Using alternative data sources for producing statistics in Kazakhstan

as illustrated by the calculation of per capita nominal income

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Using alternative data sources in the Republic of Kazakhstan

**Current situation**: the following methods are used in Kazakhstan to measure household income:
- Direct method of income measurement
- Indirect method of income measurement

The **direct method** of household income measurement determines the calculation based on the statistical observation of households budgets, the object of which is the incomes and expenditures of household members, their consumption structure, and key living conditions characteristics.

The **indirect method** of measuring household income determines the calculation based on the use of statistical indicators and data from administrative sources.

**Future prospects** – producing household income and expenditure data based on data from tax authorities (mandatory filing of tax returns, information on income, ownership of real estate and vehicles), banking sector reports (card transactions) and monetary statistics (data on household deposits and savings).
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Calculation of income based on the household sample survey of living standards
Data source is the household sample survey - 12,000 a year

• Household income used for consumption. Is used for the objective description of the population’s material wealth level; household income is estimated through expenditure.

This approach is used to eliminate inadequate information on income due to the variety of income sources that do not take into account income from self-employment and "shadow" economic activity and the time gap between the activity and payment for it, as well as the presence of not only monetary income, but also in-kind income in the form of food, other goods and benefits paid to the population.
Calculation of income based on the household sample survey of living standards
Data source is the household sample survey - 12,000 a year

• Monetary household income. Is calculated based on the sample survey of households and includes income from employment and self-employment, social transfers and other income.

The income tracked by household sample surveys includes all monetary and in-kind income in monetary terms received on a regular basis, less tax deductions and mandatory payments.
Main stages of calculating per capita nominal income:

1) calculation of nominal monetary income from hired work;
2) calculation of a recalculation coefficient for concealed wages and salaries;
3) calculation of nominal monetary income from self-employment;
4) calculation of paid current transfers;
5) calculation of other monetary income;
6) calculation of per capita nominal monetary income;
7) calculation of nominal and real monetary income indices.
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<table>
<thead>
<tr>
<th>Alternative estimate</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1) Estimate of per capita nominal monetary income, tenge</strong></td>
<td></td>
<td></td>
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<tr>
<td>Payroll budget of employees</td>
<td>74.5</td>
<td>74.5</td>
<td>75.9</td>
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<tr>
<td>Monetary income from self-employment</td>
<td>11.1</td>
<td>10.0</td>
<td>10.7</td>
</tr>
<tr>
<td>Amount of paid current transfers</td>
<td>13.7</td>
<td>14.1</td>
<td>12.1</td>
</tr>
<tr>
<td>Amount of other monetary income</td>
<td>0.7</td>
<td>1.4</td>
<td>1.2</td>
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<table>
<thead>
<tr>
<th>Based on household sample survey</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2) Monetary income, total</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Income from hired work</td>
<td>61.9</td>
<td>57.9</td>
<td>60.7</td>
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<tr>
<td>Income from self-employment and entrepreneurial activity</td>
<td>10.4</td>
<td>9.1</td>
<td>9.3</td>
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<tr>
<td>Social transfers</td>
<td>23.8</td>
<td>28.6</td>
<td>25.8</td>
</tr>
<tr>
<td>Material assistance from relatives and friends, alimony</td>
<td>2.7</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Other income</td>
<td>1.2</td>
<td>2.0</td>
<td>1.9</td>
</tr>
</tbody>
</table>
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Future prospects according to the Concept of State Statistics and National Data Ecosystem Development:

1) Mandatory filing of tax returns by 2025;
2) Using data from tax authorities and the banking system;
3) Developing register systems and building a population data system based on the population register and updated online (ownership of real estate, vehicles, land, income);
4) Obtaining data on detailed expenditures from fiscal data operators;
5) Replacing part of the data from the living standards sample survey with administrative data.

Thank you for your attention!