain-marketing specialist for the USDA’s Foreign Agricultural Service (FAS); Gordon Boals, director of exports for the Millers’ National Federation; and Richard Baum, executive vice-president of the OWGL, spent several months traveling through Asia. 600
15. The League’s first project was in India, a pilot program at Women’s Christian College at Madras, India, to teach the nutritional value of wheat foods in a region that was highly rice-dependent and suffering widespread malnutrition (Neuberger 1957, 704). 605
16. The Food Life Improvement Association trained bakers and extension agents to use and promote wheat, respectively. In addition to operating the kitchen cars, the JNA produced propaganda including posters, pamphlets, and filmstrips to “encourage the young and old alike to eat a balanced diet including wheat foods” (Pollock and Baum 1979, 199).
17. Perhaps the most infamous example of this anti-rice stance was Keiō University medical school professor Hayashi Takashi’s 1958 diatribe about optimal mental performance. In a chapter on the role of nutrition, Hayashi argued that “rice-eating nations will be one step behind (159).” This “rice makes you stupid” theory was also adopted by the JNA as part of its campaign of nutritional reform (Takashima 1978). 610
18. The first postwar US trade fair booth, at the April 1956 International Trade Fair in Osaka, “was literally mobbed by crowds of Japanese,” and one hundred police were called in on the final day to keep the throngs from overrunning it (United States Congress 1956, A5474). 615
19. On the prewar origins of the Japanese school lunch program and “nutritional activism” in imperial Japan, see Hopson 2019a. On the school lunch program instituted by the Occupation in 1947, see (Fujihara 2018). 620
20. The Japanese-American Soybean Institute (JASI), founded that year as the American Soybean Institute’s first overseas subsidiary, was funded by profits from PL480 (*The Japan Times* 1957b).
21. The average number of attendees in Okayama for the year 1957 was 167, suggesting that a larger number may have come out in rural Japan than in the cities (Mori and Hashimoto 2012, 109). 625
22. Other days the menu was expanded to four dishes (Komatsu 1962, 30).
23. This same year, Japan “graduated” from PL480 and began to purchase US commodities in dollars (United States Foreign Agricultural Service 1960, 12).
24. According to one source, three prefectures had rolled out their own kitchen cars by 1959, prior to the termination of, and separate from, American funding. The prefectures are not specified (United States Foreign Agricultural Service 1959, 26). 630
25. Postwar nutritionists’ focus on animal protein reflected occupation-era American concerns that a “dearth of animal protein” constituted the major Japanese dietary deficiency (Aldous 2010, 230). 635
26. Wartime Japan experimented with various “breads” as substitutes for rice. Many were unleavened, steamed breads to be made at home. In this sense, though “bread” played a significant role in the wartime diet, the typical yeast-risen loaf was largely off the menu in the first half of the 1940s (Saitō 2015, 57). A typical recipe from 1940 called for wheat flour to be mixed with soy, parched barley, buckwheat, sweet or white potato, maize, or any other grain or cereal flour as available, as well as fishmeal and seaweed meal (*Yomiuri Shimbun* 1940). 640
27. Anti-tuberculosis campaigns, big-budget celebrity events, women’s physical education classes, and more were also defunded (*Yomiuri Shimbun* 1977).
28. It appears the buses were not completely standardized, but these specs are typical (Ōiso 1963, 2). 645
29. Adapted from Japan International Cooperation Agency (2003, 104).

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