

# Food at Work: a Case Study of Slovenia

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Good nutrition, along with other vital occupational safety and health issues, is the foundation of workplace productivity and safety. It is well documented that unhealthy foods can lead to obesity and chronic diseases. Many workers consume a significant portion of their daily food consumption away from home. Foods consumed at cafeterias, from vending machines and in other food-service establishments are often not as nutritious or healthy as foods prepared at home. Making healthy food available at work is one way to promote healthy eating. Our paper presents workplace nutrition solutions in different types of Slovenian companies. The study considers: (i) lunch time and breaks, (ii) healthy food at work, coffee, cigarettes, (iii) possibilities of maintaining diets at work, (iv) working ability after lunch and (v) certain social aspects, such as discussion topics during breaks.

**Key words:** food, workplace, health, discussions during breaks, social classes, Slovenia

## Prehranjevanje Slovencev med delom

Prehrana na delovnem mestu je pomemben dejavnik, ki zagotavlja zdravje in s tem zadovoljstvo ter produktivnost zaposlenih. V članku predstavljamo rezultate raziskave, katero smo opravili na vzorcu 826 odraslih zaposlenih oseb v Sloveniji. Raziskovali smo: koliko časa imajo zaposleni na voljo za malico, kako zdravo se prehranjujejo, če kadijo, ipd. Zanimali so nas tudi nekateri sociološki vidiki odmorov (npr.: v čigavi družbi ljudje malicajo). Zelo velik delež zaposlenih (60.5%) ima za malico odmor, dolg 15-30 minut. Dostopnost toplega obroka pa je zelo različna. V članku predstavljamo prehranjevalne navade med delovnim časom-primerjamo ljudi iz različnih družbenih razredov. Predstavljamo tudi ugotovitve o tem, s kom se ljudje med odmorom za malico družijo, s kom se pogovarjajo in o čem. Zanimiva je ugotovitev, da se ljudje v službi med malico le redko pogovarjajo o svojih zasebnih problemih.

**Ključne besede:** prehrana, odmor, delovno mesto, malica

## 1 Introduction

The basic human rights to safe drinking water and freedom from hunger are fundamental, and yet all too often ignored in the context of rights at work (Wanjek, 2005:1). While it is most important for an employer to provide a safe and healthy workplace, it is also important to encourage healthy lifestyles among employees (CCOHS, 2006). Healthy eating is a great first step. Promoting healthy eating is a part of promoting overall health in the workplace (Randall, 2004). Unfortunately, employers do not pay much attention to the food their employees eat. Too often the workplace meal programme is either an afterthought or not even considered by employers at all. Work, instead of accommodating proper nutrition, is frequently a hindrance. Employees sometimes have no time to eat, no place to eat or no money to purchase food. Some are unable to consume enough energy [Joules] to perform the strenuous work expected of them (Wanjek, 2005:3). Poor nutri-

tion is associated with increased risk of conditions such as heart disease, diabetes, osteoporosis, compromised oral health and some cancers. It is also associated with obesity (Randall, 2004; Heber, 2005). Many employees are hungry at work and can get sick. The result is a staggering blow to productivity and health.

Employers benefit from well-nourished employees through increased work productivity and reduction of absenteeism. By paying more attention to employees' food at work and healthy eating, companies could: (i) increase motivation, (ii) help to build a better working atmosphere, leading to more flexibility and better communication, (iii) increase quality, innovation and creativity and (iv) improve the image of the company.

Decisions on food solutions might come down to budget and space (Wanjek, 2005:53) and the type of organization. Micro enterprises with approximately one to five employees often use kitchenettes. Here, employees can store packed meals in a refrigerator and warm food in a microwave. A small dining area enables workers to leave

their work areas for a little stress relief. Small enterprises with approximately five to 25 employees usually use kitchenettes or meal vouchers, or cater food from a local vendor. Medium-sized enterprises have approximately 25 to 100 employees, too few for a canteen to be viable. They use meal vouchers or mess rooms. In mess rooms employees eat food prepared elsewhere and brought in by local vendors or caterers for daily consumption. Large enterprises with more than 100 employees often use meal vouchers, mess rooms or have their own canteens. In a canteen, freshly prepared hot food is served from behind a counter or at self-served buffets. Much of what applies to micro and small enterprises also applies to the informal sector.

In this paper, the most common food solutions in Slovenian companies are presented. The eating habits of employees and their possibilities for healthy nutrition and diets in the workplace are described. The paper also concerns coffee and cigarette breaks, and the way that people

come back to work after lunch. Certain social elements are involved in the research, such as the dependence of eating habits on social class appurtenance, various discussion topics during breaks, and others.

## 2 Method

### *Sample*

A sample of 826 adult employees in Slovenia – 376 males (45.5%) and 450 (54.5%) females – participated in the study. Ages ranged from 18 to 60 years, with a mean of 35 years and 9 months ( $M=35.76$  and  $SD=10.232$ ). The criteria for sample selection were: (1) the person must be at least 18 years old and (2) the person must be employed or working via a student service. The final formal educational structure of the random sample is shown in Table 1.

Table 1. Educational structure of the sample

Education degree	I	II	III	IV	V	VI	VII	VII+
N	11	9	27	128	402	77	155	17
%	1.3	1.1	3.3	15.5	48.7	9.3	18.8	2.1

Note:  $N=826$ . Educational degrees: (I) did not finish primary school, (II) finished primary school (8 years), (III) secondary school (2 years), (IV) secondary school (3 years), (V) secondary school (4 years), (VI) two year study, (VII) higher education and (VII+) master's degree, doctorate degree.

Table 2. Survey participants from different types of organizations

Type of organization	Frequency	Percent
Micro (1–5 employees)	102	12.3
Small (5–25 employees)	177	21.4
Middle-sized (25–100 employees)	166	20.1
Large (more than 100 employees)	381	46.1
Total	826	100.0

The sample was extracted from micro, small, medium-sized and large enterprises. The proportion can be seen in Table 2.

For social classification, the Goldthorpe class scheme was used (see Breen, 2005) with a small adjustment. Class IVc (farmers) was omitted and class VIII was added (students working via a student service). The class structure of the sample is shown in Table 3.

### *Instrument*

The questionnaire contained 28 closed questions referring to: (i) general data (age, gender, education, social class appurtenance), (ii) workplace nutrition solutions,

(iii) lunch time, breaks, (iv) healthy food, coffee, cigarettes, (v) diets, (vi) working ability after lunch and (vii) social aspects, such as discussions during breaks.

## 3 Results and discussion

### *Workplace nutrition solutions*

Workers need nutritious foods to remain healthy and productive. The workplace, where workers gather day after day, is the logical locale to provide nutritious foods to curb hunger and lower the risk of disease (Wanijek, 2005:11). Employees are provided with access to nutritio-

Table 3. Class structure in Slovenia

Goldthorpe class	Description	N	%
I	Higher-grade professionals, administrators and officials; managers in large industrial establishments; large proprietors	25	3.0
II	Lower-grade professionals, administrators and officials; higher-grade technicians; managers in small industrial establishments; supervisors of non-manual employees	116	14.0
IIIa	Routine non-manual employees, higher grade (administration and commerce)	317	38.4
IIIb	Routine non-manual employees, lower grade (sales and services)	128	15.5
IVa	Small proprietors, artisans, etc., with employees	21	2.5
IVb	Small proprietors, artisans, etc., without employees	22	2.7
V	Lower-grade technicians; supervisors of manual workers	57	6.9
VI	Skilled manual workers	35	4.2
VIIa	Semi-skilled and unskilled manual workers (not in agriculture)	18	2.2
VIIb	Semi-skilled and unskilled manual workers in agriculture	7	0.8
VIII	Workers via student service	80	9.7

nal foods through canteens, meal vouchers, kitchenettes, mess rooms, vending machines and others. In Slovenia, regardless of the type of the company, mess rooms are mostly used as a nutrition solution at work (Table 4). Canteens are in third place, whereas meal vouchers are only used now and then.

We assume that mess rooms and kitchenettes are more frequently used because they are cheaper than canteens or meal vouchers. They require less space and are easier to clean and maintain. The nutrition solutions depend on the type of the organization. Almost half of the large organizations (48%) use canteens. In smaller organizations canteens are less in use. Large organizations offer more nutrition solutions simultaneously (for instance, both kitchenette and canteen).

A positive correlation between the type of organization and the use of water, drinks and food vending machines was identified. The use of vending machines is

more frequent in large organizations than in smaller ones. Although 55.3% of Slovenian companies offer water dispensers (free of charge), 54.7% drinks dispensers and 27.4% food vending machines, these automats are very rarely used. 49.5% of employees never use water dispensers, 53.0% never use drinks dispensers and 78.6% never use food vending machines. See more in Table 5.

#### *Lunchtime and coffee breaks*

The majority (60.5%) of Slovenian employees have 30 minutes for lunch, which is statutorily defined. Only a small number (3.0%) have less than 15 minutes, and all others have more than 30 minutes or their lunchtime is not determined (Table 6). It is astonishing that a large percentage of employees (60.5%) determine their lunchtimes by themselves. A total of 31.6% have their lunchtimes determined in advance, 5.2% go to lunch when their boss allows and 2.7% have no time for lunch at all.

Table 4. Nutrition solutions used by employees in different types of organization (%)

Type of organization	Mess rooms	Kitchenettes	Canteens
Micro	44.1	29.4	17.6
Small	50.8	44.6	16.4
Middle-sized	62.0	47.6	25.3
Large	67.7	54.6	48.0

Table 5. How often employees use water, drinks or food vending machines (%)

	1	2	3	4	Mean	Std. Deviation
Water dispensers	49.5	11.4	15.0	24.1	2.14	1.262
Drinks dispensers	53.0	21.7	15.6	9.7	1.82	1.021
Food vending machines	78.6	16.5	3.9	1.1	1.27	0.585

Table 6. Lunchtime

Lunchtime	Frequency	Percent
Less than 15 min	25	3.0
30 min	500	60.5
30 to 45 min	141	17.1
More than 45 min	42	5.1
Not determined	118	14.3
Total	826	100.0

Table 7. Food at work by gender

		Gender		Total
		Men	Women	
Proper warm lunch	Count	190	133	323
	% within Gender	50.5%	29.6%	39.1%
Sandwich	Count	113	112	225
	% within Gender	30.1%	24.9%	27.2%
Crackers	Count	4	2	6
	% within Gender	1.1%	0.4%	0.7%
Yogurt, light food	Count	21	81	102
	% within Gender	5.6%	18.0%	12.3%
Fruits, vegetable	Count	24	86	110
	% within Gender	6.4%	19.1%	13.3%
Fast food	Count	10	13	23
	% within Gender	2.7%	2.9%	2.8%
Chocolate, sweets	Count	1	6	7
	% within Gender	0.3%	1.3%	0.8%
Nothing	Count	13	17	30
	% within Gender	3.5%	3.8%	3.6%
Total	Count	376	450	826
	% within Gender	100.0%	100.0%	100.0%

The length of the meal should not only depend on the type of the work but also on the nutrition solution at work. Meal vouchers require more than a 30-minute meal break, otherwise the company will find their employees bringing food back to the workplace to eat. Building a canteen that cannot serve workers quickly, or that does not have enough seats, is a poor investment.

Approximately 68.9% of Slovenian employees have no coffee or cigarette breaks, 14.2% have one break a day, 9.2% have two breaks a day, 3.9% have three and 3.9% more than three breaks a day.

#### *Healthy food*

The majority (86.9%) of Slovenian employees are aware of the importance of healthy eating. And 80.1% are

familiar with healthy food. About 39.1% of them have a proper warm lunch (58.8% men and 41.2% women), 13.3% eat fruits and vegetables (21.8% men and 78.2% women), 12.3% eat yoghurt or light foods (20.6% men and 79.4% women) and 35.3% eat sandwiches, fast food, chocolate, sweets or nothing at all (Table 7). On the one hand we found that many more women eat fruits, vegetables, yoghurt and light food than men, yet on the other, 85.7% of those who eat chocolate and sweets are women.

In our research we also examined whether nutrition solutions depend on social classes. In Table 8 the nutrition solutions of the next six classes are shown:

- Higher-grade professionals, administrators and officials; managers in large industrial establishments; large proprietors (class I)

- Routine non-manual employees, higher grade (administration and commerce) (class IIIa)
- Small proprietors, artisans, etc., with employees (class IVa)
- Manual workers (classes VI, VIIa and VIIb).

As seen in Table 8, there are certain differences in nutrition solutions between different social classes. Administration and commerce employees (class IIIa) have the least opportunities for a proper warm lunch (only 30%). In Slovenia after 1991, women prevail in this sector. They claim that they have no time to leave their workplace, so they eat something smaller there. It is also interesting that 24% of higher-grade professionals and managers (class I) eat fruits and vegetables at work.

Table 8. Food at work by social classes

	I	IIIa	IVa	VI, VIIa, VIIb
Warm proper lunch	52.0%	30.0%	63.6%	48.3%
Sandwich	16.0%	28.7%	27.3%	21.6%
Crackers	0.0%	1.6%	0.0%	0.0%
Yogurt, light food	4.0%	15.5%	0.0%	10.0%
Fruits, vegetable	24.0%	18.3%	9.1%	10.0%
Fast food	0.0%	1.9%	0.0%	6.6%
Chocolate, sweets	0.0%	0.6%	0.0%	0.0%
Nothing	4.0%	3.5%	0.0%	3.5%
Total	100%	100%	100%	100%

From time to time, 44.1% of employees drink coffee at work; 30.6% drink coffee regularly up to three times a day and 3.0% more than 3 times a day; 22.3% never drink coffee at work and 72.2% never smoke. The correlation between drinking coffee and smoking is very low ( $r = 0.230$  at  $p = 0.001$ ). Surprisingly no statistically significant correlation between employees' awareness of the importance of healthy eating and drinking coffee or smoking at work was recognized (drinking coffee  $r = 0.054$ ; smoking  $r = 0.003$ ). There was also no significant correlation between financial situation and smoking at work ( $r = 0.089$ ).

#### Diet and religion

Workers on special diets for health or religious reasons are often faced with a limited selection of food or no food options at work at all. About 5.0% of Slovenian employees are on a prescribed diet, and 56.1% of employers do not enable these people to eat dietary food. In 34.1% of the companies studied, employees can eat dietary food and in 9.8% partly, while 4.0% of employees eat food out of religious belief. In 60.6% of companies, employers enable these people to eat food according to their religious belief and in 27.3% only partly. Only in 12.1% did em-

ployers not enable these people to eat food according to their religion.

#### Food and finance

Individuals were asked about any correlation between their nutrition habits and their financial situation. In 57.6% the financial situation does not affect nutrition habits in the workplace; in 16.7% it does and in 25.7% partly. In 40.4% of companies where employees get money for nutrition at work this money is only partly spent on food and in 6.1% is not spend on food at all. Some (9.3%) think that what they get is not enough for a proper meal.

#### How do people come back to work after lunch?

A big and unhealthy lunch may slow down employees later in the workday. They come back to work dragging and feeling sleepy (CMD, 2006). People who bring their own lunches to work have better portion control, generally eat fresher foods and thus feel and perform better at work. In Slovenia 64.5% of employees come back to work after lunch very easily and have no problems starting to work again, but 3.1% find it very hard to come back to

work, 6.5% find it hard and 25.8% find it not very easy (Table 9).

Table 9. How people come back to work after lunch

	Frequency	Percent
Easily	533	64.5
Not very easy	213	25.8
Hard	54	6.5
Very hard	26	3.1
Total	826	100.0

#### Social elements

In our research we were also interested in the topics employees discuss during lunchtime and breaks, and what company they keep. In Table 10, differences in the company that employees keep according to class position can be seen. Comparisons for classes I, IIIa, IVa, and classes VI, VIIa and VIIb were made.

Higher-grade professionals and managers of large or small enterprises keep very different company during lunchtime and breaks. About 60% of them have lunch outside the company; but not as often with their business partners as expected. A total of 65% of manual workers always spend their lunchtime and breaks with the same

Table 10. Company employees keep

	I	IIIa	IVa	VI, VIIa, VIIb
Very different	40.0%	24.3%	40.9%	26.6%
Always the same people from the department	24.0%	34.5%	22.7%	65.0%
With people from the department by chance	12.0%	6.9%	9.2%	5.0%
Always the same people from the company	4.0%	14.5%	13.6%	1.6%
With people from the company by chance	0.0%	2.5%	0.0%	1.6%
With people from the department or company by chance	4.0%	4.1%	0.0%	0.8%
Always the same private company	0.0%	4.7%	0.0%	0.0%
Nobody	0.0%	8.2%	0.0%	0.0%
Business partners	16.0%	0.3%	13.6%	0.0%
Total	100%	100%	100%	100%

people from the department, and only 11% of them eat outside the company. It is very rare that employees spend their breaks or lunchtime with people from the company by chance.

Table 11 shows that employees discuss a variety of different topics: mostly actual events outside their company followed by their company's economic situation, light subjects like films and music, and organizational issues of their department. The least discussed topic is religion.

The answers in Table 11 show that themes like religion or personal problems are seldom discussed. Of course, topics of discussion also depend on social class. The company economic situation, business and organizational issues of the department are mostly discussed by managers in large industrial establishments or smaller companies. Employment safety is seldom discussed, regardless of class position.

## 4 Conclusion

The workplace is the ultimate community-based setting for health intervention. Many workers are present at least eight hours a day, five or more days a week. An opportunity exists to provide employees with what may be their only wholesome meal of the day. Access to healthy food (and conversely protection from unsafe and unhealthy food and eating arrangements) is as essential as protection from workplace pollution or noise. The availability of healthy food choices in cafeterias or from vending machines, through the distribution of vouchers or the provision of mess rooms, kitchenettes or good quality local food, can support a healthy workplace. In spite of that, canteens, if they do exist, routinely offer an unhealthy and unvaried selection. Vending machines are regularly stocked with unhealthy snacks. Local restaurants can be expensive or in short supply. Street foods can be laden with bacteria. In Slovenian companies, mess rooms or kitche-

Table 11. Topics employees discuss during lunchtime and breaks by social class

	Social classes									
	I		IIIa		IVa		VI, VIIa, VIIIb		All classes	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Food	2.52	0.770	2.61	0.986	2.52	1.327	2.40	1.153	2.59	1.045
Actual events outside the company	3.44	0.870	3.05	0.958	2.95	1.359	3.07	0.972	3.14	0.943
Politics	3.20	1.258	2.11	0.938	2.00	1.095	2.05	1.048	2.25	1.026
Business	3.20	1.384	1.81	0.965	2.57	1.399	1.68	0.892	1.98	1.097
Economy	3.44	1.158	2.30	0.986	2.67	1.278	2.13	1.065	2.42	1.076
Local themes	3.04	1.098	2.86	0.928	2.81	1.123	2.70	1.013	2.94	0.967
Black chronic (accidents, criminal)	2.76	1.165	2.72	0.955	2.33	1.238	2.97	0.901	2.73	0.980
Culture	2.80	1.155	2.27	0.911	1.62	0.921	2.07	1.023	2.26	0.965
Science and education	2.68	1.030	2.36	0.930	1.76	0.889	2.15	0.936	2.41	0.982
Religion	1.84	0.746	1.68	0.704	1.71	1.007	1.92	0.850	1.76	0.794
Sport	3.00	1.225	2.65	1.074	2.81	1.436	2.72	1.290	2.83	1.154
Amusing themes (movie, music)	3.24	1.128	2.95	0.981	2.75	1.076	3.02	0.911	3.00	0.983
Personal problems	2.08	0.997	2.34	1.073	2.24	1.179	2.07	0.841	2.24	1.032
Health service, healthy living	2.72	0.737	2.68	0.935	2.48	1.167	2.63	0.920	2.61	0.931
Famous people (gossips)	2.28	1.021	2.44	1.076	2.24	1.338	2.37	1.008	2.42	1.075
The company economy	3.76	1.128	3.08	1.091	2.52	1.250	2.85	1.162	3.09	1.138
Bosses	2.72	1.339	3.00	1.084	2.05	0.865	3.08	1.225	2.94	1.161
Pays	2.72	1.370	2.69	1.102	2.38	0.973	2.77	1.170	2.71	1.155
Organization issues of department	3.64	1.186	2.99	1.109	2.43	1.076	2.63	1.164	3.00	1.149
Technical issues of department	3.48	1.229	2.81	1.102	2.24	1.136	2.62	1.027	2.89	1.145
Employment safety	2.56	1.356	2.38	1.053	2.24	1.136	2.35	1.087	2.40	1.119
Special events inside the company	3.08	1.152	2.83	0.999	2.38	1.024	2.22	0.976	2.76	1.038
Other themes about the company	3.04	1.020	2.72	0.982	2.24	0.889	2.18	0.892	2.67	0.996
Other	2.80	0.707	2.96	1.013	2.29	1.189	2.93	1.039	2.88	1.009

*N* = 826; 1-never, 2-seldom, 3-sometimes, 4-often, 5-regularly

nettes are routinely used as a nutrition solution in the workplace.

Time is always a pressing concern. The length of the meal break needs special consideration. Employers have to ask whether, for example, 30 minutes is enough time for employees to walk to the food service, choose a meal, pay, find a seat, eat and return to work. Lunchtime length

should also depend on the type of work. The majority (60.5%) of Slovenian employees have only 15–30 minutes of lunchtime.

There is a broad consensus of expert opinion that healthy eating can help to reduce the risk of cardiovascular diseases, cancer and obesity. Some workers often eat in dangerous and unsanitary conditions. Mobile workers and

day labourers are expected to fend for themselves. Migrant workers, far from home, often find themselves with no access to local markets and no means to store or cook food. Night-shift workers find that they have few meal options after hours. Globally, hundreds of millions of workers face an undesirable eating arrangement every day. Poorer nations, in particular, remain in a cycle of poor nutrition, poor health, low productivity, low wages and no development (Wanjek, 2005). In Slovenia, people are aware of the importance of healthy eating (86.9%) and are familiar with healthy food (80.1%), yet 35.3% of them eat sandwiches, fast food, chocolate, sweets or nothing for lunch.

For one thing, people who eat a reasonably balanced diet away from work sometimes find themselves partaking of candy or soft drinks available in vending machines, or bad takeout food as part of their work day. Others who have poor nutrition habits extend that into the workplace and may influence others around them (Somerville, 2006). In Slovenian companies only 5.0% of employees are on a diet. In 56.1% of cases employers do not enable these people to eat dietary food. Employers need to understand the dietary needs of their employees, whether for health or religious reasons.

Promoting healthy eating does not have to be expensive or time consuming. Many of the least nutritious foods are the most costly items of a person's meal. Basic foods are usually the least expensive. In Slovenia in most cases (57.5%) food at work does not depend on employee financial status.

As part of the research, certain social elements like topics of discussion during lunchtime and breaks were analyzed. Employees in Slovenian companies mostly discuss daily events outside their company and rarely talk about religion. Most of them always associate with the same people from their department during lunchtime and breaks.

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