

COST OF LIVING COMPARISONS: A METHOD FOR STUDYING  
DIFFERENT ECONOMIC SYSTEMS

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During the summer of 1984, a group of Alaskan educators completed an international study tour that compared the economic systems of Scandinavia and the Soviet Union. A course requirement included participation in a group cost-of-living project. Results of that project provided information on the cost of living in Anchorage, Copenhagen, Stockholm, Helsinki and Leningrad in dollars, hours worked at local wages, and local currency. Participants learned how a cost-of-living index is constructed and used, and the limitations of such indexes. They were also provided with a valuable classroom resource.

During the summer of 1984, the Alaska Council on Economic Education sponsored a three-week study tour entitled Exploring the Economies of Scandinavia and the Soviet Union. The purpose of the tour was to provide participants a general introduction to the economic systems of the Scandinavian countries and the Soviet Union and, indirectly, a comparison with the economic system of the United States.

Forty adult Alaskans, primarily educators, visited six cities in Scandinavia and the Soviet Union: Copenhagen, Gothenburg, Stockholm, Helsinki, Leningrad, and Moscow. The tour included lectures and factory tours as well as cultural events and sightseeing. Participants kept daily journals about their impressions and experiences.

Participants also collected data on the costs of several products in four of the cities as well as Anchorage, Alaska. This project assisted participants in learning about differences in prices between and among countries and illustrated some of the practical problems involved in comparing the costs of living of different countries. Concurrently, we collected data on wages and exchange rates and used all of the data to develop cost-of-living comparisons of the countries upon our return. The information was shared with all participants, and many are now using this resource in the classroom.

In this paper we briefly summarize the problems involved in comparing the cost of living between countries and describe the price information which tour participants collected and the information that it provided on the relative cost of living in Alaska, Scandinavia, and the Soviet Union. Finally, we offer several suggestions about cost-of-living comparisons as projects for other study tours as well as classroom assignments.

#### PROBLEMS IN COMPARING COST OF LIVING BETWEEN COUNTRIES

It is a complex matter to compare cost of living between countries. Prices, wages, and the amount and quality of what people buy or would like to buy vary between countries, and it is difficult to summarize these differences in numbers.

The problems encountered by study tour participants in comparing cost of living were similar to those encountered by economists compiling official cost-of-living figures such as those published by the United States Department of Commerce and the United Nations:

1. Like items must be compared for a valid comparison. However, products and services vary from place to place. An even more difficult problem arises from quality differences.
2. The market baskets differ from country to country. As a general rule, the cost of living in a country

appears lower if it is measured by what its residents usually buy than if measured by what people in other countries buy because people naturally tend to buy those goods that are cheaper.

3. Wages differ according to country. In some cases, it is more appropriate to compare cost of living in terms of the hours of work that it costs to purchase a standard market basket rather than in wages.
4. A standard currency should be used to compare prices as each country's currency is constantly affected by fluctuating exchange rates. The exchange rate for American dollars in some of the countries we visited changed even during our short study tour. A related problem was that the official exchange rate in the Soviet Union differed from the unofficial (and illegal) black-market rate. Another problem in the Soviet Union was that there are special stores for foreign tourists in which only foreign currency may be used. These stores tend to have a wider selection of products of higher quality than those at which Russians must make their purchases. In effect, there are two costs of living in the Soviet Union: the cost of living for a foreign visitor using foreign currency

and the cost of living for a Russian using roubles.

#### DATA COLLECTION

##### Prices

Each participant chose at least one product for which to collect prices. The course instructions were:

"choose some product or service which is likely to be available everywhere we go (some examples are milk, camera film, shoes, bus rides, haircuts, movies, etc.). For one city in each country that we visit (including Anchorage), you will find out the approximate price of the product or service by looking in a store or by asking someone. After we leave each city, we will collect the information from the course participants and use it to compare the cost of living in various ways . . . . Although you may encounter some problems collecting prices, the project should still be fairly simple, fun, and informative. Luckily, we don't have to be precise. Don't get worried if you're not absolutely sure about some number that you use. The purpose of the project is to learn and have fun rather than revise the official statistics."

Participants usually chose products for which information could be easily collected, although some chose products which were highly specialized and not generally available. Most participants noted prices in only one store

or shop or by asking only one individual, but some compared prices in several stores. In some cases, participants collected price information in stores or shops which were probably not typical of local retail shops such as airport shops or special tourist shops in the Soviet Union.

Participants found many differences in quality and quantity of products between countries. There were also differences in the quality of data as measured by the extent to which it might be representative of prices for the product in the country. Nevertheless, using the participants' notes, we developed a standard price for each product and took into account differences in quantity and quality.

#### Exchange Rates

We collected information on exchange rates by noting the rates when we changed money (usually at major banks). Although there was some slight variation in exchange rates at different locations, these were relatively small. We used the official exchange rate for the Soviet Union rather than the unofficial black-market rate, at which a rouble would have been less than half as valuable.

#### Wage Rates

We obtained wage information by asking tour guides and other individuals about before-tax and after-tax annual incomes for teachers, carpenters, and doctors. The assumptions about Alaskan wage rates are our own.

In general, information about prices was more easily obtained than was that regarding wages. Participants could determine prices by looking at items in stores or by asking. In contrast, people were somewhat reluctant to discuss their own wages and, often, did not know much about wages in other occupations. Other difficulties in comparing actual wages arose because of wide differences in taxes. In addition, wages differed for workers in the same occupation due to differences in experience, job responsibilities, and employers' wage policies.

#### DATA ANALYSIS

In order to analyze price data, we created five market baskets using the products selected by four participants as shown in Table 1. These market baskets were roughly divided as to how important or essential the items appeared to be. Not all items were given the same weight in the market baskets. We gave relatively expensive items, such as music lessons or running shoes, a smaller weight (less than 1) and relatively less expensive items a greater weight (more than 1). We did this in order to give each item approximately the same importance in the market basket. Without this adjustment, variations in the prices of relatively more expensive items would have overwhelmed all other price variations. We determined the cost of each market basket in U.S. dollars, in hours worked at local wages for each of the

three occupations, and in units of local currency. Indexes of the costs of the market baskets measured in these different ways are seen in Table 2.

Housing Costs (Market Basket A)

Despite the uncertainties introduced by having only one housing price for each country, there appeared to be clear differences in costs for housing, measured in terms of U.S. dollars, between Anchorage, the three Scandinavian cities, and Leningrad. In dollars, costs in the Scandinavian cities were approximately half those of Anchorage; in Leningrad, they were only one-fiftieth those in Anchorage.

This pattern changed somewhat when we measured housing costs in terms of hours worked at local wages. By this measure, housing costs in the Scandinavian cities were as high or higher than in Anchorage. However, costs in Leningrad were still less than one-fifth those in Anchorage.

Housing was also far cheaper, by all criteria, in Leningrad than in the other cities relative to other goods. In Leningrad, Market Basket A (housing) in roubles was less than three times as much as the most essential day-to-day goods market basket, compared to an average of more than thirty-three times as much in the Scandinavian cities and more than seventy-seven times as much in Anchorage.

In short, the small amount of data collected strongly



suggests that by several measures, housing was far cheaper in Leningrad than in Anchorage or the Scandinavian cities. This is in accordance with Soviet policy of keeping housing costs low.

Costs of Day-to-Day Goods (Market Baskets B,C, and D)

We had more information about costs of day-to-day goods than housing or luxury goods. Thus, conclusions about costs for these items are probably more reliable than for the other goods.

Measuring first in terms of dollars, prices for day-to-day goods in the Scandinavian cities were about the same as in Anchorage or a little higher. Prices in Leningrad were somewhat lower. The more essential the product, the lower the cost in Leningrad.

In terms of hours worked at local wages, prices for Market Baskets B,C, and D were up to more than five times as high in the Scandinavian cities as in Anchorage, and up to more than nine times as high in Leningrad. Although prices were nominally cheaper in Leningrad, a worker could afford to buy considerably more with his or her earnings in Anchorage. Of course, this conclusion is only as valid as the wage rate assumptions used for each city. Since we spent little time gathering information on wages, we may easily have over-estimated Anchorage wages relative to those in the other cities. However, it is unlikely that errors in

measuring wages would account for the entire difference in the amount of day-to-day goods which an hour's work purchased.

#### Costs of Luxuries (Market Basket E)

Measured in terms of dollars, luxuries cost about the same in all five cities. However, measured in terms of hours worked at local wages, luxuries appeared to be two to more than three times as expensive in the Scandinavian cities and more than eight times as expensive in Leningrad. Luxuries were also more expensive relative to day-to-day goods in Leningrad than they were in the other cities.

#### CONCLUSIONS

Even with the limited amount of information that participants in the study tour collected, several reasonable conclusions can be drawn about relative costs of living between the five cities:

- . Housing prices were far lower in Leningrad than in the other cities.
- . In Leningrad, essential products were relatively cheaper, compared to the prices of other goods, than in Anchorage or the Scandinavian cities.
- . An hour's wage in Anchorage tended to buy somewhat more of most kinds of products than an hour's wage in the Scandinavian countries and far more of most products, especially less essential products, than

an hour's wage in Leningrad.

Participants in the study tour, in their discussion of these results as well as in their observations throughout the tour, agreed that these conclusions matched their impressions of price differences between countries.

However, they also felt that comparison of prices alone, or what an hour's wages will buy, was an inadequate yardstick by which to measure quality of life in the different countries.

Participants did not measure prices of various products or services which are provided at no direct cost in the Scandinavian cities and in Leningrad, such as health care and higher education. Nor did they measure differences in the quality of life which are not priced in any of the cities, such as the number of parks, or the level of political freedom. In short, while the price information is revealing about some differences between the cities, it would be a gross misinterpretation to say that residents in Anchorage were twice as well off as those in the Scandinavian cities, or eight times as well off as those in Leningrad.

#### PRICE COMPARISONS AS PROJECTS FOR INTERNATIONAL STUDY TOUR AND CLASSROOM ASSIGNMENTS

Our experience with collecting and comparing prices in different cities during the study tour suggests that a

project of this sort can be a very interesting and instructive learning experience. However, the project should be well organized in advance, and participants should have as much opportunity as possible to analyze the data themselves.

The cost-of-living project provided some valuable insights into cost differences between cities. However, better planning might have enabled us to learn more. It would have been useful to have information about a broader variety of products, and to collect more information about wages. Analysis of the data would have been easier if participants had collected the price information in a standard format. If all participants had understood more about the ultimate purpose of the project, and its usefulness to them in the classroom, prices might have been collected with greater care.

Cost-of-living studies are obviously easier and more fun if on-site surveying of price data is possible. However, this kind of project is quite possible and potentially very interesting even within the confines of a standard classroom. Exchange rates can be obtained daily from most newspapers. Information on prices and wages can be gleaned from various U.S. government publications and United Nations sources, as well as numerous private studies. American embassies in foreign countries and public affairs offices

and economic attaches attached to foreign embassies in the United States are potential and usually reliable resources. If time is a problem, published studies on cost-of-living differences between countries could be used as a basis for discussion of comparative economic systems.

TABLE 1  
MARKET BASKETS

<u>Market Basket</u>	<u>Product or Service</u>	<u>Number of Units in Market Basket</u>
A (Housing)	Apartment rental	1
B (Day-to-day: most essential)	Aspirin	.5
	Bus Ride	1
	Ice cream - hard	.5
	Ice cream - soft	.5
	Insulin	.1
	Lightbulb	1
	Postcard	1
	Postage - domestic postcard	1
	Razor blades	1
	Soft Drink	1
	Toilet paper	1
	Toothbrush	1
	Toothpaste	1
C (Day-to-day: less essential)	Beer - .bottle	2
	Cigarettes - carton	.1
	Coca-Cola	1
	Gasoline	2
	Haircut	.1
	Motor oil	.5
	Music lesson	.05
	Theatre ticket	.1
D (Day-to-day: least essential)	Beer - in pub	.5
	Dining room chair and table	.01
	Film - slides	1
	Ladies' shampoo	1
	Lipstick	1
	Running shoes	.2
	Vodka	1
E (Luxuries)	Ladies' permanent wave	.2
	Silver spoon	.2
	Stopwatch	.2

TABLE 2  
INDEXES OF COST OF LIVING IN TERMS OF  
DIFFERENT MARKETBASKET AND PRICE UNITS

Anchorage Copenhagen Stockholm Helsinki Leningrad

Cost of Marketbasket in U.S.  
Dollars (Anchorage = 1.00)

A	1.00	.55	.39	.41	.02
B	1.00	1.00	1.04	1.10	.48
C	1.00	1.20	1.25	1.24	.62
D	1.00	.82	1.07	1.01	.80
E	1.00	.86	.97	.91	.97

Cost of Marketbasket in Hours Worked  
at Local Wages (Anchorage = 1.00)

For a teacher

A	1.00	1.51	1.37	.87	.14
B	1.00	2.76	2.07	2.34	4.22
C	1.00	3.33	2.52	2.67	5.56
D	1.00	2.26	2.13	2.15	7.07
E	1.00	2.37	1.93	1.93	8.61

For a carpenter

A	1.00	1.72	1.08	.98	.14
B	1.00	3.13	2.85	2.63	4.22
C	1.00	3.80	3.46	2.98	5.56
D	1.00	2.26	2.13	2.15	7.07
E	1.00	2.69	1.93	1.93	8.61

For a doctor

A	1.00	2.20	1.67	1.65	.18
B	1.00	3.94	4.35	4.35	5.53
C	1.00	4.85	5.37	5.00	7.37
D	1.00	3.29	3.29	4.54	9.38
E	1.00	3.47	4.13	3.66	11.47

Cost of Marketbasket in Local  
Currency (Marketbasket B = 1.00)

A	77.47	42.55	29.34	28.93	2.51
B	1.00	1.00	1.00	1.00	1.00
C	.81	.97	.98	.91	1.06
D	7.22	5.93	7.43	6.62	12.11
E	2.49	2.14	2.32	2.06	5.08