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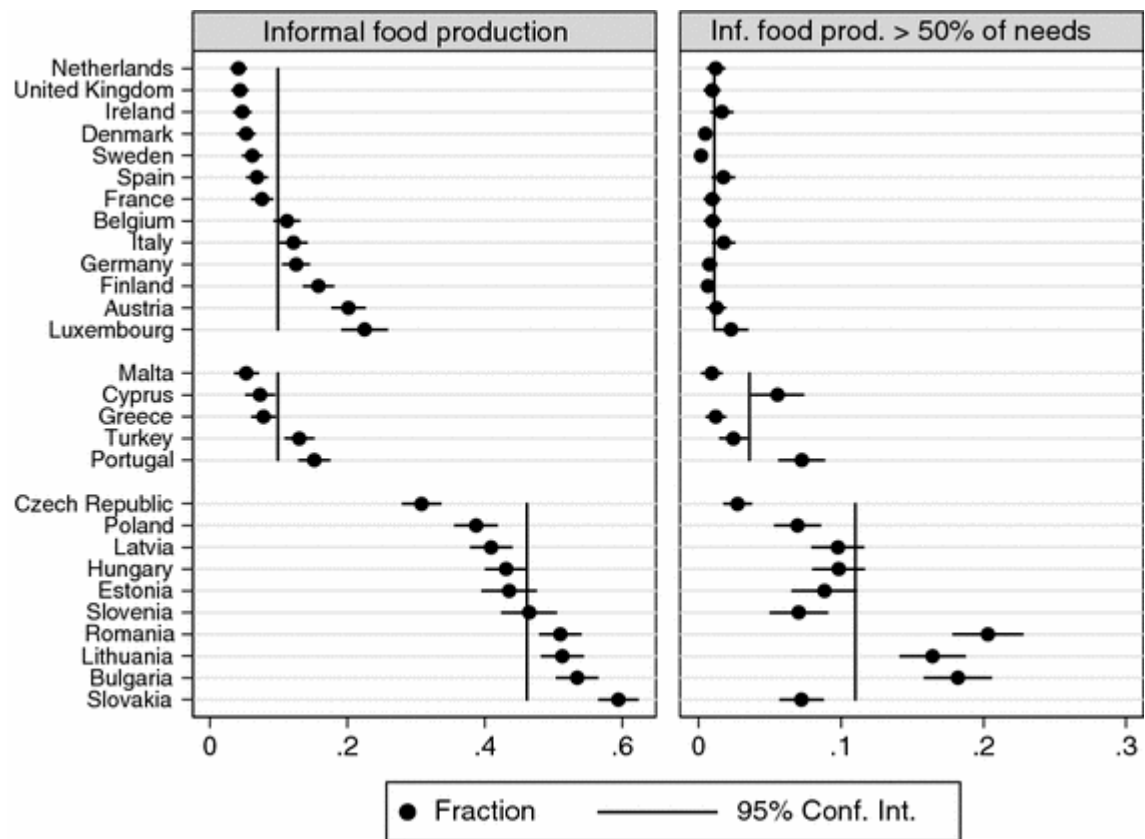
# **Food self-provisioning in Czechia - Beyond Coping Strategy of the Poor: A Response to Alber and Kohler's 'Informal Food Production in the Enlarged European Union' (2008)**

Petr Jehlička, Tomáš Kostelecký and Joe Smith

**Abstract:** Food systems are of increasing interest in both research and policy communities. Surveys of post-socialist countries of Central and Eastern Europe (CEE) show high rates of food self-provisioning. These practices have been explained in terms of being 'coping strategies of the poor'. Alber and Kohler's 'Informal Food Production in the Enlarged European Union' (2008) offers a prominent account of this argument, supported by quantitative data. However evidence from our case study of food self-provisioning in one CEE state - Czechia - contradicts their findings. Newly commissioned survey data, as well as a fresh look at the data they were working from, demonstrate that rather than being motivated by poverty, these widespread practices serve as a hobby and as a way of accessing 'healthy food'. With food self-provisioning becoming an increasingly prominent subject in advanced industrial countries, in terms of both health and environmental policy, we propose that much greater care is taken in researching and interpreting the reasons for differences in food systems. Our findings are that environmentally sustainable and healthy self-provisioning in Czechia is motivated by a range of reasons, and practised by a significant proportion of the population across all social groups. This conclusion questions linear narratives of progress that figure 'western' practices as advanced or complete or automatically desirable, and contributes in a modest way to a decentering of narratives of progress.

## **1 Introduction**

Both academic and policy communities have become more interested in questions about where and why people provide more of their own food given the potential environmental, social and health benefits of these practices. In this paper we wish to respond to arguments advanced in Jens Alber and Ulrich Kohler's (2008) pioneering article on informal food production in European countries (see Figure 1). In their article, Alber and Kohler (2008, p. 114) sought to provide answers to the following two questions: 'How widespread is the informal production of food in the member countries of the European Union, and to what extent is informal food production a coping strategy for making ends meet?' While we applaud their engagement with the increasingly important, yet in the academic literature relatively neglected phenomenon of household food production, we take issue with some significant points underpinning their analysis and question key conclusions concerning informal food production in European post-socialist societies. We suggest that these arguments follow a general pattern of western policy and media discourses concerning post-socialist societies that are freighted with normative assumptions about 'normal' processes of development and 'natural' processes of economic and social 'evolution'.



**Figure 1** Informal food production in European countries in 2003. The left chart depicts proportions of the population who grow some of their food. The right chart depicts proportions of the population who grow more than 50 per cent of their nutrition needs. Source: Alber, J. and Kohler, U., 2008. Informal Food Production in the Enlarged European Union. *Social Indicators Research*, 89 (1), 113-127; Figure 1; reproduced with kind permission from Springer Science+Business Media B.V. **(permission will be obtained)**

We concur with Alber and Kohler’s finding that household food self-provisioning, as we prefer to call the phenomenon, is far more widespread in former socialist countries than in the ‘traditional market economies’ of western Europe. However, drawing on our research into food self-provisioning in Czechia, we find their explanation of the far higher proportion of post-socialist households growing their food than is the case in western ‘traditional market economies’ unconvincing. Alber and Kohler argue that it is an outcome of two factors: of habits developed during the socialist era in response to irregularities of supply, combined with current difficulties in purchasing food at market prices. Similarly, we find problematic their conclusion concerning the diverse ‘social meanings’ of food self-provisioning depending on the context in which it takes place. While in former socialist countries ‘informal food production is a widespread coping strategy [...], it is a recreational activity in the affluent countries of Western Europe’ (Alber and Kohler 2008, p. 114). In this paper we directly address the second and fourth points in Alber and Kohler’s (2008, p. 125) concluding summary:

- [informal household food production] is predominantly done by poor people in [former; our insertion] communist countries, while it is more uniformly done by all income groups in the affluent market economies;

- [informal household food production] mitigates the effects of low income in the post-communist new member states but not in the affluent old member states of the European Union.

In contrast to this account, in this paper, we will show that far from being a coping strategy of the poor, food self-provisioning in the post-socialist context can be a multifaceted activity for which its practitioners (who are quite evenly spread across income groups with the poor slightly underrepresented) have a diversity of reasons for participating in this practice, with hobby/recreation being the most important one.

Drawing on our long-term research into food self-provisioning in one of the European post-socialist countries – the Czech Republic (hereafter referred to as Czechia) – we will seek to show that, as far as food self-provisioning in post-socialist societies is concerned, Alber and Kohler’s explanation does not have the universal validity asserted by the authors. Equally however, due to the limited scope of our Czech case study, we do not claim that our findings are generally applicable to all European post-socialist societies. Instead, we would suggest that, while the large extent of food self-provisioning is a feature that former European socialist countries have in common, the mix of motivations and their relative weight differs among individual countries (and indeed within individual countries) due to their cultural and economic diversity. Before developing the main substantive point of our critique we will address several conceptual issues, inconsistencies and problematic assumptions underlying Alber and Kohler’s approach and arguments. It is worth noting that we view these arguments as aligning with problematic, but in western (EU and North American) policy and media terms, mainstream positions.

## **2 Problematic assumptions**

Alber and Kohler’s binary conceptualisation of food self-provisioning as either a hobby, when it is practised in the context of western affluent societies, or a coping strategy of the poor, when pursued in post-socialist societies, is part of a longer tradition in the academic literature (see, for example, Rose and Tikhomirov 1993 and Seeth et al. 1998) in which the value and social meaning attached to food self-provisioning depends on the social context (Jehlička and Smith 2011). Indeed Alber and Kohler are doing no more than contributing to the mainstream of western academic and policy opinion on the topic. They take a cue directly from Rose and Tikhomirov who claim that food self-provisioning in post-socialist countries was evidence of the processes of demodernisation and dedifferentiation in these societies. Alber and Kohler, perhaps inadvertently, imply homogeneity in the cultural and economic life of post-socialist countries.

There is a longstanding western imaginary of internal homogeneity, expressed in its recent historical figuring as the ‘Second World’ and its characterisation since 1989-1990 as ‘economies in transition’ in the wake of the delayed adoption of ‘the’ market economy. We suggest that all of these definitional moves result from processes of othering. It is part and parcel of a broadly orientalist discourse that assumes an essential difference between Europe and Eastern (i.e. post-socialist) Europe (Kuus 2004). From this perspective European post-socialist societies are perceived as traditional societies that are lagging behind the developed West. As backward

societies, they perpetually need to learn from and to catch up with the West and to modernise themselves following the western model.

Widespread household food production in post-socialist societies offers a perfect reinforcement of this narrative as it provides confirmation of post-socialist societies being backward, traditional and somehow ‘delayed’ by their experience of state socialism. This ideologically informed othering has deeper roots than the Cold War, but that is the contemporary reference point in explaining its force and pervasiveness in western readings of post-socialist life. For these reasons, the notion that food self-provisioning might be understood as a hobby or a valued cultural practice in these social settings is widely considered inadmissible. Hence post-socialist food self-provisioning is viewed by many academic and policy commentators as incompatible with modernity. This interpretation of the phenomenon conforms to the ‘teleology of progress, which connected the division of Europe to the passage of the industrial revolution in the west and encouraged a vision of the east as lagging’ (Stenning and Hörschelmann 2008, p.319). The fact that food self-provisioning takes place outside the market reinforces its image as a backward practice that is out of step with modern societies. Alber and Kohler’s paper again valorises a completely marketised food supply chain, and at the same time devalues non-market – based self-provisioning. By associating it with negative connotations such as ‘shadow economy’ there is a danger that western preoccupations and views of the social world get extended to everywhere else (Outhwaite and Ray 2005, p. 103).

The second problem relates to the fact that while the data available to the two authors provide a descriptive ‘snapshot’ regarding the divergent levels of popularity of food self-provisioning in European countries, these data provide no information on the motivations for such activities. To expand the utility of their data, Alber and Kohler construct a binary assumption concerning the social meaning of food self-provisioning. They assume that household food production can fall in either of the two ‘ideal’ categories, which they use in their analysis as mutually exclusive (although they also refer to a continuum between recreational activity and coping strategy, for example on page 119). According to Alber and Kohler, food self-provisioning can either be a recreational activity (a hobby, like any other hobbies, selected according to individual preferences) or a coping strategy (growing food on account of dire need). In contrast to this dichotomy, on the basis of our empirical research, we would argue that people growing food in the case we have studied closely (Czechia) have a range of reasons for this activity, but ‘dire need’ appears to be almost insignificant. Different people hold different combinations of motivations for growing food.

Third, the conceptualisation of the ‘coping strategy’ shifts as Alber and Kohler develop their argument. On page 114 of their article household food production is referred to as ‘a reaction to difficulties in making ends meet’ and is unequivocally related to the phenomenon of the dependence of the poor on the shadow economy in post-socialist times. The temporal association between the poor and growing food as a coping strategy in post-socialist societies is confirmed on page 125 (the second concluding point quoted in the opening section of this paper) and also on page 120: ‘...informal food production helps people cope with economic hardship...’. In all these instances the authors refer to food self-provisioning as a *contemporaneous* coping strategy deployed mostly by people in former socialist countries in response to

economic difficulties experienced at the time of data collection for Alber and Kohler's research, i.e. in 2003.

However, the meaning of the term 'coping strategy' in the temporal as well as the substantive sense is subtly modified when considered next to the results of the authors' statistical analysis. These do not confirm their economistic expectations concerning the neat distribution of the extent of food self-provisioning according to the level of economic development. By their logic one would anticipate the smallest extent of food self-provisioning in the most affluent countries and the greatest extent in the poorest countries. When it turns out that the extent of food self-provisioning in poorer market economies is considerably smaller than in post-socialist countries with similar levels of economic development (p. 117), Alber and Kohler conclude that 'it is not so much the poverty of a country *per se* that promotes food production as coping strategy, but rather the long-standing experience of a command economy...' (p.121). So, the coping strategy argument is redefined from being a response to the current economic conditions (the low level of economic development and poverty) to a historical experiential factor (past experience of irregularities of supply). In other words, the authors offer an explanation of post-socialist household food production which cannot be supported by the data gathered in 2003 on which their analysis is based.

### **3 Food self-provisioning in post-socialist societies: the product of socialist-era habits and sluggish economies?**

Alber and Kohler justify the differences in the salience of food self-provisioning as coping strategy between different groups of countries with both supply side and demand side considerations. In the former case the stronger tradition of informal food production is explained by the fact that 'citizens in the former command economies had come to cope with irregularities of supply by relying on informal economic activities' (p. 114). They repeat this point at the end of their discussion of the evidence of extensive food self-provisioning in post-socialist societies on page 117. In the latter case, citizens of poorer countries – including post-socialist countries - are less likely to be able to afford purchased food and hence are more dependent on the shadow economy; this is further aggravated by widespread unemployment. In affluent societies, on the other hand, the poor do not need to resort to these strategies as they can 'accommodate their demand for food within the market economy' (p. 114). Let us take the supply and demand side considerations in turn.

#### **3.1 'Supply side' considerations: food self-provisioning as a result of past irregularities of supply?**

The results of Smith and Jehlička's (2007) previous research in Czechia suggested that while food self-provisioning is indeed a widespread activity in Czech society, the fact that in the 2000s more than four in ten Czechs were growing some of their own food cannot be explained simply by the supply side argument, according to which 'citizens in the former command economies had come to cope with irregularities of supply by relying on informal economic activities' (Alber and Kohler 2008, p. 114). Their conclusion is problematic on several accounts. First, food self-provisioning pre-

dates the post-WWII socialist period. In the inter-war period, i.e. in the pre-socialist era, food self-provisioning on allotments was a government strategy aimed at securing a better diet at lower costs amongst poorer, i.e. mainly working class sections of society in many European countries (including the UK, Germany, Austria and Poland) (e.g. Bellows 2004). So, informal food production was established as a state-supported strategy to support the nutrition of poorer sections of society *before* state socialism. It may be the case that during the post-WWII period socialist states supported food self-provisioning in a more systematic way (Bellows 2004) than the western ones, however laws supporting food self-provisioning, such as, for example, laws protecting allotments, were in place in a number of capitalist countries.

Second, the coping argument is based on the assumption that citizens in all former socialist countries were faced with irregularities of supply of food most or all of the time. Alber and Kohler's analysis provides no quantitative data supporting this claim as their analyses are based only on data gathered in 2003. Further, this historical experience apparently led many citizens of former socialist countries to maintain this habit well into the post-socialist period. In our view this is an untenable assumption. European state socialism was not a homogenous model applied and working universally in all socialist countries. While in some countries the supply of food was indeed unreliable and the range of foods available in shops limited even during the final decade of state socialism (e.g. Romania, Poland), other countries did not experience food shortages and irregularities of supply once the effects of war economies (experienced in all European countries) were overcome by the early 1950s (East Germany, Czechoslovakia, Hungary). Third, the authors do not address the question of why would people's behaviour in former socialist countries would still be determined to such an extent by their socialist era experiences 14 years after socialism's collapse.

### **3.2 'Demand side': too poor to buy food at market prices?**

Although Alber and Kohler (2008, p. 117) find that 'the degree of economic development of [a given country; our insertion] seems to have little effect' [on the extent of household food production in European countries] and that 'difficulties to purchase foodstuffs at market prices alone do not necessarily bear informal food production', they maintain their view that food self-provisioning in post-socialist societies is related to poverty – if not in terms of these countries having GDP per capita below the European mean, then at least in terms of poor groups within these societies. One of Alber and Kohler's (2008, p. 118) central assumptions supporting the claim that food self-provisioning is a coping strategy is that the decreased income of the retired and unemployed makes these groups susceptible to adopting this strategy. The association of household food production with 'widespread unemployment' is also articulated on page 114. We set out to investigate this relationship using the same data on which Alber and Kohler based their arguments.

On the aggregate level – when the data from all European countries are pooled together - the statistical relationships between the level of unemployment and the percentage of people who were involved in food self-provisioning indeed existed in 2003 (see Table 1). There is a positive correlation (Pearson  $r = 0,55$ ) between the unemployment rate and percentage of people who produce their own food.

**Table 1** Unemployment rate and the proportion of people involved in food self-provisioning in European countries in 2003.

Country	GDP per cap (PPP) 2003	Unemployment rate 2003	Informal food production 2003
Netherlands	129	4,2	5
United Kingdom	122	5	5
Ireland	141	4,6	6
Denmark	124	5,4	6
Sweden	124	6,6	7
Spain	101	11,1	8
France	112	9	9
Belgium	123	8,2	11
Germany	116	9,3	12
Italy	111	8,4	12
Finland	112	9	16
Austria	127	4,3	20
Luxembourg	247	3,8	22
Malta	78	7,6	5
Greece	93	9,7	6,4
Cyprus	89	4,1	7,3
Turkey	36	9,2*	12,5
Portugal	79	6,4	14,9
Czech Republic	73	7,8	30
Poland	49	19,7	39
Latvia	43	10,5	40
Hungary	63	5,9	41
Estonia	54	10	41
Slovenia	83	6,7	44
Lithuania	49	12,5	51
Romania	31	7	51
Bulgaria	34	13,7	53
Slovakia	55	17,6	59

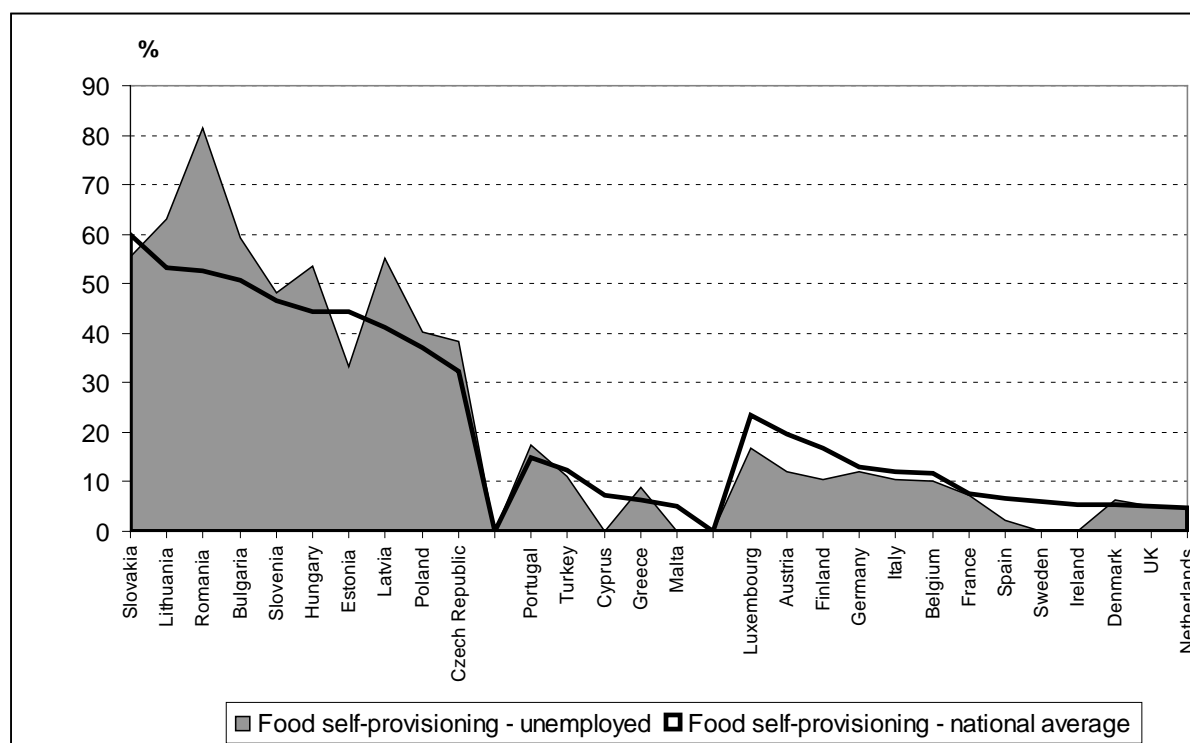
Sources: GDP - Eurostat, unemployment rate - Labour Force Survey (published by Eurostat), Informal food production - the European Quality Life Survey 2003 (data from <http://www.esds.ac.uk/International/access/eurofound.asp>)

Note: Unemployment rate in Turkey refers to year 2005.

Alber and Kohler claim (2008, p. 114) that '[o]n the demand side, citizens of poorer countries are more likely to have difficulties purchasing foodstuff at market prices, *especially if there is widespread unemployment*' [our emphasis]. This sentence suggests that in Alber and Kohler's view the unemployed are inclined to resort to food self-provisioning to meet their needs. The examination of the individual data from the European Quality of Life Survey (2003) used in Alber and Kohler's analysis, however, does not support the idea that food self-provisioning is related to unemployment at the level of individual respondents. The percentage of the



unemployed who produce their own food is generally similar to the percentage of food self-producers in the general population (see Figure 2).



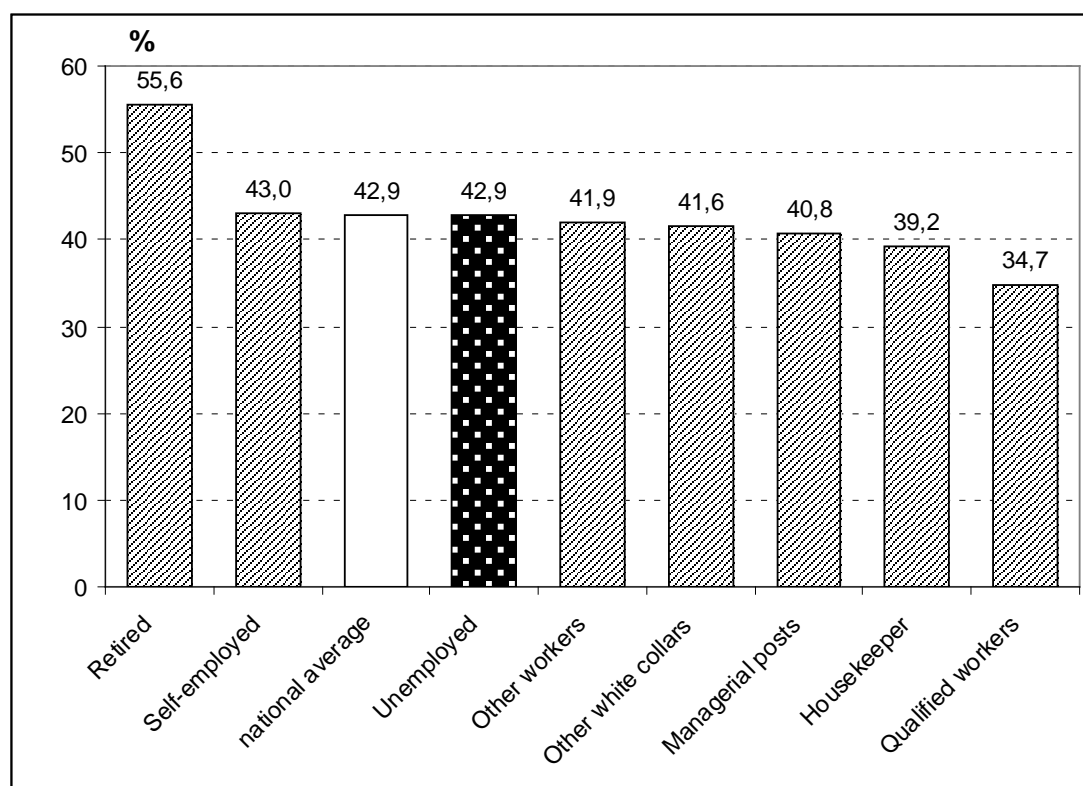
**Figure 2** The percentage of food self-provisioners among the unemployed compared to the percentage of food self-provisioners in the general population.

Source: authors' computation based on the data from the European Quality of Life Survey (2003)

When the situation in the post-socialist countries is analysed in detail the results of the analyses are quite straightforward: in most countries (Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, Poland, Slovakia, and Slovenia) there is no statistically significant difference<sup>1</sup> between the share of food self-provisioners among the unemployed on the one hand and (self)employed, retired and homemakers on the other. In two post-socialist countries the share of food self-provisioners among the unemployed is even lower than the national average (in Estonia where the percentage of food self-provisioners among the unemployed is 33 per cent while the national average is 42 per cent; similarly in Slovakia where 56 per cent of the unemployed produce their own food in contrast with the national average of 60 per cent of food self-provisioners). There are only two countries in which food self-provisioning is significantly more frequent among the unemployed than among other groups. In Romania the share of food self-producers among the unemployed (81 per cent) is significantly higher than that among the employed and self-employed (34 per cent) or retired (58 per cent). In Latvia, the percentage of food self-provisioners among the unemployed (55 per cent) is significantly higher than that among the employed and self-employed (34 per cent).

<sup>1</sup> Statistical significance of the group differences were tested by Tamhane Post Hoc Test (Analysis of Variance, procedure ONEWAY from SPSS 15.0 statistical package). Differences referred as "statistically significant" in the text are significant at  $p < 0.05$  significance level.

The most recent data about food self-provisioning in Czechia (CVVM, 2010) also do not support the idea that self-provisioning is more frequent among the unemployed than among other social groups (see Figure 3). In fact, there is no statistically significant difference between the unemployed and any other category of respondents.



**Figure 3** The share of food self-producers within different social groups in the Czech Republic in 2010. Source: authors' computations from the data gathered by the Centre for the Research of Public Opinion, 2010.

#### 4 The social meaning of Czech household food production: hobby and recreation

Alber and Kohler's guiding hypothesis, which they consider confirmed on page 121, is that unlike the more affluent societies, in which informal food production has the social meaning of a recreational or hobby activity, in post-socialist countries it is a coping strategy. In an attempt to confirm this hypothesis, Alber and Kohler (2008, p. 115) formulate their 'test implications' in the following way:

- (a) If informal food production is a coping strategy, it will be more widespread among poor people than among rich people.
- (b) If informal food production is a recreational activity, it will be more or less equally distributed among social strata.<sup>2</sup>

Then they continue:

<sup>2</sup> In the footnote attached to the second sentence they further explain that the test implication b) is valid "at least if we assume leisure time and the time cost of various recreational activities to be evenly distributed".

‘These first two implications rest on the assumption that growing food as a coping strategy is forced by dire need, whereas hobbies are selected according to individual preferences. Although individual preferences might be socially structured to some degree, there is no direct causal link from the socio-economic position to a preference for growing food. The correlation between income and informal food production should therefore be much larger if it follows a coping strategy logic than an individual preference logic.’

Empirical testing of Alber and Kohler’s ‘test implications’ relies on whether their assumptions are valid. However, they do not provide any evidence to support the validity of those assumptions. The first problem is their claim concerning the formation of hobbies. Although the two authors admit that ‘individual preferences might be socially structured to some degree’ they claim, at the same time, that ‘hobbies are selected according to individual preferences’ (Alber and Kohler 2008, p. 115).

A research project on hobbies recently conducted in Czechia indicates that there are hobbies that are likely to be selected according to individual preferences but also hobbies that are clearly socially structured (Špaček and Šafr 2010). This empirical study considers the relationships between leisure time, preferences for different hobbies and social stratification. It shows that even in Czechia, with its exceptionally low level of social inequality (Večerník 2009), people belonging to different social groups have dramatically different preferences concerning their hobbies. A good illustration of these differences is the participation of people with diverse social statuses in different sport activities. Some sports are relatively ‘egalitarian’ and may well be selected simply according to individual preferences. Football, for example, is a cheap activity and hence it is not surprising that football is played by similar proportions of respondents from all social classes. On the other hand, down-hill skiing, which is considerably more expensive, is seven times more frequent among people belonging to the upper stratum than people belonging to the lower stratum (Špaček and Šafr 2010).

We would argue, therefore, that it is not obvious that ‘hobbies are selected according to individual preferences’. If people’s choice of some sports as hobbies is socially determined, the question arises whether the preference for food self-provisioning as a hobby may be socially determined too. We suspect that the relationships between position in the social structure and people’s inclination to select food self-provisioning as a hobby is not linear. To be able to engage in food self-provisioning as a hobby one has to have access to land suitable for food production. In Czech society the poorest people are less likely to own family houses, summer houses, gardens or allotments than people from more affluent segments of society. Thus, even if the poorest have theoretically more reasons than the rest of society to produce their own food as a coping strategy, they may have fewer opportunities to do so. However, once somebody has access to land where food can be produced, they could easily choose food self-provisioning as a hobby as it is an affordable activity. The relatively low costs connected with growing food can in most cases be easily compensated by benefits incurred from the produce. The richest are more likely than others to be owners of family houses, summer houses, gardens or allotments, but they may prefer more expensive (and hence more status enhancing) hobbies than food self-provisioning. Thus, we would assume that in a highly urbanised country like Czechia,

where the most substantial share of poor people live in cities, food self-provisioning would be more frequent among middle income groups (with access to land) and less frequent among both the poorest (with limited access to land) and the richest (with access to land but at the same time with preferences for more trend driven and expensive hobbies).

To test such a hypothesis we performed logistic regression using the data from the representative national survey that was commissioned by the authors in 2010<sup>3</sup>. The dependent variable was binary – respondents who said ‘Yes’ to the questions regarding whether they use garden, field or orchard for growing food were coded as food self-provisioners. The independent variable was household income<sup>4</sup> measured in quartiles. The control variables included gender and age of the respondent, population size of municipality (four categories), employment status, education and marital status. As our main aim is to compare results of our analyses with the results presented by Alber and Kohler in their article, we follow their analytical design<sup>5</sup>. In Table 2 we first present the model without control variables and then the model with control variables. The results of our modelling are presented in a similar way to Alber and Kohler. For each model we present the unstandardised regression coefficients<sup>6</sup> for each independent variable included in the model, Nagelkerke Pseudo R-Square which approximately measures the variability in the dependent variable that is explained by a model and the overall sample size N. Additionally we also provide readers with the information about the number of cases within each category of the independent variables (n).

The basic model suggests that the poorest households produce their own food less frequently than people who belong to either lower middle or upper middle income groups, yet they are more often food self-provisioners than the richest households. It is worth noting, however, that the differences are not very high and they were not statistically significant in the model. When statistical effects of age, gender, size of municipality, employment status, education and marital status are controlled for

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<sup>3</sup> Data were collected by the Centre for Public Opinion Research of the Institute of Sociology of the Academy of sciences of the Czech Republic (CVVM). Number of respondents: N = 1024. Sampling method: quota sampling. Data are available through Sociological Data Archive of the Institute of Sociology (<http://archiv.soc.cas.cz/en/>).

<sup>4</sup> To compare incomes of households of different sizes and compositions we divided total household incomes by household size measured by ‘OECD-modified equivalence scale’ that assigns a value of 1 to the household head, value of 0.5 to each additional adult member and value of 0.3 to each child.

<sup>5</sup> Following Alber and Kohler we concentrate primarily on modeling the effect of income of food self-provisioning. The other independent variables serve us as only the control variables. In this article we are not interested in determining which independent variables are the most influential predictors of whether people are food self-provisioners or not. That is why we do not display full range of potential model results.

<sup>6</sup> Significantly positive value of unstandardised regression coefficient indicates increased likelihood of food self-provisioning in given category of respondents with respect to the reference category. Significantly negative value of unstandardised regression coefficient indicates decreased likelihood of food self-provisioning in given category of respondents with respect to the reference category.

(Model 2), the poorest households become the least frequent producers of their own food. The most frequent producers of their food are neither the poor nor the rich, but people belonging to 3<sup>rd</sup> income quartile. Even after the inclusion of control variables the differences among households belonging to various income groups remain quite low, which is consistent with Jehlička and Smith (2011) claims that Czech food self-provisioning is a socially inclusive activity. We should also point out that only a few control variables significantly affected the dependent variable. In fact, controlling for the effects of the other variables the most relevant predictors of occurrence of food self-provisioning are (not surprisingly) the age – older people tend to be food self-provisioners more frequently than younger people – and the size of municipality – people living in rural settlements and in small to medium sized towns grow their own food more often than people living in large cities and Prague, as they have better access to land. In any case, the results of the data analysis suggest that in Czechia food self-provisioning is an affordable hobby for older members of middle classes living outside large cities rather more than a coping strategy of the poor.

**Table 2** Logistic regression models of food self-provisioning in the Czech Republic in 2010.

	Food self-provisioning in the Czech Republic			
	Model (1)		Model (2)	
	B	<i>n</i>	B	<i>n</i>
<i>Income (reference: 1<sup>st</sup> quartile)</i>		224		224
2 <sup>nd</sup> quartile	0.17	205	0.19	205
3 <sup>rd</sup> quartile	0.28	225	0.44*	225
4 <sup>th</sup> quartile	-0.31	217	0.18	217
<i>Control variables</i>				
Age			0.03**	871
<i>Gender (reference: women)</i>				451
Men			-0.30	420
<i>Size of municipality (reference: 1000000+)</i>				110
0-4999			1.54**	301
5000-79999			0.69**	330
80000-999999			-0.13	130
<i>Employment status (reference: employed)</i>				504
Student			0.82*	81
Retired			0.19	198
Unemployed			0.48	39
Homemaker			0.10	49
<i>Education (reference: tertiary)</i>				103
Elementary			-0.14	186
Vocational			0.32	339
Secondary			0.06	243
<i>Marital status (reference: Widowed)</i>				69
Single, never married			-0.16	252
Married, living with partner			0.32	437

Divorced		-0.30	113
Intercept	-0.35**	-2.63**	
Nagelkerke Pseudo R-Square	0.016	0.189	
N	1024	1024	

B = unstandardised regression coefficients (\* =  $p < 0.05$ ; \*\* =  $p < 0.01$ ).

But even if food self-provisioning was more frequent among the poor than among the rich *per se* (which is not the case in Czechia), it can hardly be considered proof that ‘informal food production is a coping strategy’. It might simply signal the fact that food self-provisioning is a cheap hobby for the poor. Hence, we would argue that uncovering the motives for self provisioning requires more than information derived indirectly from statistical relations among the incidence of food self-provisioning on the one hand and from socio-economic characteristics of respondents on the other. The results of the 2010 national survey about Czech food self-provisioning provided more insight into the motivation of respondents for growing their food. To identify their reasons for this activity, the respondents were offered nine potential reasons for food self-provisioning and they were asked to choose the three most important for them and rank them from the most important to the third most important. Table 3 displays the options that were offered and the percentages of respondent who chose individual options as their first, second and third choice.

**Table 3** Main motives for food self-provisioning in Czechia in 2010 (only respondents who produce their own food).

Potential motive for food self-provisioning	1 <sup>st</sup> choice (%)	2 <sup>nd</sup> choice (%)	3 <sup>rd</sup> choice (%)
Application of knowledge / know-how	4.9	5.4	8.3
It is a hobby	32.3	14.4	19.4
Continuation of a family tradition	5.6	7.8	8.3
Obtaining food that is not available on the market	0.9	2.1	2.4
Obtaining healthy food	21.5	20.9	13.2
Financial saving	10.5	19.5	17.7
Contribution to environmental protection by production of food with low impact on the environment	0.7	1.9	3.3
Fulfilment of family obligations (help to relatives)	3.3	1.6	2.1
Obtaining fresh food	20.1	26.4	25.3

Source: the authors’ computations based on the data gathered by the Centre for the Research of Public Opinion. 2010.

Table 3 shows that of the nine potential motives for food self-provisioning, the following four were chosen among the top three significantly more frequently than the others (in decreasing order): hobby; fresh food; healthy food; and financial saving. The most frequently mentioned motivation was a hobby – almost one third of respondents choose this reason as their most important motivation. The quality of food - both in terms of healthiness and freshness - was the second and third most important reasons for growing food. Although financial saving was one of the four most frequently mentioned motivations, it was less frequently mentioned than the

other three motivations and, namely, only about 10 per cent of respondents claimed that it is their prime reason for growing their own food.

To test the extent to which various motivations for food self-provisioning are socially conditioned we set up logistic regression models in which dependent variables were food self-provisioning as a hobby (coded as binary variable – distinguishing those who mentioned ‘hobby’ as one of the three top motivations and those who did not), and food self-provisioning as a means to save money (again coded as binary variable distinguishing those who mentioned ‘financial saving’ among the three top motivations from those who did not). The independent variables and controlled variables remained the same as in the previous logistic regression models. The results of the modelling are presented in Table 4. The models suggest that the claim that food self-provisioning is a hobby is more often mentioned by the respondents with middle upper household incomes than by the respondents from households belonging to the lowest income quartile. But the difference was again too small to be statistically significant (regardless of whether the effects of other variables were controlled for or not). In other words, Czech food self-provisioning is considered a *hobby by all people involved in this activity regardless of their financial situation*. We need to point out that only two control variables significantly affected the probability of respondents’ claim that growing food was a hobby. The first relates to gender: men significantly less than women consider food self-provisioning a hobby. The second relates to locale: respondents living in rural areas and small to medium sized towns more often proclaim food self-provisioning a hobby than the inhabitants of Prague (the only Czech city with a population over 1 million).

When the effects of controlled variables are ignored (Model 3), people in the fourth quartile (with the highest incomes) are found significantly less often to consider food self-provisioning as a means to save money than the poorest. What is interesting, however, is the fact that when control variables are included in the model, the difference among respondents determined by the income groups to which they belong is no longer statistically significant. Only three independent variables display some statistically significant effect on the dependent variable – older more often than younger people claim that they grow food to save money, respondents living in small rural municipalities (up to 5000 inhabitants) mention saving money more frequently than respondents from Prague, and people with vocational education (skilled blue collar workers) more often mention this motive than people with tertiary education. Thus, even the data about self-proclaimed financial motives for food self-provisioning generally do not support the idea that the food self-provisioning is a coping strategy of the poor.

**Table 4** Logistic regression models of selected motives for food self-provisioning in the Czech Republic in 2010

	Food self-provisioning as a hobby			Food self-provisioning as a means to save money		
	Model (1)	Model (2)	n	Model (3)	Model (4)	n
	B	B		B	B	
<i>Income (reference: 1<sup>st</sup> quartile)</i>			224			224
2 <sup>nd</sup> quartile	0.39	0.25	205	-0.14	-0.20	205
3 <sup>rd</sup> quartile	0.40	0.46	226	-0.13	0.04	226

4 <sup>th</sup> quartile	0.04	0.43	218	-0.78**	-0.26	218
<i>Control variables</i>						
Age		0.02	873		0.03*	873
<i>Gender (reference: women)</i>						
Men		-0.50**	421		-0.06	421
<i>Size of municipality (reference: 1000000+)</i>						
0-4999		0.90**	301		1.07**	301
5000-79999		0.57*	330		0.48.	330
80000-999999		-0.11	130		-0.15	112
<i>Employment status (reference: employed)</i>						
Student		0.41	81		0.64	81
Retired		0.27	198		0.26	198
Unemployed		0.18	39		0.51	39
Homemaker		-0.01	49		0.61	49
<i>Education (reference: tertiary)</i>						
Elementary		0.34	186		0.31	186
Vocational		0.57	339		0.71*	339
Secondary		0.50	244		0.47	244
<i>Marital status (reference: Widowed)</i>						
Single. never married		-0.59	252		-0.38	252
Married. living with partner		0.29	438		-0.01	438
Divorced		-0.25	114		-0.35	114
Intercept	-1.19	-2.89		-1.19	-3.71	
Nagelkerke Pseudo R-Square	0.010	0.144		0.020	0.135	
N	1024	1024		1024	1024	

B = unstandardised regression coefficients (\* =  $p < 0.05$ ; \*\* =  $p < 0.01$ )

Further evidence against the argument that food self-provisioning is associated with poverty is provided in Table 5. Although the income of Czech citizens grew significantly while their expenditure on food decreased between 2003, when Alber and Kohler collected their data, and 2010 when CVVM conducted the national survey on food self-provisioning, the proportion of Czechs growing their food increased.

**Table 5:** Proportion of the population growing food, the mean monthly income and the relative proportion of household expenditure on food and non-alcoholic beverages in Czechia in 2003 and 2010.

Year	Mean monthly income per person in employment	Relative proportion of household expenditure on food and non-alcoholic beverages	Proportion of Czech population growing food
2003	16,430 CZK (516 EUR; 582 USD)	21.2%	30% <sup>a)</sup> 41% <sup>b)</sup> (2004)



<b>2010</b>	23,797 CZK (941 EUR, 1,245 USD)	19.3%	43% <sup>c)</sup>
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Sources: income – Czech Statistical Office (2011a); household expenditure on food beverages - Czech Statistical Office (2004 and 2011b); proportion of population growing food – <sup>a)</sup> Alber & Kohler (2008); <sup>b)</sup> CVVM (2004); <sup>c)</sup> CVVM (2010).

The Czech case does not support Alber and Kohler’s general claim about household food production in post-socialist societies being a coping strategy of low income groups driven by dire needs. We have shown that in Czechia food self-provisioning is an activity in which people engage for multiple reasons with ‘hobby’ being the most important motivation. Financial saving is only the fourth most important reason why Czech food self-provisioners grow food. This finding corresponds with the results of Smith and Rochovská’s (2007) research conducted on food self-provisioning in poorer urban households in Bratislava, Slovakia. They concluded that these practices were not driven primarily by economic reasons, whether during the socialist or post-socialist period, and that these practices were strongly culturally inflected.

On the basis of our analysis of food self-provisioning in Czechia we would go even further to extend the argument in this direction. Far from being an activity of the poor and unemployed, Czech household production is a hobby enjoyed by many in all social groups, although, in direct contradiction to Alber and Kohler’s finding, the proportion of the poorest households growing their own food is slightly smaller than that in lower and upper middle income households.

## 5 Conclusion

Alber and Kohler’s 2008 article is an important contribution to the increasingly topical discussion on household food production – it highlights the vast differences in the popularity of food self-provisioning between European post-socialist and ‘traditional western market economies’ and shows that the differences among states are not explained primarily by their level of economic development. Despite this finding, Alber and Kohler reinforce associations between: eastern European practices and poverty and; Western European practices and hobbying.

Using food self-provisioning in Czechia as a case study this paper has presented data that leads to very different conclusions to those arrived at by Alber and Kohler. We have found that household food production in Czechia is not predominantly practised by poor people, but is an activity more uniformly followed across all income groups. Hence, Czech food self-provisioning is not a coping strategy aimed at mitigating the effects of low income. Our findings are that environmentally sustainable and healthy self-provisioning in Czechia are motivated by a range of reasons, and practised by a significant proportion of the population across all social groups. This conclusion questions linear narratives of economic development that figure ‘western’ practices as advanced or complete or as desirable end points. Hence the paper contributes in a modest way to a decentring of narratives of ‘progress’.

Food self-provisioning is becoming an increasingly prominent subject in advanced industrial countries in terms of both health and environmental policy. We have found

our dialogue with Alber and Kohler's paper productive and challenging. Nevertheless, we conclude that it is rooted in a mainstream western academic and policy worldview that is open to challenge. That challenge is not simply a matter of academic interest. If post-socialist societies are continuing to sustain a substantial portion of their food systems in ways that bring health, environmental and social benefits (Jehlička and Smith 2012) then it is of great importance to advanced industrial nations as a whole to understand why. We sense that there are under-acknowledged normative commitments at play that are rooted in a view of post-socialist societies as being in an 'incomplete' state of economic development. This situation is hindering the sharing of policy lessons about the support of food self-provisioning that would see valuable and timely lessons flowing from East to West.

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## References

Alber, J., & Kohler, U. (2008). Informal Food Production in the Enlarged European Union, *Social Indicators Research*, 89(1), 113-127.

Bellows, A.C. (2004). One hundred years of allotment gardens in Poland, *Food & Foodways*, 12, 247-276.

Jehlička, P., & Smith, J. (2011). An Unsustainable State: Contrasting Food Practices and State Policies in the Czech Republic, *Geoforum*, 42(3), 362–372.

Jehlička, P., & Smith, J. (2012). Shelf Life: Post-socialism, Food and the Politics of Sustainable Consumption. In R. Tyszczyk, J. Smith, N. Clark & M. Butcher (Eds.), *Atlas: Geography, Architecture and Change in an Interdependent World* (pp. 56–63). London: Black Dog Publishing.

Kuus, M. (2004). Europe's eastern expansion and the reinscription of otherness in East-Central Europe, *Progress in Human Geography*, 28(4), 472-489.

Outhwaite, W., & Ray, L. (2005). *Social Theory and Postcommunism*. Oxford: Blackwell.

Rose, R., & Tikhomirov, Y. (1993). Who grows food in Russia and Eastern Europe? *Post-Soviet Geography*, 34(2), 111-126.

Seeth, H.T., Chachnov, S., & Surinov, A. (1998). Russian Poverty: Muddling Through Economic Transition with Garden Plots, *World Development*, 26(9), 1611-1624.

Smith, A., & Rochovská, A. (2007). Domesticating neo-liberalism: Everyday lives and the geographies of post-socialist transformations, *Geoforum*, 38(6), 1163-1178.

Smith, J., & Jehlička, P. (2007). Stories around food, politics and change in Poland and the Czech Republic, *Transactions of the Institute of British Geographers*, 32(3), 395-410.

Špaček, O., & Šafr, J. (2010). Volný čas, sport a kulturní vkus: rozdíly podle společenského postavení. In H. Maříková, T. Kostecký, T. Lebeda, & M. Škodová (eds.): *Jaká je naše společnost? Otázky, které si často klademe....* Praha: Sociologické nakladatelství. 81–99.

Stenning, A., & Hörschelmann, K. (2008). History, geography and difference in the post-socialist world: Or, do we still need post-socialism? *Antipode*, 40(2), 312-335.

Večerník, J. (2009). *Czech society in the 2000s: a report on socio-economic policies and structures*. Praha: Academia.

#### **Data sources:**

Česká národní banka (Czech National Bank) (2011). Kurzy devizového trhu - měsíční kumulované průměry.. Praha: Česká národní banka.

Český statistický úřad (Czech Statistical Office) (2004). Příjmy, vydání a spotřeba domácností: statistiky rodinných účtů za rok 2003. Prague: Czech Statistical Office..

Český statistický úřad (Czech Statistical Office) (2011a). Průměrná hrubá měsíční mzda - na přepočtené počty (podnikatelská, nepodnikatelská sféra). Prague: Czech Statistical Office.

Český statistický úřad (Czech Statistical Office) (2011b). Vydání a spotřeba domácností: statistiky rodinných účtů za rok 2010. Prague: Czech Statistical Office.