

- (b) Question about Moore's Law?

Exercise 1.6.47. [U] Free meat!

On July 2, 2017 *The Boston Globe* published an article about bioengineered meat grown from animal stem cells.

Steve Myrick, vice president of business development at Memphis [Meats], said the company is now producing beef, chicken, and duck in stainless steel tanks for roughly \$2,400 per pound. That's a lot cheaper than it was even a year ago, and the price is falling about 15 to 20 percent per month, as the company improves yields and finds less expensive nutrients. [R24]

- (a) Estimate the cost "a year ago".
(b) When will the cost be competitive with what meat sells for in your local market?

Exercise 1.6.48. [U] Payday loans 2017.

On October 5, 2017 *The New York Times* reported that the Consumer Financial Protection Bureau announced new rules applicable to payday loans. The article read (in part)

Currently, a cash-strapped customer might borrow \$400 from a payday lender. The loan would be due two weeks later — plus \$60 in interest and fees. That is the equivalent of an annual interest rate of more than 300 percent, far higher than what banks and credit cards charge for loans.

...

The payday-lending industry is vast. There are now more payday loan stores in the United States than there are McDonald's restaurants. The operators of those stores make around \$46 billion a year in loans, collecting \$7 billion in fees. Some 12 million people, many of whom lack other access to credit, take out the short-term loans each year, researchers estimate. [R25]

- (a) Verify the interest calculation in the first paragraph of the quotation.
(b) Are the assertions in the second paragraph reasonable? The data in Figure 1.13 should help answer this question.

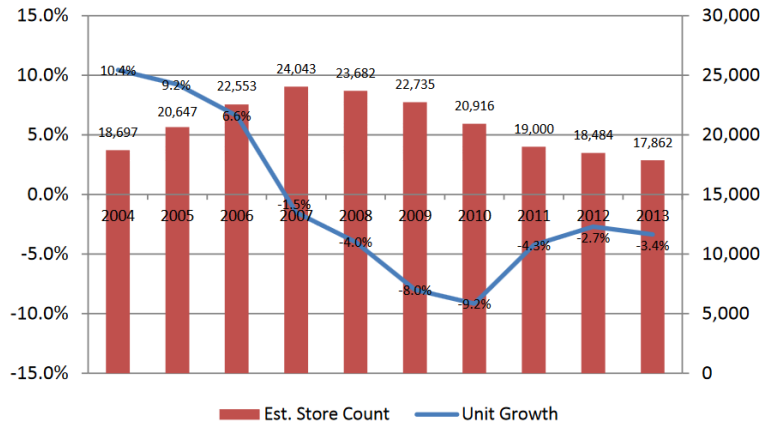


Figure 1.13: Payday Loan Stores 2004-2013 [R26]

- R18 N. Silver, In Cooperstown, a Crowded Waiting Room, *The New York Times* (January 12, 2013), fivethirtyeight.blogs.nytimes.com/2013/01/12/in-cooperstown-a-crowded-waiting-room/ (last visited July 23, 2015).
- R19 J. Powers, London ready to complete Olympic triple play, *The Boston Globe* (July 22, 2012), www.bostonglobe.com/sports/2012/07/22/london-ready-complete-olympic-triple-play/iaAdNViKdg53AyrkHMORwN/story.html (last visited July 23, 2015).
- R20 S. Cowley, Payday Loans' Debt Spiral to Be Curtailed, *The New York Times*, June 2, 2016, www.nytimes.com/2016/06/02/business/dealbook/payday-borrowings-debt-spiral-to-be-curtailed.html (last visited June 2, 2016).
- R21 Was this a good deal on a mortgage?
money.stackexchange.com/questions/66978/was-this-a-good-deal-on-a-mortgage (last visited July 6, 2016).
- R22 T. Friend, Adding a Zero, *The New Yorker*, October 10, 2016, p. 77.
- R23 T. Friend, Silicon Valley's Quest to Live Forever, *The New Yorker*, April 3, 2017, www.newyorker.com/magazine/2017/04/03/silicon-valleys-quest-to-live-forever (last visited April 20, 2017).
- R24 D. Scharfenberg, I'm a vegetarian. Bring on the lab-grown meat, *The Boston Globe*, July 2, 2017, ostonglobe.com/ideas/2017/06/29/vegetarian-bring-lab-grown-meat/M8s2vNYxiYZsusZPM8ff8K/story.html (last visited July 2, 2017).
- R25 S. Cowley, Payday lending faces tough new restrictions by consumer agency, *The New York Times*, October 5, 2017, www.nytimes.com/2017/10/05/business/payday-loans-cfpb.html (last visited October 6, 2017).
- R26 J. Hecht, Alternative Financial Services, February 27, 2014, slide 31, cfsaa.com/Portals/0/cfsa2014_conference/Presentations/CFSA2014_THURSDAY_GeneralSession_JohnHecht_Stephens.pdf (last visited October 5, 2017).