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Systemic Changes and Unemployment Growth in Yugoslavia, 1965–1984

The Yugoslavs are infected by what Županov calls the disease of “historical optimism.” Shocks, emanating from the international economy over the last decade or so, were seen as a developmental problem or, at worst, a transitory difficulty. This argument seems to follow these lines: Contemporary capitalism, of course, is doomed to collapse sooner or later; contemporary étatism is also in a state of crisis and will evolve toward Yugoslav self-management socialism. The socialism of self-management, however, could not itself be in crisis, because, if it is in crisis, what is left?¹

In fact the word *crisis* was not used to describe the state of the Yugoslav economy until September 1982 when it was discovered that foreign debt could not be serviced and required rescheduling. By then the Yugoslav foreign debt was \$20 billion, the unemployment rate stood at 10 percent to 16 percent (depending how you measure it), and inflation was at 40 percent. Only then did the policymakers realize that these problems were a consequence of prolonged economic mismanagement, excessive borrowing abroad, arbitrary decision making, and an autarchic economic policy in general.

Here, we shall attempt to examine whether systemic (and policy) changes affected employment creation in Yugoslavia. We shall then turn to the problem of unemployment, which, in our opinion, is the most pressing economic problem in Yugoslavia today.

After World War II, the Soviet economic system was totally transplanted to Yugoslavia and remained in force, officially, until 1950. The system was adopted without any regard to the considerable economic, sociopolitical, and other differences between the two countries. The transplant did not take.

In 1950 that system was replaced with self-management socialism, which performed better than the transplanted one had. Many features of the administrative system, however, remained: Investment decisions were still centralized; noneconomic criteria were often used in investment allocations; prices, incomes, and exchange rates were controlled at the federal level. These features appeared to be the main barriers to healthy economic growth. Even though the growth rates in the 1950s were impressive, Yugoslav industry was still inefficient by international standards: Per capita output was low and the quality of goods was inferior. Indices recording fast output should be treated with care, for they fail to indicate the problems of a low base, of production output that could not be sold, of the heavy protection of domestic industry, and so on.

The reform of 1965 was initiated in the hope of expanding the role of the market as one of the fundamental regulators of economic activity. The reform was to achieve five goals: improved efficiency in the use of scarce resources, modernization of plant and

1. See, J. Županov, *Marginalije samoupravne krize* (Zagreb: Globus, 1983). This article is based on a very different version delivered by Emil Primorac at the annual meeting of the AAASS in New Orleans, November 1986.

equipment, improved quality of production, increased share of international trade, and faster economic growth. Enterprises were to be granted a greater role in income distribution. A gradual freeing of international trade was to expose domestic industries to stiffer competition from abroad and in turn make them more competitive in international markets. Inflation was to be controlled, multiple exchange rates abolished, and the dinar devalued.²

Unfortunately the high hopes for the reform did not materialize. Policy measures that accompanied the reform resulted in the surfacing of the deep-rooted structural imbalances in the economy. Administrative price increases for primary products, intended to achieve parity with the prices of manufactured goods, had a strong cost-push effect. Devaluation of the dinar reinforced these cost-push pressures. The subsequent inflation combined with the more open economy to affect the country's balance of payments adversely. The policymakers were frightened by the course of events and by 1968 the reform was abandoned. The failure of the reform produced a series of cycles around the underlying trend toward decentralization, cycles of liberalization, economic instability, ad hoc intervention, new forms of instability, and further liberalization.³ One of the reasons for these stop-go policies (to combat inflation and periodic balance of payments difficulties) is to be found in Yugoslav policy-making: An attempt to make self-management more meaningful at the micro level made short-term management much more difficult at the macro level. The expansion of the role of the market would have given individual enterprises greater control over many price decisions and most investment decisions. A predominantly oligopolistic market structure at home, however, combined with a high degree of trade protectionism, was not the ideal setup for the market to perform its allocative function. The problems that emerged during the reform and post-reform developments called for fresh changes in institutions: The Constitution of 1974 and the 1976 Law of Associated Labor laid the framework for new institutional arrangements.

Two legal instruments used for the purpose of organizing economic relations are social compacts and self-management agreements. Social compacts set out overall macroeconomic policies and are concluded by the assemblies of sociopolitical communities, and often by trade unions, economic chambers, and associations of enterprises. Self-management agreements regulate relations between economic organizations and serve as the basis on which microeconomic decisions are set out.

In the course of its development Yugoslavia, like most fast-growing developing economies, experienced difficulties with labor market performance. During economic development structural changes generated considerable imbalances in the labor market and revealed hidden unemployment. These imbalances and the dual nature of the labor market are perhaps more accentuated in Yugoslavia than in other developing countries. A standard division exists between the agricultural and nonagricultural markets, which, for all practical purposes, divide into private and social sector employment.⁴ This divi-

2. The dinar was denominated in the ratio of 1 to 100, 1 dn = 100 old dinars, and devalued from 750/\$1.00 to 1,250/\$1.00. Convertibility of the dinar was debated, but the costs associated with it were thought to be prohibitive.

3. D. Flaherty, "Economic Reform and Foreign Trade in Yugoslavia," *Cambridge Journal of Economics* 6 (1983): 122.

4. Private employment in agriculture in 1980 was 91 percent of total agricultural employment.

sion is not clear-cut. A number of workers in the social sector have close ties with the rural (private) sector. These half-peasants-half-workers have attitudes towards work and income that are different from those of a typical urban worker who exclusively depends on "wages" for his existence.

The private agricultural sector is characterized by low productivity, low incomes, and a considerable amount of disguised unemployment. The social sector has (by standard indicators) consistently outperformed the private sector.⁵ Incomes of agricultural workers have been consistently well below those of the social sector workers (see table 1).

Considerable regional differences in the level of economic development have made the Yugoslav labor market dual. The more-developed north has consistently outperformed the less-developed south (see table 2). After the 1965 reform the Yugoslav labor market acquired an additional dual dimension when the movement of labor across national boundaries became easier (see table 3).

A tolerably efficient labor market would generate three sets of flows. We should expect the transfer of labor from private to social sector employment, the transfer of labor from the south to the north, and a considerable exodus of workers for employment abroad whenever a net advantage could be realized by foreign employment, regardless of whether that person was employed or unemployed. The failure of the labor market to generate these flows results in the increase of the unemployment rate and the decrease of the growth rate of gross material product (GMP) (see table 4).

The accepted practice in Yugoslavia is to discuss problems of employment in relation to the social sector only. According to the latest population census, social sector employment accounted for 71.5 percent of total employment. Why should the other 28.5 percent be ignored? The narrower definition of employment (i.e. social sector employment) is inadequate because it does not account for agricultural workers in the private sector and other workers who do not fit the official status of the employed person. Therefore row 3 in table 4 should be a more meaningful measure of employment than would row 1, which is the one generally used. Unfortunately, our estimates of employment in private agriculture still have a serious shortcoming: they include disguised unemployment in that sector. If we wish to draw any useful message from this information we must eliminate disguised unemployment from our data, but this is not easy because of conceptual and method problems. A rough rule of thumb would put disguised unemployment at about 10 percent of the employed labor force. Many peasants work abroad. Even so, these numbers may be misleading and should be treated with caution.

The change of employment definition alters the magnitude of the unemployment rate. The gross unemployment rate is the ratio of unemployment to the sum of total employment and unemployment (row 5, table 4). Workers temporarily employed abroad cannot be ignored as if, by their ostensibly temporary departure, they cease to interest the analysts. Their inclusion among the unemployed, which is debatable but defensible,⁶ gives us the total unemployment rate (row 8, table 4).

5. Standard indicators, however, should be treated with care. For instance, production costs in the private sector are much lower, and so are their prices.

6. See E. Primorac and P. A. Della Valle, "Unemployment in Yugoslavia: Some Structural and Regional Considerations," *Jahrbuch der Wirtschaft Osteuropas*, Band 5 (1974), 455-488.

Table 1. Ratios of Average Income for Workers in Private and Social Sectors
(Selected Years)

	1962– 1964	1966	1968	1970	1972	1974	1976	1978	1981	1982	1983
Average income, private sector	1,400	3,400	3,220	4,720	7,760	13,610	15,270	23,636	63,437	86,401	114,313
Average income, social sector	3,552	8,760	10,740	15,000	21,120	30,408	43,680	62,064	119,856	161,206	206,632
Ratios	.39	.39	.30	.31	.37	.45	.35	.38	.52	.53	.53

Sources: For 1962–1974: Martin Schrenk, Cyrus Ardalan, Nawal A. E. Tatawi, *Yugoslavia: Self-Management Socialism—Challenges of Development*, World Bank Country Economic Report (Baltimore, Md.: Johns Hopkins University Press, 1979), 247. For 1976–1983: *Statistički Godišnjak Jugoslavije* (henceforth to be referred to as *S.G.J.*); 1983, 1984, 1985 are our estimates.

Table 2. Indices of Social Product for Each Worker by Republics*
(Selected years)

	Croatia	North Serbia	Slovenia	Vojvodina
1961	103.58	106.34	120.10	78.95
1971	105.34	98.29	107.54	107.73
1981	106.09	98.47	123.12	111.26
1984	106.22	99.11	127.04	114.00

	Bösnia	South Kosovo	Macedonia	Montenegro
1961	99.85	77.59	70.03	88.45
1971	85.39	75.84	84.63	85.79
1981	84.79	66.06	75.86	90.38
1984	83.28	60.68	74.02	87.49

Sources: For 1961: *S.G.J.—1968*, 202-1, 340, and 203-1, 358; for 1971: *S.G.J.—1975*, 203-1, 381, and 204-1, 398; for 1981 and 1984: *S.G.J.—1985*, 204-1, 458, and 205-1, 469.

* Yugoslavia = 100.

The data reveal some interesting developments. Social sector employment grew between 1961 and 1984 at an annual rate of 3 percent, an impressive rate when compared with the performance of other OECD countries. Total employment growth rate, however, was only 0.25 percent because of a steady decline in private (read agricultural) employment (recorded decline was 3.9 percent a year). The presence of income differentials (table 1) combined with the employment benefits in the social sector and the attractiveness of urban life have all contributed to continuous transfer of labor from the private sector to the social sector. Therefore, the drive for industrialization was helped by the persistence of income differentials and extra benefits of social sector employment,⁷ which resulted in a partial removal of the disguised unemployment in agriculture while providing the fast-growing social sector with the labor it required.

Did not this relocation of labor, made possible through the policymakers' strong commitment to full employment and vigorous job creation in the social sector, in effect, transfer disguised unemployment from agriculture to other sectors? Jože Mencinger's study suggests an affirmative answer to this question.⁸ Since it is extremely difficult to dismiss a worker once employed, a certain amount of disguised unemployment may be found not only in the private (agricultural) sector but also in the rest of the

7. The benefits of social sector employment are numerous: superior social status, the "social security" that means guaranteed salary, health insurance, pension funds, "self-management rights," the chance to get an apartment.

8. Jože Mencinger, "Otvorena nezaposlenost i zaposleni bez posla," *Privredna Kretanja Jugoslavije*, April 1983.

Table 3. Temporary Migration from Yugoslavia, 1964–1983
(In thousands)

<u>1965</u>	<u>1966</u>	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
130.0	190.0	220.0	260.0	430.0	600.0	680.0	770.0	860.0
<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>
810.0	770.0	725.0	705.0	695.0	690.0	693.0	675.1	650.0
								<u>1983</u>
								<u>1984</u>
								625.0

Sources: For 1954–1979: Center for Migration Studies, *Discussions on Migration*, no. 57, 1979; for 1980–1982: Correspondence with the Center for Migration Studies, Zagreb; for 1983–1984: our estimates.

Table 4. Employment and Unemployment, Yugoslavia, 1961–1984
(In thousands)

	1961	1966	1971	1976	1981	1982	1983	1984
Social sector employment	3,170.0	3,492.0	3,944.0	4,833.0	5,846.0	5,980.0	6,097.0	6,224.0
Growth rate *	7.96	1.95	2.46	4.15	3.88	3.43	2.92	2.48
Private sector employment	4,450.7	4,266.1	4,061.6	3,181.1	2,326.6	2,156.1	1,993.7	1,848.3
Growth rate *	-2.11	-0.84	-0.98	-4.77	-6.06	-6.45	-6.83	-7.08
Total employment	7,620.7	7,758.1	8,005.6	8,014.1	8,172.6	8,136.1	8,090.7	8,072.3
Growth rate *	1.39	0.36	0.63	0.02	0.39	0.19	-0.07	-0.25
Unemployment	191.3	237.0	291.3	635.3	808.6	862.5	910.3	974.8
Growth rate *	14.01	6.13	2.50	16.88	4.94	4.25	4.38	5.05
Workers abroad	28.0	190.0	680.0	725.0	675.1	675.0	625.0	600.0
Growth rate *	47.58	46.66	29.05	1.29	-1.42		-1.53	-0.81
Gross unemployment rate (percentage) †	2.45	2.96	3.51	7.35	9.00	9.58	10.11	10.77
Standard unemployment rate (percentage) ‡	5.69	6.35	6.88	11.62	12.15	12.61	12.99	13.5
Total unemployment rate (percentage) §	2.80	4.32	10.82	14.51	15.37	15.89	15.95	16.32

Source: E. Primorac, *Analiza Radne Snage kao Faktora Dugoročnog Razvoja S. R. Hrvatske* (Zagreb: Ekonomski Institut, 1982), appendix 1 and 2.

* Annual growth rate for the preceding five year period, i.e. 1956–1961, . . . 1979–1984.

† Gross unemployment rate = unemployment/total employment + unemployment.

‡ Standard unemployment rate = unemployment/social sector employment + unemployment.

§ Total unemployment rate = unemployment + workers abroad/total employment + unemployment + workers abroad.

economy. Mencinger estimates that about one-fifth of the labor employed in the social sector is made up of the hidden unemployed.

If we are justified in our assumption that the decline in private employment represents the shedding of surplus labor in agriculture, the total employment growth rate should not alarm us; quite the contrary. Since productivity is considerably higher in the social sector than it is in the private sector, because of higher capital-to-labor ratios in the social sector, the transfer of labor from a low productivity sector to a high productivity sector raises overall labor productivity. This transfer results in the growth of personal incomes, and this growth results in increasing aggregate demand and further growth in employment. Such a transfer, therefore, turns out to be a stimulant to growth.

Since the transfer of labor from the private to the social sector was in response to the net economic advantage of social sector employment, income differentials should eventually decline because such a transfer would tend to reduce the productivity differential. In the period following the reform of 1965, however, the differential increased and this fact is usually attributed to the reform itself: nominal incomes of workers in the social sector increased threefold between 1964 and 1968.⁹ This increase was partly due to increased productivity and partly due to workers' voting for themselves a larger share of the enterprise's income.¹⁰ In such a situation the pressure to find employment in the social sector increased and large outflows of labor from agriculture followed.

How is a policymaker who is committed to full employment, and Yugoslavs (certainly before the reform of 1965) have been so disposed, to ensure in such a situation that the creation of new jobs in the social sector does not simply represent a transfer of disguised unemployment from agriculture to other sectors? It cannot be done. Employment creation, however, is attractive from a social point of view and has an added political advantage: a conservative, distrustful peasant who is reasonably independent and often difficult to manage is turned into a member of the urban working class.

The movement from the south to the north has not been as strong as the net advantage argument might suggest. Regional, linguistic, and social differences notwithstanding, the explanation is readily provided by the third dual characteristic of the labor market. If an individual decided to leave the home region, the net advantage of obtaining employment abroad was greater than it was in the Yugoslav north. While employment opportunities abroad were plentiful, the move into temporary employment abroad was preferable to a move within national borders.

Two points must be made here: First, employment maximization in such circumstances must have undesirable effects on overall productivity.¹¹ Second, the transfer of workers into urban centers requires considerable nonproductive investment in housing,

9. See Martin Schrenk, Cyrus Ardalan, and Nawal A. El Tatawi, *Yugoslavia: Self-management Socialism—Challenges of Development*, A World Bank Country Economic Report (Baltimore, Md.: Johns Hopkins University Press, 1979), 247.

10. As mentioned earlier, higher productivity in the social sector is the result of higher capital-to-labor ratio in this sector. In distributing income, a fair share should go to capital. When decisions on distribution are made by workers, however, they often appropriate for themselves a part of the capital's share: the high rate of write-offs (*otpisanost*) of the existing capital stock in the Yugoslav economy illustrates this tendency.

11. At the microlevel the low productivity of a marginal worker may, through demonstration effect, adversely influence the productivity of other workers.

Table 5. Annual Growth Rates of Employment, Unemployment and Migration in Yugoslavia

	1956–1966	1966–1976	1976–1984
Total employment	0.87	0.33	0.09
Social sector employment	4.92	3.30	3.21
Unemployment	10.00	9.75	5.0
Migration	n.a.	14.33	–2.34

Source: See table 4.

education, and other social services. If such investments fall short of what is required, unwelcome social tensions may develop.

Employment growth and its effects on the overall performance of the economy cannot be appropriately evaluated from the data presented here. What can be said, however, is that in terms of creating new jobs (wherever they may be) the Yugoslav performance cannot be judged a great success.¹² Certainly surplus labor in agriculture had to be provided with productive jobs elsewhere, but more than 700,000 Yugoslav workers found employment abroad and nearly half of these were recruited from the private agricultural sector.

These developments generated two immediate and substantial benefits. The problem of unemployment at home was “solved,” while the workers’ remittances became the main source of the surplus in the balance of current transfers.¹³ Indeed, were it not for employment opportunities abroad, the ability of the Yugoslav economy to generate modern employment would be seen as at best a qualified success. We must look into the reasons for a sluggish employment growth in Yugoslavia over the last two decades.

The period following the reform of 1965 is characterized by a slowdown in employment growth, an increase in unemployment growth, and the exodus of Yugoslavs.¹⁴ In 1966, 427,000 Yugoslav workers were either registered as unemployed at home or worked abroad. By 1976, 1,360,000 Yugoslavs were in the same category and represented 14.5 percent of the total labor force in that year (see table 5).

The numbers are self-explanatory. Employment growth worsened in the mid-1960s and the situation has not changed since then. Unemployment is on the increase and the smaller growth rate in the last period only illustrates what happens to the growth rates when the base figure (for calculations) is large enough. The migration rate has a correct sign in the last period that was due more to the host countries’ unwillingness to receive additional workers (and sometimes to concerted efforts to be rid of them) than to Yugoslavs’ change of mind about employment abroad.

12. The available analyses of the employment problem are invariably concerned with the performance of the social sector—and all is well there. It is the overall picture to which we address ourselves here.

13. Mate Babić and Emil Primorac, “Some Causes of the Growth of the Yugoslav External Debt,” *Soviet Studies*, January 1986, 77.

14. The number of Yugoslavs temporarily employed abroad before 1965 was negligible.

The decline of employment growth rates appears to coincide with the institutional changes in the mid-1960s, however. Did the reform of 1965 and “the introduction of self-management *in earnest*” affect employment growth?

If the objective function of the self-managed enterprise is the maximization of income for each present worker, then, in theory based on the static production function, such an income distribution will be realized when the average revenue product curve reaches its maximum. If the wage rate in the wealth-maximizing firm equaled the maximum income for each worker, both would produce the same output and employ the same number of workers. If the wage rate is less than the maximum income for each worker, divergence will occur:¹⁵ The self-managed enterprise would produce less output and employ fewer workers. This possibility could point to one source that impeded employment growth in the short run.

If the self-managed enterprise were to limit employment in this way, their capital-to-labor ratio would be higher than it is in the case of the wealth-maximizing enterprise. As long as the self-managed enterprise can borrow funds for investment, production will be expanded by employing capital-intensive rather than labor-intensive techniques.¹⁶ In addition, if the funds could be obtained at a negative interest rate (as was the case in Yugoslavia after 1965), the enterprise would invest more. The overvalued dinar (a policy followed in the 1970s), would make this tendency more pronounced.¹⁷

Investment continued at a healthy pace (see table 6). The behavior of the capital-to-labor ratio should tell us if the employment policies of the Yugoslav enterprises changed significantly following the reform of 1965 (see table 7).

Capital-to-labor ratios for the total economy have grown continuously over the whole period but hardly vary between the five-year periods. In the manufacturing and mining sector, similar long-term patterns emerge, with one notable exception. The ratio shows a noteworthy jump between the five-year period immediately preceding the reform of 1965 and the period immediately after. This increase supports the argument that the self-management system has exhibited a clear bias toward capital growth to the detriment of employment growth.

A. Sapir argues this case forcefully.¹⁸ He recorded a 72 percent increase between the average capital-to-labor ratio for the 1955–1965 and 1966–1975 periods. Such substantial changes are not in accord with Vinski’s estimates.¹⁹ Be this as it may, an increasing capital-to-labor ratio (about which there is no disagreement) will raise productivity of those employed and, in order to protect their (rising) income, they may be quite reluctant to acquiesce to employment expansion.

In another study, Ante Puljić²⁰ examined this problem in his study of the effective use of hours worked between 1955 and 1974. His findings are that the average annual

15. If the enterprise had wealth maximization as an objective, it would select the point where marginal input contribution to revenue equals marginal labor cost.

16. The algebra for this is available in P. J. D. Wiles, *Economic Institutions Compared* (Oxford: Basil Blackwell, 1977), 85–86.

17. See Babić and Primorac, “Growth of the Yugoslav External Debt,” 80.

18. See A. Sapir, “Economic Growth and Factor Substitution: What Happened to the Yugoslav Miracle?” *The Economic Journal*, June 1980.

19. Vinski’s data include total fixed assets in use in the economy (*privreda*); *Statistički Godišnjak Jugoslavije* gives information for the manufacturing sector.

20. Ante Puljić, Kritički osvrt na članak A. Sapira, “Ekonomski rast i supstitucija faktora: Što se dogodilo jugoslavenskom čudu?” *Economic analysis* 16 (1982): 369–376.

Table 6. Ratios of Investment to Gross Material Product

<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
37.5	38.3	43.0	41.4	40.0	44.5
<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>
42.8	45.5	42.8	41.9	39.8	36.2

Source: M. Babić and E. Primorac, "Some Causes of the Growth of the Yugoslav External Debt," *Soviet Studies*, January 1986, 76.

Table 7. Capital-to-Labor Ratios—Yugoslavia 1961–1980*

(In thousands of dinars)

	1961	1965	% Δ	1966	1970	% Δ
Total economy (<i>Privreda</i>)	122.8	156.6	27.5	168.1	211.9	26.1
Manufacturing and mining sector	276.0	331.7	20.1	359.9	456.7	26.9
Ratio of total economy to manufacturing and mining sector	.44	.47		.47	.46	
	1971	1975	% Δ	1976	1980	% Δ
Total economy (<i>Privreda</i>)	223.1	289.8	29.9	304.3	389.1	27.9
Manufacturing and mining sector	461.5	533.0	15.5	535.8	642.6	19.9
Ratio of total economy to manufacturing and mining sector	.48	.54		.57	.60	

Source: I. Vinski, *Osnovna sredstva i društveni proizvod i zaposlenost u privredi Jugoslavije* (Zagreb: Ekonomski Institut, 1982).

*Not available for other years on a comparable basis.

rate of growth of effective hours worked in the period from 1955 to 1964 was 4.66 times higher than it was in the subsequent decade. The effective hours were lowest in 1964, for the first period, and highest in 1967, for the second period (see table 8). They were least effectively used in 1965, and it is difficult to judge whether the reform reversed the downward trend from 1960 to 1965, or caused the repetition of the same trend from 1967 to 1972. The reform of 1965 did not provide any obvious ways of helping to solve the problem of employment growth, although it is not readily apparent that it contributed to the worsening of the problem either. If we are to take the two

Table 8. Monthly Effective Use of Hours
(Actual hours worked to hours paid)

1956	1960	1964	1965	1967	1970	1972
90.50	91.54	84.91	79.23	84.90	82.54	81.82

Source: Ante Puljić, "Utjecaj tehnološkog napretka na rast društvenog proizvoda industrije," *Economic Analysis* 14 (1980): 191.

periods to illustrate two qualitatively different economic systems, however, the latter proved to be considerably less efficient in employment growth and effective use of hours worked.

The persistence of net economic advantage, for those employed in the social sector or abroad, was responsible for the continuing transfer of labor from the private agricultural sector (through 1973) even though jobs at home were becoming scarcer. This arrangement was adversely affected by the 1973–1975 recession, however. The reversal in the labor outflow abroad, combined with the inflationary price shocks and macroeconomic turbulence of the last decade, adversely affected the labor market. On the one hand, supply pressures called for a quicker pace of job creation; on the other, demand conditions called for the slowdown. For example, the rates of growth of the Yugoslav GMP decreased from 6 percent in 1966–1970 to 5 percent in 1971–1975 to 4 percent in 1976–1980. In the period from 1981 to 1984 it averaged 0.8 percent a year.²¹

The main constraint in job creation has been Yugoslavia's balance of payments. If job creation is financed by borrowing, aggregate disposable income increases. Consumer expenditure on imports increases, while exporters find that their goods can be sold on the domestic market. Therefore, imports rise, exports fall, and the balance of payments deteriorates. If we are correct here, it is easy to appreciate the difficulties confronting the policymakers in their attempts to cope with the unemployment problem in the early 1980s, when the burden of servicing the debt reversed the current of events.

A growing number of job-seekers could do one of the following: drop out of the labor force (especially women), register as unemployed, or seek employment away from home (either elsewhere in Yugoslavia or abroad). In the remainder of this paper we shall deal with each alternative.

The time series for potential labor supply, including all men aged 15 to 66 and all women aged 15 to 60, shows an upward trend, as does the series for all persons who are employed or seeking employment.²² The actual labor supply (S_A) decreased in absolute terms between 1965 and 1967, and then continued to grow at a slower rate than in the earlier years. The potential labor supply (S_p), on the other hand, has continued to grow, but at a faster rate than the actual supply (S_A). The increasing gap between series implies a fall in the participation rate (S_A/S_p).²³

21. *Privredni bilansi-Jugoslavije, 1984.*

22. The workers temporarily employed abroad are included here. The figure does not include the numerous workers who decided to take up permanent residence abroad.

23. The following may clarify the point: $S_A \equiv \frac{S_A}{S_p} \cdot S_p$

To what extent this decrease is a purely demographic effect, we cannot tell. Two additional factors, at any rate should be borne in mind. The downward trend may occur when an economy experiences above-average cyclical unemployment that then manifests itself through the, so-called, discouraged worker effect. Second, in an economy undergoing fast structural change an increasing tendency for labor displacement fuels the discouragement phenomenon. In any case, pressure from the supply side means added difficulties in employment creation.

Some evidence indicates that the fall in the participation rate was mainly due to a decrease in participation rates of young (ages 15 to 24) men and women, although between 1953 and 1971 participation rates for men fell in all age groups, while those for women over 25 increased in all age groups.²⁴ These statistics indicate that some segments of the potential labor supply left the labor force because they could not obtain employment and that the pressures from the supply side will require an extra effort in employment creation.

The data show that the unemployment rate in Yugoslavia has been steadily rising over a period of twenty-four years. In the period following 1971, however, the trends changed sharply (see table 9). While the gross unemployment rate grew between 1961 and 1971 by 3.66 percent a year, between 1971 and 1984 the rate grew at 9.01 percent. The total unemployment rate started its rise earlier, however. The opening of borders in 1964 resulted in the outflow of workers abroad. This fact indirectly points out how useful a safety valve the emigration (ostensibly temporary) was in dealing with the unemployment problem in the second half of the 1960s.

The complete explanation of the unemployment problem is complex and out of the scope of this paper. We would like, however, to point to two aspects of the unemployment problem we consider important, namely, age distribution and regional distribution.

A relatively poor country with large amounts of disguised unemployment and a high overall birth rate²⁵ is not able to provide enough places for all prospective job takers. The distribution of unemployed by age shows this quite clearly (see table 10). Constitutional arrangements in Yugoslavia guarantee each employed person the right to work, while other institutional arrangements make dismissals difficult. Therefore, institutional rigidities with regard to hiring and firing of workers make the labor market forces a rather blunt tool in the worker's self-managed economy. In practice, the burden is placed on the shoulders of those who are least responsible for the state of affairs and who are least capable of fending for themselves: namely, *new entrants* into the labor market, be they rural residents, women, or young workers.

In 1965 youth (those younger than 25) made up nearly 42 percent of the unemployed; in 1984, their share rose to 60 percent: an increase of 43 percent. To compute the contribution of the youth to rising total unemployment we must examine their participation in the labor force over time. The proportional contribution of the youth group to the change in the total unemployment rate is given by the following formula:

If, over a given period S_A/S_p behaves precisely like S_p , actual labor supply depends on demographic factors, if not the participation rate requires explanation.

24. D. Mladenović, "Economically Active Population," *Yugoslav Survey* 16 (August 1975): 10.

25. The country really has an average birthrate with a stupendously high rate, at one extreme, in Kosovo and an alarmingly low one in Croatia. The other republics fall in between these two.

Table 9. Unemployment Rates in Yugoslavia, 1961–1984

Year	Gross unemployment rate	Standard unemployment rate	Total unemployment rate
1961	2.45	5.69	2.80
1962	3.00	6.79	3.51
1963	2.91	6.49	3.88
1964	2.63	5.67	3.88
1965	2.92	6.20	4.45
1966	3.21	6.87	5.17
1967	3.27	7.20	5.64
1968	3.89	8.19	6.92
1969	4.09	8.36	8.93
1970	3.91	7.82	10.47
1971	3.51	6.88	10.82
1972	3.79	7.12	11.94
1973	4.59	8.31	13.55
1974	5.34	9.21	13.66
1975	6.31	10.37	14.04
1976	7.35	11.62	14.51
1977	7.99	12.17	14.85
1978	8.30	12.22	14.97
1979	8.53	12.16	15.08
1980	8.78	12.15	15.31
1981	8.99	12.15	15.37
1982	9.58	12.61	15.89
1983	10.11	12.99	15.95
1984	10.77	13.50	16.32

Source: E. Primorac, *Analiza Radne Snage kao Faktora Dugoročnog Razvoja*, appendix A.

Table 10. Unemployment Distribution by Age, Yugoslavia
(Selected years)

Age	1961	1965	1975	1980	1984
Up to 24	35.9	41.8	54.4	55.5	60.0
25–39	40.5	39.4	33.3	33.2	31.8
40–49	16.3	12.6	8.9	7.9	5.5
50 or more	7.3	6.0	3.4	3.3	2.6

Source: S.G.J.—1968, table 104-12, 102; S.G.J.—1983, table 105-14, 139; S.G.J.—1985, table 105-14, 139.

$$\frac{u_t(w_t - w_{t-1})}{U_t - U_{t-1}} + \frac{w_t(u_t - u_{t-1})}{U_t - U_{t-1}}$$

U = total unemployment rate

u = youth unemployment rate

w = ratio of youth labor force to total labor force.²⁶

The first term of the formula is the effect of changing weights, while the second term is the effect of the changing youth unemployment rate. Their net effect provides us with the contribution of the youth group to changes in the overall unemployment rate. Since labor force data are only available in the censal years we would be limited to only one calculation, between 1971 and 1981. Employment data, on the other hand, are not available by the age categories used here. Therefore we had to settle for the information pertaining to the age group known as *omladina* (up to 27 years of age).²⁷ Data about youth employment and unemployment are, unfortunately, only available for five years (see table 11). These enable us to decompose contributions by young workers to the rise in total unemployment into two separate contributions: the contribution emanating from changes (if there are changes) in the group's share in the total labor force (w_i), and the contribution emanating from rising unemployment (u_i) within the youth group (see table 12).

The youth unemployment rate increased considerably during the 1970s. It increased from 15.4 percent in 1972 to 33.0 percent in 1983. Over the same period the share of young workers in the labor force rose slightly from 24.57 percent to 25.11 per-

$$26. \quad u_i = \frac{u_i}{LF_i} \quad w_i = \frac{LF_i}{LF}, \text{ where } LF = \text{labor force}$$

$$U = \sum_{i=1}^n u_i \cdot w_i$$

$$\Delta U = U_t - U_{t-1} = \sum_{i=1}^n (u_i \Delta w_i + w_i \Delta u_i + \Delta w_i \Delta u_i)$$

for sufficiently small one period change: $\Delta w_i \Delta u_i \approx 0$.

Therefore, we can write:

$$1 = \frac{\sum u_i \cdot \Delta w_i}{U_t - U_{t-1}} + \frac{\sum w_i \cdot \Delta u_i}{U_t - U_{t-1}}, \text{ and for the } i\text{th group, contribution to the change in unemployment is,}$$

$$\frac{u_i^t (w_i^t - w_{i-1}^t)}{U_t - U_{t-1}} + \frac{w_i^t (u_i^t - u_{i-1}^t)}{U_t - U_{t-1}}$$

when $\Delta w_i \Delta u_i \neq 0$, the system of crossweights eliminates the unexplained residual:

$$\frac{.5[u_i^t (w_i^t - w_{i-1}^t) + u_{i-1}^t (w_i^t - w_{i-1}^t)]}{U_t - U_{t-1}} \quad \text{must be calculated, and}$$

similarly for the change in weights. Table 11 contains the crossweighted unemployment and participation rate changes. See E. Primorac and M. F. Charette, "Regional Aspects of Youth Unemployment in Yugoslavia," *Economic Analysis* 21 (1987).

27. This turn forced us to adjust the unemployment data to fit the same age group. We took two-fifteenths of the unemployed from the age group 25 to 39 and added it to the youth group (15–24). This, we feel is a conservative estimate and the error, if it is an error, goes in favor of the young workers (*omladina*).

Table 11. Social Sector Employment, Unemployment, and Labor Force, Yugoslavia, Total and Young Workers on 31 December
(In thousands)

	1972	1974	1978	1981	1983
Total employment:	4,168.4	4,489.1	5,325.5	5,872.8	6,125.8
Total unemployment	333.5	478.5	737.9	833.2	916.3
Labor force	4,501.9	4,967.6	6,063.4	6,706.0	7,042.1
Standard unemployment rate (total unemployment to labor force)	7.41	9.63	12.17	12.42	13.01
Youth employment	936.2	1,064.4	1,210.6	1,237.0	1,185.2
Youth unemployment	170.1	282.3	437.3	475.3	582.8
Youth labor force	1,106.3	1,346.7	1,647.9	1,712.3	1,768.0
Standard unemployment rate for youth	15.4	21.0	26.5	27.8	33.0
Labor force weight (youth labor force to labor force)	24.57	27.11	27.18	25.53	25.11

Source: S.G.J.—1985, table 105-9, 136; table 105-13, 139. S.G.J.—1983, table 105-14, 139.

Table 12. Contributions of Youth Unemployment to Changes in the Total Unemployment, 1972–1983

Period	% Δw	% Δu	Net effect
1972–1983	2.33	78.07	80.40
1972–1978	11.49	60.34	71.83
1978–1983	–73.31	202.31	129.00

cent. These two effects produced a positive unemployment effect of 78.1 percent and positive weight effect of 2.3 percent to give us the net (total) effect of more than 80 percent.

Young workers, who accounted for slightly more than one-quarter of the total labor force in 1983, thus, were responsible for four-fifths of the rise in total unemployment between 1972 and 1983. Between 1972 and 1978 their contribution was lower, at 60 percent, although the share in the labor force was higher (27.5 percent). In the latter part of the period 1978–1983, their contribution increased considerably despite the fact that their share in the total labor force decreased (note the negative weight effect). In fact, the net effect exceeded 100, that is unemployment for other age groups decreased over the same period.

When there are large differences in earnings, theory suggests there will be movement out of low-paid sectors (or areas) into high-paid. We observed earlier a rapid movement out of the agricultural sector. One would expect that the unemployed persons would have an added incentive to leave home in search of work. In our research period the developed north of Yugoslavia consistently shows lower unemployment

rates under all definitions.²⁸ Interrepublican migration, however, has been very low. D. Breznik estimated that the ratio of migrants to average population was 0.4 percent between 1961 and 1971.²⁹ Interrepublican mobility was low because of social and cultural differences, which are important in this multinational entity, and, more importantly, past availability of employment abroad where incomes are higher. An average worker's wage in Germany, in the 1970s for example, was three times the Yugoslav average. The extent of this development can be seen when regional distribution of unemployment in the six constituent republics and two autonomous provinces is considered under all three definitions of the unemployment rate (see table 13). The difference between the standard and total unemployment rates shows to what extent temporary work abroad contributed to a short-term solution of the unemployment problem. We have our reservations about the long-term solution of the unemployment problem through mass emigration. Yugoslavia profited through workers' remittances—exporting labor was more remunerative than the tourist trade—but the costs are often neglected especially since most of them are not readily quantifiable.³⁰

The Yugoslav economy is beset with many serious difficulties: foreign debt is considerable, the balance of trade is still unsatisfactory, and import dependence for intermediate goods is quite annoying. Investment expenditures often do not (and may well continue not to) conform to efficiency criteria, inflation is rampant, and real incomes have been falling five years in succession.

The salient feature of the Yugoslav labor market is its dual nature. We addressed two aspects only, sectoral (social and private) and geographical (north and south), while attempting to throw some light on the age distribution of unemployment. This exercise shows that unemployment appears to be the most pressing problem in Yugoslavia today and, we believe, will remain so for some time to come.

Unemployment has grown tremendously and its age distribution has been frightening. How does one explain to the 60 percent of the unemployed who were younger than 25 in 1984 that they will not be able to be productive members of the new workers' self-managed society? When the workers who are temporarily employed abroad find that they are no longer required, what will they do? One need not fear for those abroad who are successful professionals, enterprising owners of businesses, or qualified workers who are in short supply; but what will become of a semiskilled or unskilled worker who already finds it difficult to hold a job? What of all those now employed in Yugoslavia who may tomorrow, through technological change, find their present jobs have disappeared? There are no easy answers to these questions, but the questions demand answers. The Yugoslav labor market is a problem area where a great deal of work remains to be done. The work is necessary because the market does not function satisfactorily. Yugoslav economists and political scientists take pride in pointing out the "specificities" of their system, but the specificities of their labor market, it appears, are not taken seriously. For Yugoslavia to reach full employment by 1990, for example, two million more jobs than existed in 1986 would have to be created. To achieve this increase, the economy must grow by 5.4 percent a year. Such a high rate of growth

28. Croatia does not fit the pattern when the total unemployment rate is used. Croatians emigrate more than others, but that is a matter worth another paper.

29. Quoted in Schrenk, Ardalan, and El Tatawi, *Yugoslavia: Self-Management Socialism*, 250.

30. See M. Babić and E. Primorac, "Benefits and Costs of Migration," Department of Economics, University of Windsor, Discussion Paper no. 27 and *Ekonomski pregled*, no. 11–12 (1975).

Table 13. Unemployment Rates by Republic and Autonomous Region, Selected Years

	Yugoslavia	Bosnia and Hercegovina	Montenegro	Croatia	Macedonia	Slovenia	Serbia	Kosovo	Voivodina
Standard rate:									
1961	5.6	4.1	5.8	5.3	12.9	2.0	6.3	16.1	4.1
1971	6.7	5.3	6.3	4.8	17.8	2.5	7.7	17.3	5.7
1981	12.6	14.1	15.2	5.6	22.3	1.5	14.9	27.6	12.5
1984	13.3	18.5	18.9	7.0	20.8	1.8	16.9	32.9	13.3
Gross rate:									
1961	2.4	1.6	2.6	2.7	5.8	1.3	2.1	4.7	2.2
1971	3.6	2.6	3.5	2.9	10.2	1.9	3.4	7.7	3.5
1981	9.6	10.6	12.9	4.4	16.1	1.3	9.2	20.9	9.4
1984	n.a.								
Total rate:									
1961	6.4	5.4	6.2	6.4	15.1	2.4	6.9	17.1	4.7
1971	19.4	23.5	13.8	21.7	22.0	10.0	16.5	30.6	17.0
1981	15.4	18.8	16.3	14.3	21.6	6.2	12.8	26.2	15.3
1984	n.a.								

Source: See table 4 (for 1961 through 1971); *S.G.J.*—1983 (for 1981), tables: 203-8, 440; 203-10, 441; 204-1, 446; 204-7, 452; *S.G.J.*—1985 (for 1984), tables: 204-1, 458; 204-7, 464.

implies further investment and borrowing abroad, while Yugoslavia is already experiencing difficulties in servicing the existing external debt.

Responsible practitioners have been offering ad hoc solutions: Encourage agriculture; invest in labor intensive projects; encourage employment in the tertiary sector; change the educational system so supply matches demand better; encourage investment in less-developed areas; allow higher incomes (through social compacts) for those whose skills are in short supply; encourage savings; expand employment by creating more jobs; encourage the establishment of small factories in rural areas; encourage small private enterprises in the service sectors and agriculture. Ten suggestions—some are very reasonable, some not; all would be more impressive if they included a thoroughly reasoned argument why any particular course of action should be taken. Such an argument is usually lacking. Let us, by all means, make a shopping list, but let us decide on the menu before we decide what ingredients to buy.

We can be quite certain that there will be no quick solutions. Expansion of economic activity is a necessary condition for the creation of new jobs. Given the nature of expansion the question is will it create enough vacancies to match the unemployed men and women? Without a concerted effort the labor market, as we know it today, will not do the job alone. In other words, unemployment will not be eradicated in the near future, and whether it will be there for a long time to come depends on the choice of available alternatives.