

Over 13 months in 2016–17 the **US Federal Communications Commission** conducted an “incentive auction” to repurpose radio spectrum from broadcast television to wireless internet. In the end, the auction yielded **\$19.8 billion**, \$10.05 billion of which was paid to 175 broadcasters for voluntarily relinquishing their licenses across 14 UHF channels. Stations that continued broadcasting were assigned potentially new channels to fit as densely as possible into the channels that remained. The government netted more than **\$7 billion** (used to pay down the national debt) after covering costs. A crucial element of the auction design was the construction of a **solver**, dubbed SATFC, **that determined whether sets of stations could be “repacked” in this way; it needed to run every time a station was given a price quote.** This