**Evaluating input- and output-specific inefficiency in courts of justice. An empirical study of Polish district courts**

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**MATHEMATICAL MODELS**

**MAIN MODEL**

The calculation of input-specific and output-specific technical inefficiencies:

 (1)

Overall inefficiency measures:

 (2)

**ROBUSTNESS MODEL A**

Computation of (1) and (2) with average values of inputs and outputs as directional vectors.

**ROBUSTNESS MODEL B**

Anideal reference point with regard to inputs:

 (3)

Anideal reference point with regard to outputs:

 (4)

Model of which result is utilized to calculate input- and output-specific inefficiencies:

 (5)

Input-specific inefficiency scores:

**** (6)

Output-specific inefficiencies:

 (7)

Overall inefficiency:

 (8)