Minimum Wage and Occupational Dynamics in Russia

Evidence from RLMS 1994-2024

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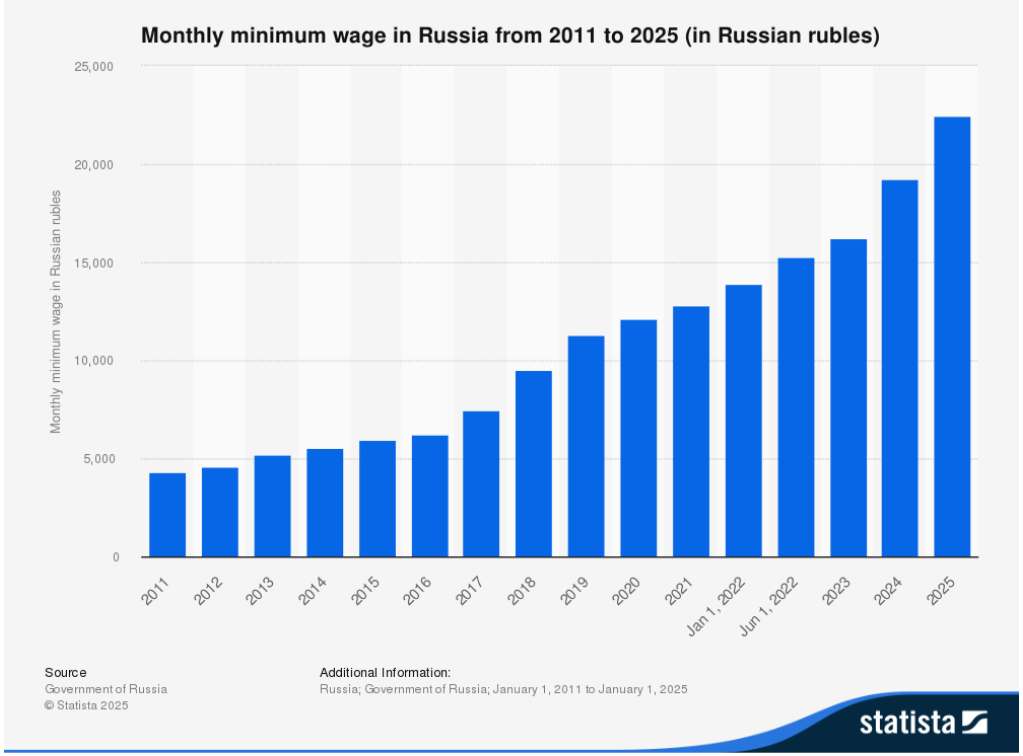
The minimum wage is a government-mandated wage floor designed to protect workers from excessively low pay.



In Russia, minimum wage serves as a key labor policy instrument aimed at:

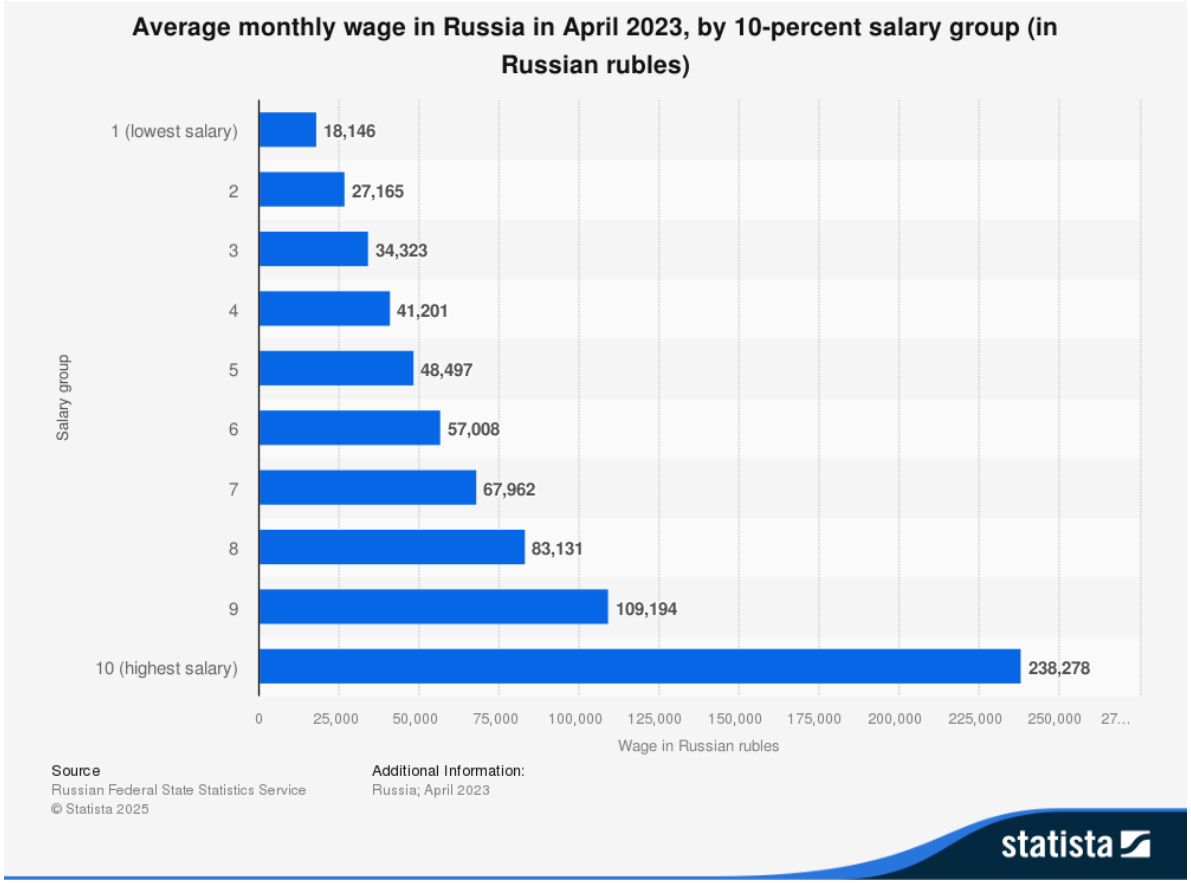
- Ensuring basic income security
- Preventing in-work poverty
- Shaping employment conditions across sectors and regions

Beyond social protection, minimum wage policy can influence:

- Employers' hiring and task allocation decisions
- Workers' occupational choices and sectoral mobility
- The distribution of employment across occupations

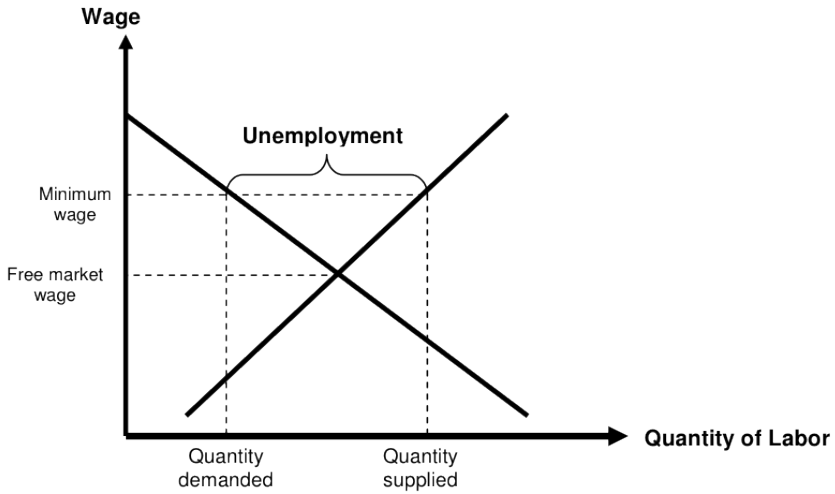
Average Monthly Wages by Salary Group

Distribution of Earnings in Russia



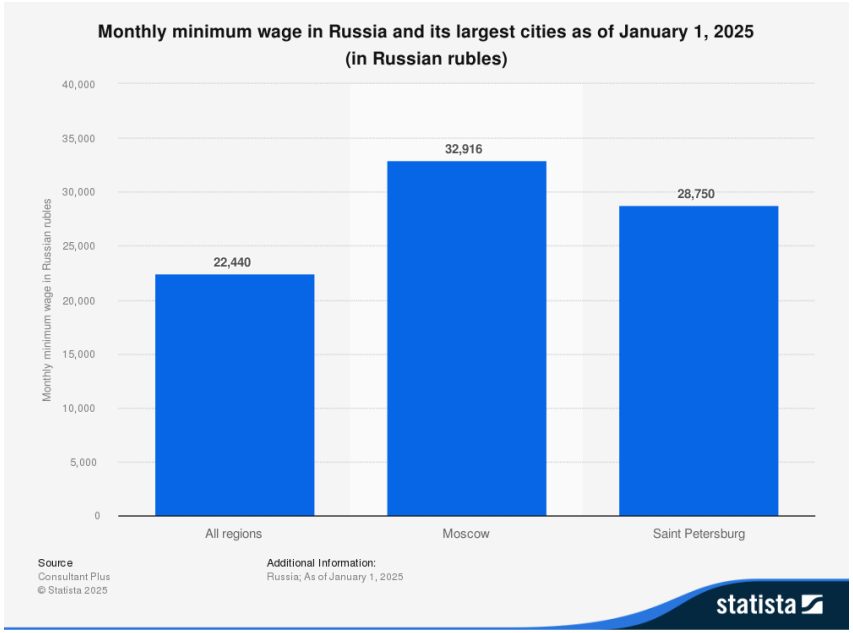
Minimum wage policy has long been debated in economic theory.

- Classical models predicted negative employment effects
- Since the 1990s, empirical research shows heterogeneous outcomes
- Recent studies emphasize institutions and market structure



Classical Economics View of Minimum Wage

- Minimum wages are implemented at the regional level



- Regions differ in economic structure and composition
- Formal and informal employment coexist
- Major reforms: 2005, 2007, 2009, 2016-2018

International Evidence:

- Card & Krueger (1994): Small employment effects in US
- Neumark & Wascher (2007): Negative effects in some contexts
- Autor et al. (2016): Task-based vulnerability to labor shocks

Russian Studies:

- Lukiyanova (2010): MW compressed wage inequality
- Gimpelson & Kapeliushnikov (2011): Weak labor institutions
- Regional MW studies limited to wage effects

Gap: No occupation-level analysis in Russian context

Research Gap and Contribution

Why This Study Matters

Research Gaps:

- Limited evidence on occupational-level effects
- Understudied regional heterogeneity
- Few studies connect MW with occupational mobility

Original Contribution:

- **Pioneers** occupation-level analysis of MW effects in Russia's transition economy
- **Leverages** regional natural experiment for causal identification
- **Integrates** task-based approaches with institutional analysis
- **Delivers** policy-relevant evidence for targeted regional interventions

Research Questions

Primary Focus

Main Question: How do minimum wage changes affect occupational structure across Russian regions?

Theoretical Motivation: MW may cause occupational substitution, upgrading, or regional sorting

Specific Questions:

1. Which occupations cluster at minimum wage thresholds?
2. How do adjustment mechanisms differ by sector?
3. What are the regional patterns of occupational change?

Research Hypotheses

Testable Predictions

H1: Occupational Incidence

- Low-skill service occupations show highest MW concentration
- Concentration patterns differ by region

H2: Adjustment Mechanisms

- Formal firms: Task reorganization
- Informal sector: Non-compliance

H3: Regional Heterogeneity

- High-MW regions: Occupational upgrading
- Border regions: Cross-regional mobility

Theoretical Basis:

- Neoclassical labor demand model
- Task-based occupational approach
- Russian institutional context

Data Source

Russian Longitudinal Monitoring Survey (RLMS)

- Household panel: 1994-2024 (30 years)
- 171,965 household-year observations
- Nationally representative with regional identifiers
- Occupational codes (3-digit OKZ)

Sample Selection:

- Working-age population (18-65)
- Wage and salary workers
- Complete occupation information

Limitations:

- Underrepresents informal sector
- Occupational codes changed over time
- Wage reporting may have measurement error

Key Variables

RLMS Data Structure

Variable	**RLMS Code**
Monthly wage	C4
Occupation	C7_1
Employment status	C1
Sector	C2
Firm type	C3
Formal status	C8
Hours worked	C5
Region	REGION

- Additional controls: Age, gender, education
- Regional economic indicators
- Time dummies for economic cycles

Stage 1: Descriptive Mapping

$$\text{MW Concentration}_{ort} = \frac{Emp_{ort,w \leq MW}}{Emp_{rt,w \leq MW}}$$

Stage 2: Difference-in-Differences

$$Y_{irt} = \beta_0 + \beta_1(\text{Post}_t \times \text{HighMW}_r) + \text{Controls}$$

Stage 3: Border Analysis

$$Y_i = \alpha + \beta \cdot \mathbf{1}\{\text{MW}_r > \text{MW}_{r'}\} + \epsilon_i$$

Identification Strategy:

- Exploit regional MW differences post-2007
- Temporal changes in federal MW
- Interaction of region and time effects

Statistical Approach:

- Regional and year fixed effects
- Clustered standard errors (region-occupation)
- Dynamic event study design

Robustness Checks:

- Alternative wage measures (C4 vs G1_1)
- Different MW bite thresholds (25%, 30%, 35%)
- Placebo tests with false reform dates

Expected Findings

Preliminary Expectations

Based on literature and descriptive patterns:

- 5-8% of workers directly affected by MW (higher in low-wage regions)
- Routine occupations (retail, cleaning) most concentrated at MW
- Public sector shows larger spillover effects due to wage grids
- Border regions show occupational mobility toward lower-MW areas
- Informal employment increases in high-MW regions for affected occupations

Policy implication: Targeted MW adjustments needed by occupation/region

Expected Contributions

Academic Value

- First comprehensive occupation-level analysis for Russia
- Novel evidence on regional heterogeneity in transition economies
- Methodological: Integrating occupational mobility with MW analysis
- Advances understanding of institutional mediation in labor markets

Policy Relevance:

- Evidence for targeted social protection to vulnerable occupations
- Guidelines for optimal regional differentiation of MW policies
- Sector-specific enforcement strategies for labor inspectorates

Research Timeline

5-Month Schedule

Month 1: Preparation

- Literature review completion
- RLMS data cleaning & preparation

Month 2: Descriptive Analysis

- Occupational incidence mapping
- Regional heterogeneity patterns

Month 3: Causal Analysis

- Difference-in-Differences estimation
- Border discontinuity design

Month 4: Writing & Extensions

- Thesis drafting
- Heterogeneity analysis

Month 5: Completion

- Final revisions
- Presentation preparation
- Defense

Conclusion

This study provides first analysis of MW effects on occupational dynamics in Russia.

Key Innovations:

- Occupational-level analysis rather than aggregate effects
- Regional natural experiment (post-2007 differentiation)
- Long-term dynamics (1994-2024)
- Multiple adjustment mechanisms
- Policy-relevant regional focus

Significance: Provides evidence for optimizing Russia's regional MW policy while advancing understanding of occupational adjustment mechanisms in transition economies.

Thank You

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