## **Measuring Need-Based Justice – Empirically and Formally**

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## 1 Introduction<sup>1</sup>

Nullmeier (2020, p. 193) has suggested that a "theory of need-based justice should be based on the promotion of both normative and empirical research". In this chapter, the formal part (Sections 2.1–2.3) introduces measures of need-based justice. Such measures are meant to compute how just distributions of a specific good are based on how well they satisfy the corresponding needs. Their input is, therefore, the individuals' endowments and needs, and their output is a number representing the distribution's degree of need-based justice. Given that need-based justice plays a central role in many theories of justice, and given the enormous number of inequality measures, it is quite surprising that almost no measure of need-based justice has been proposed so far. To close this gap, we suggested three measures resting on varying notions of need-based justice. According to these measures, a distribution is unjust (i) the more it deviates from absolute need satisfaction and equal degrees of need satisfaction, (ii) the more the given undersupply could have been mitigated by transfers, and (iii) the more resources are used for oversupply instead of need satisfaction. Before introducing and comparing our measures in Section 2.2, we have a critical eye on two proposals from the literature in Section 2.1. The comparison of our measures reveals, among other things, that only two of them satisfy need-oriented relatives of axioms that are prominent in poverty measurement.

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