

Priority rule for organ donors could have unintended consequences

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Several countries have combated low organ donor counts by implementing a priority rule that pushes registered donors to the front of the line if they ever need a transplant. However, according to a study from the McCombs School of Business at The University of Texas at Austin published today in *Management Science*, this model has drawbacks.

McCombs accounting professor Ronghuo Zheng, along with Tinglong Dai of Johns Hopkins University and Katia Sycara of Carnegie Mellon University, saw a flaw with the priority rule that others, such as Nobel Prize-winning economist Alvin Roth, have advocated for the United States. Although the program incentivizes more donors and increases the supply of organs, there is the potential risk that the quality of donated organs will decline. Individuals who are more likely to become sick have the highest incentive to donate, because they are most likely to need a transplant in the near future.

"A person might feel pressured to become a [donor](#), even though they don't want to because if they don't register, they might not have the opportunity to get a transplant," Zheng said.

The study, "Jumping the Line, Charitably: Analysis and Remedy of Donor-Priority Rule," examines this problem and proposes a solution of a "freeze period" for each pledge for a specified length of time during which donors are not given priority for a [transplant](#) until the waiting period expires.

"It ensures the organ supply is higher without compromising the quality of the organs," Zheng said.

In the study, researchers created a simulated organ market and placed a

dollar value factor using data from the U.S. Organ Procurement and Transplantation Network. They found that running the model without a freeze period would have a net cost to society of \$76 million a year due to setbacks from having more lower quality organs, while using a three-year freeze period could potentially boost [social welfare](#) by \$235 million a year.

"When used in conjunction with the donor-priority rule, this remedy can ensure social-welfare improvement by expanding the size of the donor registry without reducing the average quality of donated organs or inducing unnecessarily high psychological costs of donating," Zheng said.

More information: Tinglong Dai et al. Jumping the Line, Charitably: Analysis and Remedy of Donor-Priority Rule, *Management Science* (2019). [DOI: 10.1287/mnsc.2018.3266](https://doi.org/10.1287/mnsc.2018.3266)

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