

The Complexity of Bribery in Elections

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Motivation

Election systems are designed to aggregate voters' preferences. But they work as intended only if the voters do not cheat about their preferences!

Hi! I am Mr. Briber. I bribe people in plurality elections to vote for Ms. Manipuletti, a close relative of mine.

Typically, my work is **easy**. Sometimes, if the voters have **weights**, I have to balance bribing the heaviest ones and the supporters of the winner.

In other elections voters might have **prices**, but that's not difficult.

I just hope that voters do not have **weights and prices at the same time**, because that gets **NP-hard!!**

Bribery

Problem: plurality-bribery

Given: Candidate set C , voter set V , candidate p , and budget k

Question: Can we via bribing at most k voters ensure that p wins?

Even though my vote is not the **heaviest** one, Mr Briber still wants to bribe me!

I would have never voted as Briber says!

That is, unless he met my **price!**

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