Christmas and the Efficiency of Gift-Exchange

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Christmas and Gift-giving

- The tradition of giving gifts on Christmas day is commonly believed to originate in pre-Christian pagan festivals that were celebrated around the winter solstice, in particular, the Roman festival Saturnalia.

- Saturnalia was a Roman festival in honor of the agricultural god Saturn and was celebrated in carnival atmosphere with heavy drinking and gift-giving.

- The atmosphere of Christmas evolved from raucous, drunken, carnival-like state in the Middle Ages, to family-oriented and children-centered today.

The Christmas Season

- Christmas today is a peak selling season for retailers in many nations around the world.

- Sales increase dramatically as people purchase gifts to celebrate.

- In the U.S., the "Christmas shopping season" (or "Christmas season," "Holiday season") is typically assumed to begin after Thanksgiving (or black Friday) and end in early January.
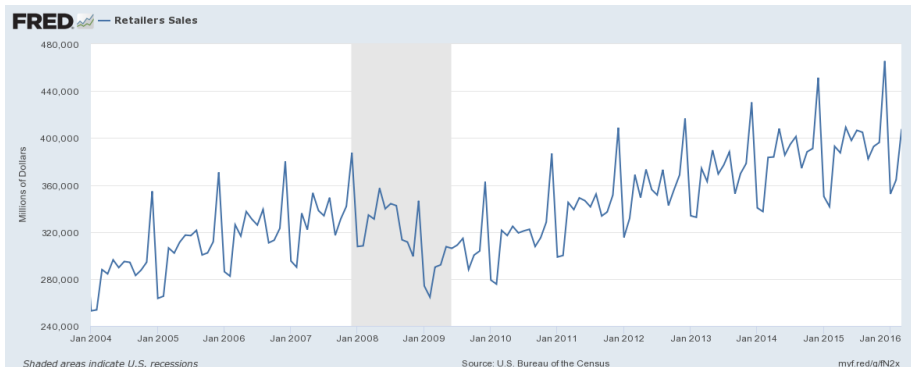
The Christmas Season: Retail Sales

Source: Monthly Retail Trade and Food Services (Definitions)
44000: Retail Trade: U.S. Total — Not Seasonally Adjusted Sales - Monthly [Millions of Dollars]
📄 TXT 📊 XLS-V 📊 XLS-H 📊 Bar Chart 📈 Line Chart

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2001	226,791	223,971	253,439	249,062	268,658	260,315	251,504	266,460	236,210	265,188	262,004	298,666
2002	230,546	228,084	257,133	257,357	271,682	260,385	266,795	277,716	246,350	259,945	263,738	308,821
2003	242,278	233,487	264,542	266,001	281,497	271,258	279,342	285,235	265,353	273,805	272,430	327,750
2004	252,851	253,723	287,978	284,357	296,290	289,701	294,915	294,178	283,016	287,510	294,334	354,715
2005	263,516	265,367	306,433	302,100	311,345	317,432	316,949	321,481	300,513	302,293	311,827	370,906
2006	286,288	282,555	326,301	316,670	337,560	331,024	326,095	339,366	310,984	313,187	323,385	380,670
2007	295,576	290,359	336,214	322,252	353,505	338,494	334,126	349,532	317,450	331,374	342,279	388,095
2008	308,179	308,852	335,128	331,767	358,139	340,680	345,106	343,475	314,363	312,524	300,355	347,838
2009	275,192	265,674	291,377	293,401	308,986	307,620	310,390	316,079	289,579	301,923	305,487	364,700
2010	280,610	277,152	323,117	318,904	326,777	321,187	322,823	324,238	309,555	317,121	330,522	389,448
2011	300,703	302,073	347,545	341,487	351,680	349,306	343,747	354,731	335,985	339,716	354,117	411,906
2012	317,895	334,219	371,733	352,517	376,766	359,522	354,786	376,466	345,992	359,760	372,707	421,777
2013	338,451	337,382	379,556	368,725	395,897	375,384	382,904	394,456	358,058	375,769	384,546	437,087
2014	345,699	342,461	389,563	389,990	413,859	391,309	400,263	405,710	378,526	392,257	NA	NA

The Christmas Season: Retail Sales

FRED — Retailers Sales

Shaded areas indicate U.S. recessions

Source: U.S. Bureau of the Census

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Features of Gift-giving

- Consumption made by someone other than the final consumer, hence can be mismatched with the recipients' preferences.

- Classical microeconomics: The best a gift-giver can do with a certain amount of money is to duplicate the choice that the recipient would have made.

- Therefore, gift-giving is a source of deadweight loss.

- Size of deadweight loss depends on:
  - Giver's acquaintance with recipient's preferences
  - Recipient's knowledge of her own preferences

The Deadweight Loss of Christmas

Two surveys were conducted at Yale:

- <u>Survey 1 question</u>: Apart from any sentimental value of the gifts, if you did not have them, how much would you be willing to pay to obtain them?

- <u>Survey 2 question</u>: Not counting the sentimental value of the gifts, estimate their value as the amount of cash such that you are indifferent between the gifts and the cash.

The Deadweight Loss of Christmas

TABLE 1—AVERAGE AMOUNTS PAID AND VALUES
OF GIFTS, BY RECIPIENT

Variable	Survey 1	Survey 2
Amount paid ($)	438.2	508.9
Value ($)[a]	313.4	462.1
Percentage ratio of average value to average price paid[b]	71.5	90.8
Average percentage yield[c]	66.1	87.1
	(3.3)	(3.2)
Number of recipients	86	58

[a] In survey 1, respondents valued their gifts by their willingness to pay for them. In survey 2, respondents valued their gifts as the money they would accept in lieu of the gifts (see text).

[b] Ratio of average value to average price paid.

[c] Average of (value$_i$/price$_i$). The standard error of average yield is given in parentheses.

The Deadweight Loss of Christmas

TABLE 2—AVERAGE YIELD BY PRICE OF GIFT (EXCLUDING CASH GIFTS)

Price range	Percentage average yield	Standard error (percent)	N
$0–$25	85.8	5.6	102
$26–$50	74.4	3.4	82
$51–$100	89.8	4.2	47
Over $100	88.5	4.2	47
Overall:	83.9	2.8	246

Note: Overall figures are based only on observations with valid information about giver.

The Deadweight Loss of Christmas

TABLE 3—GIFT YIELD AND TENDENCY TO GIVE CASH, BY IDENTITY OF GIVER

Variable	Aunt, uncle	Sibling	Parents	Significant other	Grandparent	Friend	All
A. *Yield of Noncash Gifts:*							
Number of observations	24	49	113	8	15	31	246
Value ($)[a]	40.5	23.5	133.3	24.1	56.1	22.1	77.6
Price ($)[b]	64.6	28.3	135.6	25.4	75.9	25.3	84.0
Percent yield[c]	64.4	86.2	86.5	91.7	62.9	98.8	83.9
	(7.0)	(5.2)	(3.2)	(8.3)	(10.3)	(14.7)	(2.8)
Yield standard error	34.1	36.1	33.9	23.6	40.0	82.0	43.9
Percentage exchanged[d]	20.8	6.1	9.7	0.0	13.3	6.5	9.8
B. *Tendency To Give Cash:*							
Number of observations	28	52	125	8	26	33	278
Age[e]	44	20	48	23	73	27	41
Percentage cash[f]	14.3	5.8	9.6	0.0	42.3	6.1	11.5

[a]Estimated value of gift to recipient.
[b]Recipient's estimate of price giver paid for the gift.
[c]Average of ratio (value$_i$/price$_i$); standard errors of average yield in parentheses.
[d]Fraction of noncash gifts exchanged.
[e]Age of giver (recipients are all aged 18–22).
[f]Percentage of gifts that are cash or gift certificates.
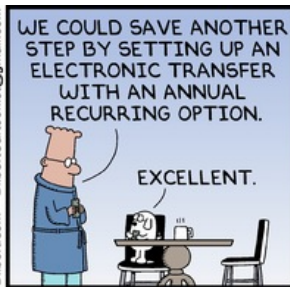
The Deadweight Loss of Christmas

From the survey results:

- Between a 10th and 1/3 of the value of holiday gifts is destroyed by gift-giving.

- Deadweight loss increases with social distance and age difference.

- Gifts from friends and significant others are most efficient.

- Non-cash gifts from members of the extended family are least efficient.
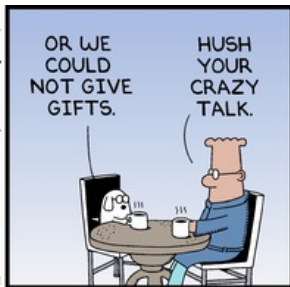
The Deadweight Loss of Christmas

The Deadweight Loss of Christmas

Reference

📄 Waldfogel, J. 1993. "The Deadweight Loss of Christmas," *American Economic Review*, vol. 83(5).