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Artemy M. Kalinovsky

Numbers in Space: Measuring Living Standards and Regional Inequality in the Soviet Union

In his 1964 textbook *Ekonomicheskaja Geographia* (Economic Geography), Petr Lavrishev extolled the economic transformation of Soviet republics that had once been colonies of the Russian empire.¹ The Soviet Union covered a vast territory roughly matching the borders of the Russian empire that had collapsed in 1917, but reorganized into national sovereign republics. The tenth congress of the Bolsheviks in 1921 had made equalizing levels of development one of the party's priorities. These priorities were largely forgotten as the Soviet Union under Joseph Stalin chose crash industrialization in anticipation of a major conflict. By the time Lavrishev published his textbook in 1964, the Soviet Union was a very different place than it had been 40 years earlier. But Lavrishev's textbook glossed over the enormous discrepancies that remained. Major cities like Moscow and Leningrad were recovering from the war, growing rapidly, and had the best schools, doctors, public transportation, and the most well-stocked stores. To the east and north, in the Ural mountains and beyond, the earth contained enormous resources of hydrocarbons and precious metals, but long, dark winters made life difficult. Further south were the Central Asian republics and the Caucasus, conquered by the Russian empire over the course of the eighteenth and nineteenth centuries. With the exception of larger cities like Baku in Azerbaijan or Tashkent in Uzbekistan, these regions had seen very little industrialization; indeed, the priorities of Stalin's crash industrialization program essentially condemned these regions to becoming commodity producers for the rest of the USSR.

Even as Lavrishev was writing his textbook, Soviet planners were trying to confront these disparities. By the mid-1950s, with Stalin dead and a new leader-

Note: The author would like to thank Julia Chernyavskaya, Alessandro Iandolo, and Eva Rogaar for assistance with archival materials, and Vanni Pettina, Yakov Feygin, Isaac Scarborough, Corinna R. Unger, and Jack Loveridge for their comments on earlier drafts. This article was prepared as part of the ERC project *Building a Better Tomorrow: Development Knowledge and Practice in Central Asia and Beyond, 1970–2010*, which is based at the University of Amsterdam (ERC 865898).

1 A.N. Lavrishev, *Ekonomicheskaja Geografija SSSR* (Moscow: Ekonomika, 1964), 175–177.

ship trying to revitalize the Soviet project and compete with the United States for the allegiance of the decolonizing world, questions of equality and standards of living once again came to the fore. Yet how should planners measure equality, let alone achieve it, across a land as large and diverse as the USSR? What kind of indicators would reveal how the Soviet Union was doing? What really counted in building a developed socialist society? Was it levels of industrialization? The percentage of the labor force employed in industry? Access to education, cultural institutions, and consumer goods? Participation of women in the workforce? These questions occupied Soviet politicians, planners, and scholars, as well as observers of the USSR in the west. What became clear in the 1950s, however, was that to understand equality in the USSR, Soviet planners would have to get better at understanding how its population lived; as they tried to do so, they also engaged in debates about what really mattered. Discussions about how and what to measure inevitably became discussions about what development and equality were really about.

This article investigates the history of measurement in the USSR from the perspective of the Council on Productive Forces (SOPS), a research institute attached to the main Soviet State Planning organ (GOSPLAN) for most of the post-war period.² There are several reasons that SOPS provides a useful window for thinking about measurement of development in the USSR. First, it was intimately tied to planning: SOPS had an expansive research program, but its main function was producing long term plans for the territorial placement of industry that would serve as guides for GOSPLAN's five-year plans.³ Second, SOPS' remit meant that its researchers had to toggle between (and redefine) different under-

² In this article I draw primarily on the SOPS materials from the Russian State Archive of the Economy (RGAE), fond 399, the Archive of the Russian Academy of Sciences (ARAN) (especially Nikolai Nekrasov's papers in fond 1825 and the social science section, fond 1731), as well as publications in economics and planning journals from Moscow and the republics. The SOPS collection and those of the Academy of Sciences are particularly valuable because they contain not only studies and reports, but also discussions of those reports and ongoing research projects.

³ Despite this, SOPS has received very little attention in accounts of Soviet planning, including books focused on regional issues. See, for example, Michael Ellman, *Socialist Planning* (Cambridge: Cambridge University Press, 2014); Peter Rutland, *The Politics of Economic Stagnation in the Soviet Union: The Role of Local Party Organs in Economic Management* (Cambridge: Cambridge University Press, 1993). The organization gets one mention in Jan Ake Dellenbrant, *The Soviet Regional Dilemma: Planning, People and Natural Resources* (New York: Routledge, 2017), 68. The "spatial turn" in Russian and Soviet history has thus far largely bypassed the history of Soviet spatial planning. For an exception, see Marina Loskutova, "Regionalization, Imperial Legacy and the Soviet Geographical Tradition," in *Empire De/Centered: New Spatial Histories of Russia and the Soviet Union*, ed. Maxim Waldstein and Sanna Turoma (London: Routledge, 2013), 135–158.

standings of space. Finally, SOPS did not do this work alone, but coordinated the research of hundreds of research institutes across the USSR. Tracking the development of measurement through this organization is thus particularly fruitful for understanding the importance of these issues for the USSR as a whole. By tracing the way that SOPS dealt with issues of territorial planning, migration, and equality in living standards across the USSR, we can better understand the particular challenges of measurement created by Soviet planning practices and ideological commitments.

The article proceeds in the following manner: first, it provides an overview of changing Soviet development priorities from the 1930s through the post-war decades. It then presents the history of SOPS and its changing research agenda over the course of the 1960s and 1970s, with particular reference to migration and living standards. For most of the period under discussion, SOPS was led by Nikolai Nekrasov, and the history of the institution is inseparable from Nekrasov's attempt to articulate a new "science," regional economics, that would allow Soviet planners to make sense of their diverse country.⁴ Without abandoning SOPS' original grounding in physical geography, Nekrasov sought to establish a multi-disciplinary research program which could incorporate demography, sociology, ecology, and economics, and incorporate research from those fields into Soviet planning. The political implications of what SOPS was doing is further highlighted in the third section, which deals with the controversies over Nekrasov's book *Regional Economics* and his wider research program. Nekrasov's opponents felt that his program not only undermined the effectiveness of the planning system but the professionalism of the disciplines he sought to integrate. They also found his focus on regional inequality politically dangerous. The story of Nekrasov's bureaucratic struggles highlights the fraught nature of what SOPS was expected to do. But although Nekrasov ultimately left SOPS to focus on more academic research work within the Academy of Sciences, his colleagues at SOPS continued the research tradition begun under his leadership. The final section traces some of this research and the debates it engendered, paying particular attention to the limits of measurement confronted by researchers involved in these efforts.

The anthropologist Sally Merry Engle argued that quantification – the use of numerical indicators – in the fields of global governance and social reform has a

⁴ I find quite helpful Egle Rindzeviciute's statement that "Research on Soviet technocracy, therefore, should focus on the links between the production of formal knowledge, informal social relations, and decision processes as a matter of elaborate discursive construction." Egle Rindzeviciute, *The Power of Systems: How Policy Sciences Opened up the Cold War World* (Ithaca: Cornell University Press, 2018), 18.

knowledge effect and a governance effect. The former produces a “world knowable without context or history”; the latter reflects the role these measurements play in decision-making, legitimation, and thus power.⁵ Indicators are seemingly objective but reflect the “theories and values” of their authors; they can serve the causes of reform as well as control.⁶ SOPS’ research was both technocratic and highly political. The question of living standards and equality was in and of itself highly political, insofar as it reflected Soviet ideological commitments, the way the USSR presented itself to the world, and the way the Soviet state presented itself to its own citizens. SOPS was charged with making political issues technocratic by identifying problems and providing planners with the tools to address them in a way consistent with ideological commitments and economic interests. Further, it was supposed to act as a counterweight to regional politics and lobbying by rationalizing decisions about placement and investment. But the research conducted and coordinated by SOPS was only partially successful in making these questions technocratic. Lobbying continued to play a large role in planning decisions. More importantly, the work on inequality and standards of living forced politicians, planners, and researchers to broaden and deepen their understanding of these problems. The definition of living standards changed over time, in part as a result of this work. The research on living standards, developed in a technocratic setting, ultimately contributed to heated debates about inequality in the USSR in the late 1980s. Finally, the search for new methods and techniques to gain an ever more intimate view of the population ultimately undermined the rationale for planning.

Changing Development Priorities

The Soviet Union was arguably the world’s most ambitious developmental state. In the 1930s, it undertook collectivization of agriculture and a crash industrialization campaign that led to the death of millions of peasants in Ukraine, as well as parts of Russia and the North Caucasus, and some 1.8 million Kazakhs. Simultaneously, the Soviet state tried to centralize production through a system of directive planning, effectively eliminating private enterprise and trade. The So-

⁵ Sally Engle Merry, “Measuring the World: Indicators, Human Rights, and Global Governance,” *Current Anthropology* 52, no. 3 (2011): 584–585.

⁶ Sally Engle Merry, “Measuring the World”, 585. Also see Morten Jerven, *Poor Numbers: How We are Misled by African Development Statistics and What to do About It* (Ithaca: Cornell University Press, 2013), 5–6; Sally Engle Merry, *The Seductions of Quantification: Measuring Human Rights, Gender Violence, and Sex Trafficking* (Chicago: University of Chicago Press, 2016).

viet leadership under Joseph Stalin achieved its goal of industrializing the country and preparing it for world war. Not only was the human and ecological cost of crash industrialization enormous, however, but this approach to development left the economy with serious disproportions. The Soviet economy was oriented towards producer industries, with few resources dedicated to consumer production; agricultural production proved sufficient to support the industrialized workforce, but only barely.⁷ Industry was concentrated in European cities and newly developed sites in the Urals and Siberia, like Magnitogorsk.⁸ Large parts of Central Asia were supposed to focus on cotton production, in essence (re)creating a colonial dynamic.

After Stalin's death in 1953, his successors tried to overcome some of these disproportions without, however, giving up on the planning system. Nikita Khrushchev, who beat out his rivals to become the General Secretary of the Communist Party of the Soviet Union and eventually Chairman of the Council of Ministers, promised that the Soviet Union would "catch up and overtake" the United States in agricultural production. At the same time, Khrushchev also sought to undo some of the regional disproportions caused by Stalinist development: while Central Asia would remain a cotton producer, it would also get resources for industrialization and to raise standards of living to the union average.⁹ Both of these shifts had domestic as well as Cold War priorities. The Soviet Union was beginning to present itself as a supporter of decolonizing states in Asia, Africa, and the Middle East; Central Asia, a region colonized in the nineteenth century by the Russian empire, was supposed to serve as proof that the USSR had overcome its imperial origins. More broadly, rising standards of living were to demonstrate that Soviet socialism was a better developmental model than western capitalism. The measurement of living standards became one element of "peaceful coexistence," Khrushchev's attempt to compete with capitalism without military confrontation.¹⁰

7 Robert C. Allen, *Farm to Factory: A Reinterpretation of the Soviet Industrial Revolution* (Princeton: Princeton University Press, 2003); Jenny Leigh Smith, *Works in Progress: Plans and Realities on Soviet Farms, 1930–1963* (New Haven: Yale University Press, 2014).

8 Stephen Kotkin, *Magnetic Mountain: Stalinism as Civilization* (Berkeley: University of California Press, 1995).

9 Artemy M. Kalinovsky, *Laboratory of Socialist Development: Cold War Politics and Decolonization in Soviet Tajikistan* (Ithaca: Cornell University Press, 2018).

10 S. A. Bakanov and A. A. Fokin. "A pri kommunizme vse budet: gosudarstvennoe planirovaniye urovnia zhizni Sovetskogo cheloveka," *Noveischaia istoria Rossii* 9, no. 2 (2019): 420–436. As Yakov Feygin points out, the numbers that Khrushchev produced in his speeches were not based on any serious calculations. Yakov Feygin, *Building a Ruin: Economic Thought and the International Politics of Soviet Reform* (Cambridge, Mass.: Harvard University Press, forthcoming 2023).

The shift in priorities did not mean the abandonment of planning. The planning system expanded, drawing on expertise from economists, sociologists, demographers, geographers, and other specialists. All of these fields had been either eliminated as “bourgeois science” in the 1930s or had been marginalized, but were revived in the 1950s. Working in semi-autonomous institutes within the Academy of Sciences or directly for the main state planning organ (GOSPLAN), specialists in these fields refined techniques for studying resources and needs and predicting behavior to perfect planning. The group of people involved in planning also became more diverse as it expanded. While agencies located in Moscow might still have recruited primarily from the European parts of the USSR, every republic expanded its own planning bodies and research institutes, and these recruited primarily from the republic’s titular population.

Finding better data for models was one motivation for expanding research into socio-economic questions, but there were at least two others: managing migration and mitigating regional inequality. Following Stalin’s death, the USSR abandoned mass incarceration and repression, and thus also the practice of forced relocation for agricultural and industrial development. After the chaos of the Virgin Lands Campaign, when thousands of poorly prepared urbanites descended on the steppes of Kazakhstan to help grow wheat, the Soviet Union gradually de-emphasized mobilization as well. Instead, as planners sought to develop industries in resource-rich parts of Siberia or labor-rich Central Asia, they were forced to pay more attention to the conditions that would make people come and stay in these new locations. As the Khrushchev era gave way to what historians now call “late socialism,” commitment to raising living standards across the USSR only increased; the Communist Party de-emphasized reaching full communism and focused instead on improving conditions under “real existing socialism.”¹¹ Although nominal equality was easily achieved by limiting the range of formal incomes paid across professions and regions, actual equality of living standards was another matter. But understanding how people lived – and what people thought of as good living across a land as large and diverse as the USSR – required planners to expand their toolkit and set up institutional collaborations allowing them to get a closer look at life in Central Asian villages, Siberian cities, and collective farms in the Caucasus. This, in turn, raised the profile of social scientists and planners from those areas, expanding their ranks and

¹¹ See James R. Millar, “The Little Deal: Brezhnev’s Contribution to Acquisitive Socialism,” *Slavic Review* 44, no. 4 (1985): 694–706; Artemy M. Kalinovsky and Dina Fainberg, *Reconsidering Stagnation in the Brezhnev Era: Ideology and Exchange* (Lanham: Lexington Books, 2016); Natalya Chernyshova, *Soviet Consumer Culture in the Brezhnev Era* (London: Routledge, 2013).

drawing them into the planning process within their own republics and even in Moscow.¹²

Soviet debates about measuring domestic development paralleled (and were informed by) global discussions.¹³ As Stephen Macekura notes in *The Mismeasure of Progress: Economic Growth and its Critics*, dissatisfaction with the limits of Gross Domestic Product as an indicator of welfare – led academics, governments, and international organizations to look for new measures that could better capture how people lived and devise policies to address problems such indicators highlighted. The UN Statistical Commission sought to help governments “develop social statistics which relate directly and immediately to social concerns of the general public and political authorities.”¹⁴ Economists designed new indicators like the Physical Quality of Life Index that captured things like infant mortality, life expectancy, and literacy.¹⁵ Not all of the new measurements impacted policy directly, but together they drew the attention of governments, NGOs, and development organizations to realities they had previously ignored, contributing to the emergence of such paradigms as “Basic Needs” in the World Bank and the Women in Development initiative promoted through the United Nations.¹⁶ As we will see, while Soviet planners never quite settled on the “right” mix of indicators, the search for those indicators contributed to changing conceptions of living standards and equality.

12 Artemy M. Kalinovsky, “Central Planning, Local Knowledge? Labor, Population, and the ‘Tajik School of Economics,’” *Kritika: Explorations in Russian and Eurasian History* 17, no. 3 (2016): 585–620.

13 Alden Young, “Measuring the Sudanese Economy: A Focus on National Growth Rates and Regional Inequality, 1959–1964,” *Canadian Journal of Development Studies / Revue Canadienne d’études Du Développement* 35, no. 1 (2014): 44–60; Stephen Macekura, *The Mismeasure of Progress: Economic Growth and Its Critics* (Chicago: University of Chicago Press, 2020); Michele Alacovich, “The World Bank and the Politics of Productivity: The Debate on Economic Growth, Poverty, and Living Standards in the 1950s,” *Journal of Global History* 6, no. 1 (2011): 53–74.

14 Macekura, *Mismeasure of Progress*, 142.

15 Macekura, *Mismeasure of Progress*, 144–150.

16 Martha Finnemore, “Redefining Development at the World Bank,” in *International Development and the Social Sciences: Essays on the History and Politics of Knowledge*, ed. Frederick Cooper and Randall Packard (Berkeley: California University Press, 1997), 203–227.

Spatial Planning: From Physical Geography to Human Behavior

The Council on Productive Forces was not the most obvious Soviet institution to study inequality. The council had its roots in the Committee for the Study of Productive Forces, established within the Imperial Academy of Science in 1915 under the leadership of the legendary scientist V. I. Vernadsky. The committee's immediate purpose was to help compile and coordinate information about the empire's natural resources so that they could be better mobilized for the war effort.¹⁷ The committee survived the 1917 revolutions along with the rest of the Academy, and its importance only grew with the Soviet government's adoption of rapid industrialization and planning at the end of the 1920s. The committee was reorganized into the Council of Productive Forces in 1930, and, still within the (now USSR) Academy of Sciences, became the central body responsible for mapping out the country's natural resources by carrying out "complex expeditions" staffed by geologists, chemists, and other scientists. SOPS carried out some 40 to 50 expeditions a year. Branches of SOPS were opened in almost every Soviet republic as well as many autonomous republics.¹⁸ As with many aspects of the USSR, the imperial legacy of SOPS proved durable; it was only in the 1960s that SOPS would make the transition from an institution that focused primarily on identifying resources for the union's economic needs (the council's original purpose in the last years of the Tsarist empire) to one that produced research meant to promote equality across the USSR – though it never abandoned its initial function.

In 1960, SOPS was transferred to the USSR's State Planning Committee (GOSPLAN), a move that should be understood in the context of earlier problems with Khrushchev's economic reforms. The need for expert involvement was brought home after Khrushchev's initial push for increasing living standards led to falsification as regional and republican officials scrambled to meet targets set in the center.¹⁹ Expertise was supposed to help overcome the kind of "voluntarism" among local officials that led to disproportions or, worse, outright fraud. But a stronger embedding of territorial planning could also help overcome the tension

¹⁷ Loskutova, "Regionalization, Imperial Legacy."

¹⁸ Alexander G. Granberg, "Izuchenie proizvoditel'nykh sil Rossii," *Vestnik Rossiyskoy Akademii Nauk* 66, no. 7 (1996): 579–584.

¹⁹ Oleg Khlevniuk, "The Economy of Illusions: The Phenomenon of Data Inflation in the Khrushchev Era," in *Khrushchev in the Kremlin: Policy and Government in the Soviet Union, 1953–1964*, ed. Jeremy Smith and Melania Ilic (London: Routledge, 2011), 171–189.

between sectoral organization of production and regional development. Khrushchev had also tried to replace the sectoral ministries, which undermined planning by lobbying and hoarding resources for their own industries, with regional economic councils (*Sovmarkhoz*) that would coordinate economic activity, including the development of social infrastructure. The elimination of the councils after 1962 put decision-making power back in the hands of sectoral ministries, while also increasing the need for coordination of industrial placement, social infrastructure, and labor resources.²⁰

From that point on, SOPS would be more directly involved in planning by helping to “rationalize” the placement of industry; its research and calculations were supposed to diminish the role of lobbying by offering instead complex analysis of all factors of production in a given space.²¹ Among SOPS’ tasks was the creation of long-term pre-planning studies for the placement of industry, which in turn were supposed to guide the investment decisions of the main planning organs.²² Increasingly, it was also called upon to provide advice not just on the available natural resources, but more complex assessments on the viability of investment in a given territory. That meant, among other things, studying labor resources. SOPS began to cooperate and coordinate its work with research institutes across the USSR, including those focused on issues of labor and demography.²³ In all, SOPS coordinated the work of 400 to 500 institutes and government agencies, including institutes of labor, demography, and geography in Moscow and at the republic level.²⁴

SOPS’ ambitions and research in this period highlighted a tension within Soviet economics between mathematically inclined modeling and research more rooted in political economy. Indeed, SOPS’ initial foray into studying research into labor, consumption, and related issues may have been motivated by the need for better data for models that could be employed in decisions about industrial placement. These models were supposed to help planners consistently pre-

20 Peter Rutland, *The Politics of Economic Stagnation*, 95.

21 Khrushchev in a way exacerbated the problem of lobbying by raising the profile of republican and regional leaders as he built up his own political base after Stalin’s death. He complained about the wasteful “parallelism” that resulted from regional and republican leaders’ insistence on building industrial plants on their territory. *Nikita Sergeevich Khrushchev: Dva tsyeta vremeni*, ed. N. G. Tomilina et al. (Moscow: Demokratsiia, 2009), 686–687. See also Rutland, *The Politics of Economic Stagnation*, 93–96.

22 N. Batova, “Novoe v razmeshenie proizvoditel’nykh sil,” *Voprosy ekonomiki* 11 (1967): 159–160; RGAE, Fond 399, opis 1, delo 1036.

23 Granberg, “Izuchenie.”

24 The first figure is from 1963, in RGAE, F. 399, op. 1 d. 1036, 33; the second from 1968, in RGAE, F. 399, op. 1 d. 1686, 18. See also Batova, “Novoe v razmeshenie.”

dict the effectiveness of placing an industry in a given area – taking into account the cost of infrastructure, availability of raw materials, transport costs, and labor.

Throughout the 1950s SOPS had been led by V. I. Nemchinov, who, unlike his predecessors, was an economist, and one of the pioneers of adopting input-output analysis to the Soviet planned economy. Input-Output tables had been developed by Wassily Leontieff, a Soviet émigré who had spent most of his career abroad, first in Germany and then in the US. Input-Output analysis allows the study of inter-industry relationships, and the effect of increasing or decreasing production of intermediate goods. Input-Output tables could also be expanded to account for transportation or, for that matter, labor.²⁵ Nemchinov had overseen experiments with input-output tables from his perch at the Laboratory for Economic-Mathematical Methods at the USSR Academy of Sciences.

The quality and usefulness of any input-output table, or of any model for that matter, depends on the information provided. And here the information available from Soviet statistics came up short. As V. S. Kossov, then one of Nemchinov's deputies, explained: "The emphasis [in government statistics] is not on the detailed analysis of the structure of expenditures – no matter how necessary this analysis is for the construction of an input-output table." The solution was to conduct detailed investigations of enterprises to decipher categories such as "cost of raw materials, components, fuel, energy, wages, amortization."²⁶ But such studies were only practical for large enterprises; they left out smaller enterprises, as well as "individual non-socialized economic units which produce a still appreciable part of the agricultural output. This single exception, when its operation is on a large scale, requires that selective investigations be made of the budgets of the families of collective farmers (kolkhozniks), workers and servants."²⁷ While input-output analysis only played a limited role in Soviet planning, the methodological problems raised by Kossov continued to occupy SOPS researchers over decades that followed.²⁸

The decision to develop sparsely inhabited northern regions created a problem that was both technical and ideological. Regional plans were supposed to guarantee a "roughly identical standard of living in every region."²⁹ How was the government supposed to convince people to move to regions where sub-

²⁵ Wassily Leontieff, *Input-Output Economics* (New York: Oxford University Press, 1986).

²⁶ V. V. Kossov, "Regional Input-Output Analysis in the U.S.S.R.," *Papers in Regional Science* 14, no. 1 (1964): 175–181, 176.

²⁷ Kossov, "Regional Input-output," 176.

²⁸ Murat Albegov and Alexander Granberg, "Regional and Multiregional Modelling in the U.S.S.R.," *Papers in Regional Science* 66, no. 1 (1989): 77–86.

²⁹ Kossov, "Regional Input-Output," 175.

zero temperatures dominated for much of the year and there was no sun during the winter months? Or, for that matter, to work in areas where the daytime temperatures in the summer months were above 40 degrees Celsius? The big agricultural and infrastructure projects of the Khrushchev era showed that mobilization and enthusiasm was still enough to get people to move to the Virgin Lands or the large dams being built at Bratsk in Siberia or Nurek in Tajikistan, but not enough to keep them there.³⁰ More broadly, demographic analysis clearly showed that people tended to leave Siberia even as government propaganda celebrated the movement of people to “new lands.”³¹ Finally, intra-republic and intra-regional migration patterns also defied expectations. In the Central Asian republics especially, local planners and party leaders had successfully lobbied for industrial investment, arguing that the region’s booming population, mostly occupied in the countryside, would flock to new factories. Instead, the rural population seemed to stay put, and the new factories ended up recruiting workers from the European parts of the USSR or Siberia. The demographer Boris Uralnis explained the stakes of getting incentives right: “the existence of migration patterns that contradict the economic goals of the country, shows that the population will quickly react to any errors made by our planning and economic organs. Equal pay with differing costs of living are the main source of individual migration in an undesirable direction.”³² In other words, if planners wanted to get people to move and stay in areas where they needed labor, they needed to think in a more comprehensive way about what people needed to live an acceptable life.

Soviet planners had not ignored these questions before. Even during the crash industrialization of the 1930s, party leaders and managers were expected to provide workers with schools, health clinics, stores, and cultural institutions.³³ Party officials and inspectors were expected to report back on the construction of such facilities at new industrial sites. But the new conditions created by the turn away from mass mobilization and forced resettlement on the one hand, and the greater role assigned to economists and other social scientists in the planning process on the other, changed how these problems were studied

30 Especially in the early years of construction, when as many workers arrived as left in a given year. Even at the end of the decade Nekrasov complained that planners had gotten Nurek wrong by failing to plan for the transformation of a construction site into a long-term industrial complex. Kalinovsky, *Laboratory of Socialist Development*, 91–116.

31 Interview with demographer Zhanna Zaionchkovskaia, accessed January 11, 2021, https://www.samddn.ru/eto-interesno/kak_izuchali_migratsiju/?type=pda.

32 ARAN, F. 1877, op. 8, d. 519.

33 Kotkin, *Magnetic Mountain*.

and how they could be factored into planning. SOPS and its partners had to find new methods to make sense of these developments.

From the 1960s onwards, labor and population questions gained increasing prominence within SOPS as well as within its republican branches.³⁴ Researchers working in Moscow had unparalleled information about population trends, migration flows, salaries, costs of living, and access to services and consumer goods collected around the USSR. But Nikolai Nekrasov, who took over as chairman in 1964, also recognized that material gathered in Moscow was insufficient, and that effective planning required partnering with local institutions to get more granular detail. One had to be able to zoom in and out to make sense of how people lived across the USSR. At a meeting at the Academy of Sciences in June 1968 he used the example of demographic patterns to illustrate this point: from far away, it looked like Central Asia and the Caucasus had very similar demographic patterns. But when one looked at more closely, it became clear that there were big differences not just within the regions, but even within the individual republics. “If you take Kirgizstan,” Nekrasov said, “you see the same processes in the rural regions, connected to growing birth rates. But if you take the city of Frunze, the situation is completely different.” The only way to take this into account was to tackle these questions “together with sociological research” and bring in scholars active in the republics themselves.³⁵

Under Nekrasov, SOPS increasingly engaged in studies bridging geography, economics, sociology, and demographic research. These studies tried to make sense of the exceptions identified by Kossov – the kind of units and activity not captured in official statistics. But they also went further. Working with partner institutions, SOPS carried out large scale surveys to identify why people chose to stay or move, their desired family size, and life choices more broadly.³⁶ Over the course of the 1970s, as we will see below, SOPS and its various partner institutions carried out increasingly detailed analysis of how people lived, supplementing official statistics with survey work, to compare living standards using an array of categories.

The transformation of SOPS’ research agenda proceeded alongside – and informed – a larger discussion about defining and measuring development in the USSR. To an extent, Soviet agencies and many economists continued to use national income produced (NIP) and national income utilized (NIU) to calculate production and consumption in the USSR and in individual republics. Yet this

³⁴ ARAN, F. 591, op. 2, d. 2527.

³⁵ ARAN, F. 1731, op. 1, d. 96, 56–58.

³⁶ R. Galetskaiia, “Demograficheskaia situatsiia i trudovye resursy SSSR,” *Voprosy Ekonomiki* 10 (1973): 155–159.

included only the net value added in production, and did not include services or government.³⁷ Attempts by Soviet scholars to measure equality relied on dividing this income by the size of a population of a given republic or economic region.³⁸ As the reviewer of one such effort noted in 1972, such calculations could help compare industrial production and national income, but said little about living standards. More broadly, the reviewer noted, “the concept of ‘economic development’ is much broader than the contents of ‘productive forces,’ if only by the size of the service sector.”³⁹ In other words, national income was a decent indicator of living standards only if you assumed that levels of industrial production reflected people’s access to living space, amenities, pre-schools, healthcare, food, consumer products, and so on. Insofar as investments in these areas were indeed driven by industrial ministries (that might build pre-schools or health clinics for their workers, for example), such indicators were not useless, but they obscured enormous intra-regional differences. Moreover, the policy implication was that only industrial placement would raise standards of living. Yet, as we have already seen, people were not moving in the way that models had predicted they moved, forcing planners to revisit their assumptions.

The Soviet effort to find the right indicators and methods to understand the well-being of their population took place in parallel to developments in industrialized capitalist countries and among international development experts. SOPS in particular was actively studying the approach of foreign countries to regional planning, producing reports on the methods used in countries like Japan, France, and elsewhere. Nekrasov was an active participant if not a driver of this process. Nekrasov, both as head of SOPS and as the Chair of the Committee for International Research Ties, frequently traveled and received visitors. In 1971 alone, Nekrasov went to Poland, Hungary, and Japan to lecture on Soviet experience of regional planning, as well as to lecture the Japanese about the twenty-fourth party congress and Soviet development in Siberia and the far East.⁴⁰ That same year he led a delegation from SOPS to a UN organized meeting in Warsaw on the preparation of planning cadres.⁴¹ The archival record makes it difficult to track the actual influence of these interactions, because (in this and other cases) while it provides plenty of evidence of Soviet officials and scholars keenly ob-

37 I. S. Koropec'kyj, “Equalization of Regional Development in Socialist Countries: An Empirical Study,” *Economic Development and Cultural Change* 21, no. 1 (1972): 68–86.

38 M. Bakhrakh, “L.N. Telekop, Urovni Ekonomicheskogo Razvitiia Raionov SSSR (Ekonomoika, 1971),” *Voprosy Ekonomiki* 8 (1972): 143–145.

39 Bakhrakh, “Telekop,” 143.

40 RGAE, F. 399, op. 1, d. 1259, 11.

41 RGAE, F. 399, op. 1, d. 1257.

serving and analyzing the work of their counterparts, those same individuals were less keen on admitting the influence of foreigners on their own work. As we will see, moreover, Nekrasov had good reason to avoid highlighting his interest in foreign methods too much. Even as such cooperation was encouraged in the 1960s and 1970s, the charge of copying “bourgeois” models could get one into much trouble.

Regional Economics and Economic Geography

Nikolai Nekrasov was nothing if not ambitious for what SOPS could accomplish; not surprisingly, he made enemies. While the conflicts that preceded Nekrasov’s retirement from SOPS in 1979 were rooted in academic and bureaucratic politics, they also revealed SOPS’ limitations in providing technocratic solutions to the problems of regional inequality, as well as the controversies of studying inequality.

Soon after taking over as head of the organization he told the institute’s research committee: “the problem of industrial placements are not just ones that can help solve economic problems of the population’s employment, or the use of labor resources, but many social problems as well.”⁴² Yet he found Soviet scholars woefully unprepared for this task. He complained to the head of personnel at GOSPLAN that neither Soviet economists nor economic geographers were properly trained to carry out the work that SOPS was being asked to do. One way to solve this issue, as we saw, was by collaborating with hundreds of institutes across the USSR. But even then, Nekrasov complained, one had to rely on people who learned about industrial placement on the job. SOPS was effectively forced to train its own specialists through its’ in-house graduate program. Nekrasov was particularly critical about the USSR’s Economic Geographers, who he felt lacked technical skills and were mostly suited for teaching high school. One way to overcome this deficiency was to change the training of economists and economic geographers, a request Nekrasov wanted passed on to the Ministry of Education. Another was to found a new field entirely.

In the 1970s Nekrasov set about writing an introduction to a new field he called “Regional Economics,” which he claimed was distinct from Economic Geography as well as from Economics. The idea of a new field had been discussed

⁴² RGAE, F. 399, op. 1, d. 1068.

within SOPS at least as far back as 1972.⁴³ Nekrasov's monograph came out in 1976, with a second edition following in 1978. While not a detailed handbook, it set out the parameters of his proposed new field, which Nekrasov argued could help systematically even out standards of living, account for cultural differences among the USSR's various nationalities, regulate the distribution of people across the USSR, and provide the scientific basis for plans to protect natural resources and the environment.⁴⁴

One of the more innovative (and ultimately, more controversial) aspects of the book was the use of term "region" (регион) alongside that of "district" (район). The "raion" in Soviet planning was a space delineated by planners; the problem was that the activities of people within that space, or the region's ecology, did not always correspond to what planners had in mind when they first marked out a raion (raion could also denote an administrative district, but this is not the way that spatial planners used the term). The term "region" allowed Nekrasov and SOPS to think about the USSR as consisting of overlapping spaces of various scales, from three "macroregions" (the European part of the USSR, the Caucasus and Central Asia, and Siberia) to microregions within republics.⁴⁵ Only by understanding space in a way that preceded the plan could SOPS hope to improve territorial planning.

Nekrasov's book was warmly received in Kazakhstan and Tajikistan, where Nekrasov's republic-level counterparts organized roundtables to discuss the book.⁴⁶ It also received a positive response from specialists organized by the leading Soviet party journal, *Kommunist*, where the economist and academician Anatoly Rumiantsev hailed the emergence of a new science⁴⁷ (Rumiantsev, it should be noted, had helped found the Institute of Concrete Sociological Research, and thus did much to promote the rebirth of sociology in the Soviet Union. The institute was reorganized when party authorities found its orientation to be too "liberal"). *Kommunist* also published an overview of letters from specialists across the USSR, almost all of them positive. The journal's readers hailed

43 O. A. Konstantinov, "Economic Geography and Regional Economics," *Soviet Geography* 17, no. 1 (1976): 28–37.

44 Nikolai Nekrasov, *Regional'naia Ekonomika: Teoriia, Problem, Metody* (Moscow: Ekonomika, 1965), 32.

45 Nekrasov, *Regional'naia Ekonomika*, 34–35. For more on the overlapping terminologies used by Soviet planners: Denis J. B. Shaw "Regional Planning in the USSR," *Soviet Geography* 27, no. 7 (1986): 469–484.

46 M. Ismailova, "Regional'naia Ekonomika i Ee Problemy," *Izvestiia Akademii Nauk Tadzhikskoi SSR* 1 (1976): 95–99.

47 A. Rumiantsev, "Vazhnoe Napravlenie v Ekonomicheskikh Issledovaniiaakh," *Kommunist* 1 (1976): 48–52.

the emergence of a new field, and especially its promises for applying mathematical models and systems analysis to the problem of regional development.⁴⁸

Yet not everyone was happy with this new terminology, which Nekrasov had begun using even before writing the textbook. V. F. Pavlenko, who was the head of territorial planning within GOSPLAN at the time, rejected the use of the term “region” as simply introducing confusion and creating a superficial similarity between regional planning in capitalist countries and territorial planning in the USSR.⁴⁹ But the appearance of *Regional Economics* inspired nothing less than a campaign against Nekrasov from some of the country’s leading Economic Geographers, led by A. N. Lavrishev, a Professor at the All-Soviet Distance-learning Financial and Economic Institute (VZFEI).⁵⁰ At a three day conference organized at Lavrishev’s institute, economic geographers from around the USSR gathered to attack Nekrasov’s book and his approach to studying regional issues.⁵¹ One delegate from Leningrad found the very term “region” to have a “dangerous meaning.”⁵² In a follow-up letter to the Central Committee of the CPSU, Lavrishev, himself the author of a textbook on Economic Geography, accused Nekrasov of many sins, among them that Nekrasov was trying to claim the founding of a new discipline when he was just cannibalizing the work of Economic Geographers.

The letter, whose signatories also included two of Nekrasov’s subordinates from SOPS, raised more substantive points that were clearly intended to get the attention of senior party functionaries. One was that in using terms like “regional science” Nekrasov was copying bourgeois scholarship. Nekrasov was accused of being influenced by bourgeois economists, and in particular Walter Isard, whose textbook *Methods of Regional Analysis: an Introduction to Regional*

48 L. Golovanov, “Vazhnoe Napravlenie v Ekonomicheskikh Issledovaniakh: Obzor Pisem,” *Kommunist* 10 (1976): 60–64.

49 V. F. Pavlenko, *Territorial’noe Planirovanie v SSSR* (Moscow: Ekonomika, 1975), 45–47. By contrast, demographers seemed to be more comfortable not only using the term “region” but also introducing other terms like “macrozones,” analogous to Nekrasov’s macro-regions. B. S. Khorov, *Razmeschenie Naselenie v SSSR* (Moscow: Mysl’, 1986).

50 Lavrishev largely echoes criticisms published in the form of a “letter to the editor” that appeared in *Planovoe khoziastvo* and signed by several economists and economic-geographers. See V. Vasiutin et al., “Pis’mo v Redaktstsiu,” *Planovoe Khoziastvo* 3 (1977): 156–158. But Lavrishev goes farther by criticizing not just the book but also Nekrasov’s career and management of SOPS.

51 ARAN F. 1825, op. 1, d. 39.

52 ARAN F. 1825, op. 1, d. 39, 9.

Science was translated into Russian and published in the USSR in 1966.⁵³ A second charge was that Nekrasov's interest in inequality would provide the "economic foundations" for "localism" and "bourgeois nationalism" and "contradicts the further coming together of socialist nations." Nekrasov was mistaken to point out that the USSR had "economically poorly developed districts," Lavrishev continued,⁵⁴ since "every economic geographer and economist knows that in our country there are no poorly developed districts or agricultural districts. Every large economic district is a developed industrial-agricultural district."⁵⁵ Finally, Lavrishev attacked Nekrasov's record as head of SOPS. For all of its 600 employees and 560 partner organizations, Lavrishev claimed the council repeatedly failed to produce analyses that would resolve the issues that confronted Soviet planners: new cities with inadequate transportation, new factories without sufficient housing, and so on.⁵⁶

Lavrishev certainly had a point, in so far as these problems bedeviled Soviet planning until the end, as did the issue of inequality. Yet this was hardly the fault of Nekrasov, or of SOPS. Rather, there were two issues that are in themselves quite revealing about the Soviet planning system and its limitations. The first, as we have seen, was that the increasing complexity that SOPS uncovered in its research was difficult to translate into planning documentation. How, exactly, did one incorporate "national" traditions into a planning document? Or all of the informal economic activity that SOPS researchers knew was going on, but couldn't quantify? The second was that planning was never a simply technocratic process, with policy made on the basis of research and information, but a result of lobbying and negotiation. Such lobbying undermined the efforts of SOPS to take ecology or human needs into account in planning recommenda-

53 Walter Isard, *Methods of Regional Analysis: An Introduction to Regional Science* (Cambridge, Mass.: Technology Press of the Massachusetts Institute of Technology, 1960); У. Изард, *Методы регионального анализа: введение в науку о регионах* (Москва: Прогресс, 1966). The Russian edition included a generally positive assessment from the economic geographer A. E. Probst, who stated that Isard's techniques, including his application of input-output analysis, would be of use to Soviet planners, provided they broadened out the range of indicators. Lavrishev ignores this assessment, as well as the fact that Isard was a student of Soviet émigré Vassily Leontieff and subsequently worked with the Polish socialist economist Oskar Lange. Whether Nekrasov was really inspired by Isard, or whether Isard's terminology simply proved useful for articulating something Nekrasov was trying to do anyway, is impossible to say. See also David Boyce, "A Short History of the Field of Regional Science," *Papers in Regional Science* 83, no. 1 (2004): 31–57.

54 Nekrasov, *Regional'naia Ekonomika*, 129.

55 ARAN, F. 1849, op. 1, d. 269, 124.

56 ARAN, F. 1849, op. 1, d. 269, 125.

tions, or even override calculations about the economic rationality behind a given project. This was a frequent complaint not only of Nekrasov but of his counterparts in other institutions.⁵⁷ Aleksandr Granberg, who eventually succeeded Nekrasov as head of SOPS, wrote that the power of different lobbies was a “shared misfortune of all regionalists.” Many recommendations about complex development, placement of industry, or inter-regional ties faced resistance from “ministries and agencies that had enormous power, and sometimes, ambitious local managers.”⁵⁸

On their own, Lavrishev’s complaints did little harm to Nekrasov.⁵⁹ Asked to evaluate the complaints of the letter writers, the head of the republic-level SOPS’ in Ukraine, A.N. Alimov, rejected their arguments point by point.⁶⁰ More problematic for Nekrasov was the criticism from colleagues in GOSPLAN, especially the head of the sector for territorial planning, V.F. Pavlenko.⁶¹ Pavlenko had criticized some of SOPS work in public, but apparently was leading a full blown campaign against Nekrasov and SOPS behind the scenes, writing letters to the Central Committee and to the head of GOSPLAN.⁶² Nekrasov was under pressure to retire, and urged A.N. Kosygin, the Chairman of the Council of Ministers, to move SOPS back to the Academy, lest the organization end up liquidated under pressure from Pavlenko and others.⁶³ In the end, Nekrasov left his post at SOPS, heading up a new Committee on the Study of Productive Forces and

57 See the complaints of Fedorenko about Ukrainian politicians securing funding for a chemical plant despite warnings from SOPS that such a plant would be harmful ecologically and not justifiable economically, at a discussion of the general scheme up to 1980. RGAE, F. 399, op. 1, d. 1702.

58 Granberg, “Izuchenie,” 582–583. See also A. Adamesku and V. Kistanov, “Razmeschenie Proizvoditel’nykh Sil i Eazvitie Narodnogo Khoziastvo,” *Planovoe Khoziastvo* 6 (1990): 109–114. See also Nooa Nykänen, “Competing Institutional Logics in Soviet Industrial Location Policy,” *Eurasian Geography and Economics* 59, no. 3–4 (2018): 314–339.

59 Lavrishev had requested that *Kommunist* publish an article containing his critiques of Nekrasov. In 1979 *Kommunist* did publish an article by Lavrishev defending Economic Geography, but it did not mention Nekrasov or Nekrasov’s book. It did, however, include a broadside against input-output analysis. A. Lavrishchev, “O Predmete Ekonomicheskoi Geografii SSSR,” *Kommunist* 15 (1979): 91–99.

60 ARAN, F. 1849, op. 1, d. 269, 130–138.

61 It should be noted that Pavlenko, like Lavrishev, was the author of a textbook on regional planning. See fn. 40 above.

62 Nekrasov’s letter to A. Ia. Pel’she, head of the Party Control Commission, ARAN, F. 1825, op 1, d. 48. Pavlenko is named as one of the people raising criticism of SOPS’ work in: V. F. Pavlenko, “V Gosplane SSSR,” *Planovoe Khoziastvo* 4 (1977): 156–157.

63 Nekrasov’s letter to Kosygin, ARAN, F. 1825, op. 1, d. 49.

Natural Resources within the Academy of Sciences, where he remained until his death in 1984.⁶⁴

The letters and articles in praise of Nekrasov's book also underlined, perhaps inadvertently, some of the methodological difficulties faced by regional planning. Regional economics promised to go beyond economic geography as it existed in the Soviet Union by utilizing mathematical models for regional planning, and thus addressing questions of individual behavior, mobility, and consumption patterns that affected the viability of a given project or long-term plan. But these models needed data about people's real incomes, needs, desires, and abilities. The textbook said little about how the new field would get this data, but research on these questions within SOPS continued to expand, and ultimately showed the limits of what Soviet social science could accomplish in the service of planning.

The Limits of Measurement

The kind of research Nekrasov promoted continued without him. In fact, SOPS and its partners deepened their analysis, trying to incorporate insights from field studies and observable reality into their analysis and recommendations. The research undertaken by SOPS and its partners reflected state priorities, but by making visible the gap between claims and ambitions on the one hand and apparent reality on the other they also forced state leaders to reformulate their claims. What had started as a way to provide better data for models ultimately ended up showing the limitations of those models and ultimately of Soviet planning.

The relationship between claims and measures was dialectic. SOPS' research revealed regional inequality and was encouraged to further its research by GOSPLAN and other organizations.⁶⁵ By the early 1980s, Soviet economists had iden-

⁶⁴ Aleksey Chichkin, a former SOPS employee, believes that Nekrasov's ouster had to do with his opposition to the policy of exporting natural gas instead of developing a more balanced economy, as well as his support for local decision-making, which Soviet officials thought too reminiscent of the Yugoslav model. Unfortunately, Chichkin provides no evidence for this. Aleksey Chichkin, "Ekonomisty Milost'iu Bozhey: Nikolay Nekrasov," *File-Rf*, May 15, 2014, accessed October 15, 2020, <http://file-rf.ru/analitics/580>; Aleksey Chichkin, "Vo Izbezhanie 'Odnobokosti' Ekonomiki," *RitmEurasia*, April 12, 2015, accessed October 15, 2020, <https://www.ritm Eurasia.org/news-2015-04-12-vo-izbezhanie-odnobokosti-ekonomiki-vspominaja-akademika-nekrasova-17496>.

⁶⁵ Pavlenko, "V Gosplane SSSR," 156–157.

tified over a hundred indicators that they could use to evaluate the level of socioeconomic development of cities and other territorial units.⁶⁶ Soviet leaders were now talking not just about “standards of living” but also “level of socialist civilization.” At the twenty-sixth CPSU congress in 1982, the party resolved to pay particular attention to “evening out social differences on a territorial level.”⁶⁷ Commenting on CPSU General Secretary Yuri Andropov’s statement at the June 1983 plenum that the concept of living standards could not be reduced to salaries, a member of SOPS’ research council commented that “In working on economic issues we have not been paying enough attention to social problems. Our work needs to permeated with the investigation of living standards. That’s up to all of SOPS [...] and we have to agree what we mean by ‘standard of living.’ In essence this is about the quality of life [...]”⁶⁸ Again, the idea of “socialist civilization” was not new – what was new in this era was the commitment to quantifying this concept, and the way quantification helped drive redefinition of the concept.

The drive to get closer to on the ground developments was most clearly evident in SOPS’ approach to Central Asia. As SOPS researcher Margarita Mazanova pointed out at a meeting on methodology, “One of the most difficult problems is the paradox of Central Asia, where everything is bad with housing, and income, and so on, but people seem to be rushing to live there. We need to find the key to solving this problem.”⁶⁹ Mazanova was speaking tongue-in-cheek; in fact, people were no longer flocking to Central Asia; the major industrial projects that had drawn a large European population in the 1960s were nearing completion, and the non-Central Asian population was actually declining from the 1970s.⁷⁰ But the local population was still booming and showing little interest in moving around the USSR or even within the republics.

The “puzzle” was why people refused to move, and the effort to make sense of that problem drove some of the more intense methodological discussions within the organization as it tried to identify what “living standards” meant and how the state could go about raising them. As SOPS researcher Sergey Khvatonov noted in 1978, “The living standards of a population is a multi-dimensional category, which excludes the possibility of expressing it in one synthetic indica-

66 O. Nekrasov, V. Rutgayzer, and N. Kovaleva, “Territorial’noe Planirovanie Sotsial’nogo Razvitiie,” *Voprosy Ekonomiki* 5 (1982): 24–34.

67 Nekrasov, “Territorial’noe,” 24.

68 RGAE, F. 399, op. 1, d. 2054.

69 RGAE, F. 399, op. 1, d. 2054.

70 Sebastien Peyrouse, “The Russian Minority in Central Asia: Migration, Politics, and Language,” *Woodrow Wilson International Center for Scholars Working Paper* 297 (2008).

tor.”⁷¹ To make sense of this, researchers tried to supplement statistics gathered from organizations with household surveys. Such surveys had been used since the 1950s to study the way families used their time and income, and, importantly, to predict consumer needs.⁷² Crucially, the surveys tried to measure not just incomes and prices, but also distance from stores and time spent getting consumer goods. Yet as the economist A. Levin pointed out in a 1974 article in *Voprosy Ekonomiki*, even these surveys had a number of problems: first, they were conducted by sector of employment for the head of household, they did a poor job of capturing regional differences; many parts of the USSR were not surveyed at all.⁷³ Second, they usually failed to capture how much rural residents received in income or in kind from their personal plots.⁷⁴ Third, they were difficult to compare with food prices outside of the state sector, because markets (where peasants could sell produce from their own plots and set prices) were very poorly surveyed.⁷⁵ Levin advocated a number of methodological changes to surveys and data gathering more generally, which included comparing residents not just by social class (workers and peasants) but also according to whether they were rural or urban, and carrying out budget surveys that were more representative of the demographic distribution of the USSR.⁷⁶

In fact, by the early 1970s the kind of complex methodology advocated by Levin was being developed by Tatiana Zaslavskaya and her team at the Novosibirsk branch of the Academy of Sciences for their study of villages in western Siberia.⁷⁷ By the end of the decade these recommendations seem to have been adopted by SOPS as it continued its study of living standards across the USSR. Scholarship that compared population growth to formal employment opportunities found a large and growing number of “unemployed” in Central Asia; many studies treated all such people as dependents of wage earners.⁷⁸ Closer observation revealed that many of these people were engaged in some combination of seasonal labor on collective farms, work on personal agricultural plots, or

71 RGAE, F. 399, op. 3 d. 1534, 19.

72 See, for example, Kristy Ironside, *A Full Value Ruble: The Promise of Prosperity in the Soviet Union* (Cambridge, Mass.: Harvard University Press, 2021), 54–88.

73 A. Levin, “Izucheniia Sprosa Naseleniia i Problem Informatsii,” *Voprosy Ekonomiki* 8 (1974): 34–45, 35, 39.

74 Levin, “Izucheniia,” 43.

75 According to Levin, surveys of markets captured only 20% of markets in the USSR, and primarily in large cities at that. Levin, “Izucheniia,” 40.

76 Levin, “Izucheniia,” 44–45.

77 T. I. Zaslavskaya, “K Metodologii Sistemnogo Izucheniia Derevni,” *Sotsiologicheskie Issledovaniia* 3 (1975): 31–44.

78 For example, RGAE, F. 399, op. 3, d. 1534, 10–11.

other kinds of activity oriented around the home. A report completed by the Research Institute of Labor (NII Truda) in 1979 noted that 19.4% of Central Asians were involved in “personal labor,” double the Union average, while the number engaged in home or own-plot labor had grown by 795,000 between 1971 and 1977.⁷⁹ Crucially, income from these activities was notoriously hard to track.

In trying to evaluate living standards within Central Asia, Khvatov and his team compared cross-sections of income (including salaries and welfare payments), the structure and volume of consumption, and the level of development of social infrastructure.⁸⁰ Khvatov noted that per capita income was lowest in the Central Asian republics, but if you compared families rather than individuals the picture was different. Turkmenistan moved to the top of the rankings from near the bottom and Uzbekistan’s collective farmers from twelfth to fourth place.⁸¹ In other words, large families had multiple earners; if they pooled their resources the extended family was much better off than the nuclear family. Moreover, Khvatov found that rural Central Asians tended to combine income from the collective farm with other forms of income much more than others in the USSR. That combined income was 179.7% of the union average for Tajikistan, 161.8% for Uzbekistan, and 233.5% for Turkmenistan. Such economic analysis certainly helped shed light on why people preferred to stay in large extended families in the countryside rather than move to the city. According to these calculations, rural Central Asians were less well off than urban Russians, but they were better off than urban, working class Central Asians and not so far behind the better off peasants elsewhere in the USSR. But these studies led to further questions. For example, income from personal plots appeared to be among the lowest in the USSR, as did size of land plots.⁸² Other studies noted that that poorer families relied on personal plots for up to 90% of their income in Tajikistan, but richer families much less so.⁸³ Yet rather than pushing people to seek employment in the state sector, or move to cities, lack of land seemed to reinforce the tendency to stay put.

These studies helped uncover economic rationales for immobility that sociological and ethnographic research at the time attributed primarily to cultural factors. Still, such studies – carried out in cooperation with local institutes – could not account for informal or semi-formal activity – what Sovietologists called the

⁷⁹ GARF, f. 9595, op. 1, d. 635, 122.

⁸⁰ RGAE, f. 399, op. 3, d. 1534, 19.

⁸¹ RGAE, f. 399, op. 3, d. 1534, 21.

⁸² RGAE, f. 399, op. 3, d. 1534.

⁸³ RGAE, f. 399, op. 3, d. 1498, 40441.

“second economy.”⁸⁴ For example, personal plots in Central Asia were often used for fruits, including citrus fruits, that took up less space than potatoes or vegetables but were in high demand throughout the USSR. By the 1970s informal middlemen brought such fruits to markets as far away as Moscow and Leningrad.⁸⁵ Income from such sales were hard to track. Even the timing of surveys could significantly affect outcomes, since growing seasons varied enormously across the USSR. With growing seasons generally longer, some farmers even managed to use collective farm lands to plant their own crops after the main cash crop had been harvested.⁸⁶

Similarly, planners knew that many individuals, especially women, were involved in producing handicrafts (including clothing and bedsheets) that they sold through the market or informal channels. But understanding the importance of such activity to the household budget was difficult, since people were rarely honest about such income even in household surveys. As a result, studies attempting to determine standards of living seemed to show that life in Central Asian cities was better, as (formal) urban employment provided a higher income than (formal) employment in rural areas.⁸⁷ Yet on the ground observations seemed to undermine these findings.⁸⁸ As D. I. Ziuzin, a senior researcher at the Research Institute on Labor, pointed out at a meeting organized by SOPS, his “visual observation” during a tour of the region suggested that quality of

84 The term comes from Gregory Grossman, “The Second Economy of the USSR,” *Problems of Communism* 26, no. 5 (1977): 25–40. Soviet officials did not study the second economy, leaving its control to law enforcement. See Vladimir Treml and Mikhail Alexeev, “The Second Economy and the Destabilizing Effect of its Growth on the State Economy of the Soviet Union, 1965–1989,” *Berkeley-Duke Occasional Papers on the Second Economy of the USSR* 36, no. 6–9 (1993) on the methodological problems of estimating activities in the second economy, even with access to archival data. See also Nancy Lubin, *Labour and Nationality in Soviet Central Asia* (London: Macmillan, 1984).

85 Jeff Sahadeo, *Voices from the Soviet Edge Southern Migrants in Leningrad in Moscow* (Ithaca: Cornell University Press, 2019); Beate Giehler, “Maksim Gorki and the Islamic Revolution in the Southern Tajik Cotton Plain: The Failure of Soviet Integration in the Countryside,” in *Allah’s Kol-khozes: Migration, de-Stalinization, Privatization and the New Muslim Congregations in the Soviet Realm (1950s-2000s)*, ed. St. Dudoignon and Ch. Noack (Berlin: Klaus Schwarz Verlag, 2014), 123–147.

86 One study that found lower income from personal plots among Central Asians noted that carrying out the survey in September inevitably led to underestimating the income of Central Asian families, since the survey would not have actually captured the results of the harvest. RGAE, F. 399, op. 3, d. 1498, 18.

87 For example, RGAE, F. 399, op. 3, d. 1534, 17–18.

88 See, for example, another part of the report cited above, which notes the generally higher standard of living; GARF, F. 9595, op. 1, d. 635, 313.

life in the rural regions of Central Asia was better, because people benefited from their personal plots and other income that was not registered in official statistics. Life in the countryside also entailed a return to “patriarchal traditions,” he went on, but again, he didn’t have statistics to back this up, “because such research cannot be signified in numbers.” Still, he said “our observations are important for drawing certain conclusions.”⁸⁹

Ziuzin’s comments reflected a point made by other Soviet academics and planners, sometimes almost casually, that what kept Central Asians in the villages was “tradition,” or, in common Soviet parlance, “survivals of the past.” The economist and academician Tigran Khachaturov explained at a meeting in 1969 that Central Asia needed special attention because there “they have not rid themselves of the remnants of Sharia, or of pre-capitalist relations, and where there are still particular [...] relations of production.”⁹⁰ Khachaturov used a vague understanding of religious tradition to explain behavior that did not fit economic models. Sociological studies conducted by local scholars over the course of the 1970s had helped bring nuance to these concepts, asking concrete questions about people’s preferences for family size, location, and profession. Ziuzin similarly argued against uncritically using concepts like “tradition [...] as if tradition was not supported by the social-economic conditions of life. The larger the family, the wealthier, and parents have no reason to let children leave.”⁹¹ The studies done by Khvatov and his colleagues at SOPS partially demystified what was particular about Central Asia. Although they missed much informal activity, they showed that there were concrete economic reasons for people to maintain extended families, ones actually reinforced by the political economy of the Soviet countryside. Khachaturov suggested that the problem was not with the model but with the people, who were an exception to the rule; research done by SOPS and its partners suggested the model itself might fail to account for the diversity of economic behavior within the USSR.

By the early 1980s, such research had begun to transform Moscow’s approach to welfare and placement in the region. Gradually, Soviet planning organs became more supportive of distributing industrial plants through rural areas, so that rural residents could be engaged in industrial labor without moving to large cities. Detailed studies of time use and amenities in different locations contributed to the push for developing “social infrastructure” in rural

⁸⁹ RGAE, F. 399, op. 1 d. 1989, 76, 78.

⁹⁰ RGAE, F. 399, op. 1, d. 1702.

⁹¹ RGAE, F. 399, op. 1, d. 1989.

areas.⁹² Recognizing that women could and did contribute to the family budget while working from home, planners began to encourage the use of cottage labor, pushing factories to engage women with large families to produce piece-work at home.⁹³ But it took Mikhail Gorbachev's reforms under *perestroika* for more radical changes to take place. In the latter half of the 1980s, Moscow began to encourage not just cottage labor but individual labor, family sub-contracting on the farm, and the further expansion of private plots. The rationale for many of these changes had been built up over many years through the research done by SOPS and its partners. But that research also helped demonstrate the limits of measurement and planning. Even the most detailed studies left planners unable to make sense in a concrete way of a range of activities. It was not until the last year of the USSR's existence that planning was abandoned in favor of a transition to a market economy; but even before that point planners were pulling back from areas that research showed were beyond their capacity to manage effectively. More generally, such research – showing as it did the difficulty of planning and managing a country as diverse as the USSR – contributed to the call for greater economic autonomy within the USSR, as well as for regional integration.⁹⁴

Finally, though there is little space to discuss these issues in detail, the research into regional inequality carried out by SOPS and its partner institutions inadvertently contributed to the more strident critiques of the USSR that emerged in the late 1980s. While work on inequality had not been top secret in previous years, most publications on these issues were confined to specialist journals and rarely included detailed numbers. After 1985, with the policy of *glasnost* (openness), the press began to feature these questions much more prominently, drawing on research produced by specialists. Intended to further the course of reform, such research also provided a source base for activists arguing for greater local control, and, eventually, independence. In a sense, Lavrishev's claim that *Regional Economics* would lead to nationalism was proved correct.

92 S. Kasimov, "Nekotorye Regional'nye Aspekty Uskoreniia Sotsial'noi Infrastruktury," *Obshchestvenyi Nauki Uzbekistana* 12 (1976): 10–15.

93 GARF, F. 9593, op. 1, d. 4143.

94 Adamesku and Kistanov, "Razmeschenie Proizvoditel'nykh Sil i Razvitie Narodnogo Khoziaystvo"; Sh. Mirsaidov, "Sotsial'no-ekonomicheskoe Razvitie Soiuznoy Respubliki v Sovremennykh Usloviakh," *Planovoe Khoziaystvo* 1 (1990): 1–15; K. N. Bedrintsev, "Regional'nye Problemy Razvitiia Ekonomiki UzSSR v Nadrodokhoziaystvennom Komplekse Sredney Azii," *Obshchestvennye Nauki Uzbekistana* 3 (1987): 5–14.

Conclusion

Walter Isard, the American regional economist whose textbook had been translated in the USSR and inspired a generation of specialists, made a distinction between material and non-material factors of regional development. The latter included solidarity, security, respect for individuals, and so on. While the latter could not be quantified, Isard argued that they had to be taken into account for any serious consideration of development and total welfare: “in doing so, we include in resources not only the coal, air, personal labor, accumulated machinery, factory buildings, and other goods that we possess, but also the spiritual and other nonmaterial goods that we have at our command. That is, we include our total culture.”⁹⁵ Isard was writing at a time when social scientists around the world were trying to expand what “counted” in economic analysis to move beyond growth and include broader measures of well-being, as well as economic activity that could not be easily captured in official statistics.⁹⁶ As we have seen, Soviet planners and social scientists wrestled with similar problems. Even as their understanding of the material aspects of social welfare expanded, they were also forced to confront the importance of factors, both material and intangible that they could not easily capture.

A decade after Nekrasov was forced out of his position at SOPS, the term “region” gained much wider use. Whereas Nekrasov had used the term to think simultaneously at different scales, in the late Soviet era the term often appeared to cement the idea of the Union divided into three large regions with very different problems and prospects. A report prepared by SOPS in 1989 spoke of Central Asia and Kazakhstan as one “region” with shared characteristics, but also urged that moving forward republics formulate their own internal “regional” plans for social and economic development, rather than relying on central organs.⁹⁷ In a 1990 article in the journal *Planovoe Khoziaistvo* two demographers, Aleksandr Avdeev and Irina Troitskaia, spoke of a Central Asian “region” characterized by high birth rates, ecological problems, rising nationalism, and growing unemployment and poverty, which would eventually lead to large-scale migra-

⁹⁵ Dellenbrant, *Soviet Regional Dilemma*, 21; Walter Isard, *Introduction to Regional Science* (Englewood Cliffs: Prentice Hall, 1975), 377.

⁹⁶ Douglas Rimmer, *Measuring Social Well-Being: A Progress Report on the Development of Social Indicators* (Paris: OECD, 1976).

⁹⁷ RGAE, F. 399, op. 1, d. 2217.

tion to the European region, characterized by high levels of industrialization but low birth rates.⁹⁸

Such reports and publications also reflected a sense that territorial economic and social planning had remained one of the weak points of the Soviet planning system. As we have seen, this was not for lack of attention: the Council on Productive Forces was a massive organization, its tentacles extending seemingly to every corner of the USSR, and providing detailed information to planners. Over the course of the 1960s, 1970s, and 1980s, it stimulated new research and helped refine techniques for understanding how people lived and what they wanted. And it made visible inequality across the USSR, forcing policymakers to confront the issue. But it also contributed to a vision of the union as firmly divided between a modern, developed, “north,” and a “south” that seemed to be perpetually a source of problems; instead of a union of equally developed regions and peoples united by a common task, the USSR had become, as Avdeev and Troitskaya put, a “scale model of the contemporary world.”⁹⁹

⁹⁸ A. Avdeev and I. Troitskaia, “Demograficheskiy Aspekt Razvitiia Ekonomiki Na Rubezhe 21 Veka,” *Planovoe Khoziastvo*, no. 12 (1990): 87–92.

⁹⁹ Avdeev and Troitskaia, “Demograficheskiy,” 87.

