

Fiscal Year 2026
TAX CLASSIFICATION HEARING

Thursday, November 6, 2025

HOLYOKE BOARD OF ASSESSORS

Deborah Brunelle – Chief Assessor/Member

Grant Schlosstein- Assessor/Member

Maureen Cronin - Member

Introduction

Prior to the mailing of 3rd quarter tax billings, the City Council holds a public hearing to determine the percentage of the Town's property tax levy to be borne by each major property class. The responsibility and procedures are described in Chapter 40, Section 56 of the Massachusetts General Laws.

The steps in completing the Classification hearing are outlined below. Also provided is information about the levy, property assessments and information provided by the Board of Assessors.

Steps in Setting Tax Rates

Pre-classification Hearing Steps

- Step 1 - Determination of the property tax levy (Budget Process)
- Step 2 - Determine assessed valuations (Assessors)
- Step 3 - Tabulate assessed valuations by class (Assessors)

Classification Hearing Steps

- Step 4 - Classification hearing presentation (Assessors)
- Step 5 - Determine tax shift options (City Council)
- Step 6 - Voting a tax shift factor (City Council)

Post Classification Hearing Steps

- Step 7 - Sign the LA-5 Classification form (City Council)
- Step 8 - Send annual recap to DOR for tax rate approval (Assessors)
- Step 9 - Obtain DOR approval of tax rates (Assessors)

Terminology

The following are definitions of the terms frequently used in the discussion of tax rates.

Levy: The tax levy (or levy) is the amount of property taxes to be raised. The levy amount is determined by the budget. The total amount of the approved budget less revenues from other sources like motor vehicle excise, municipal fees and state aid is the amount to be raised from taxation.

Levy Ceiling: The levy ceiling is 2-1/2 percent of the full value of the City.
 $\$3,255,040,033 \times 0.025 = \$81,376,001$

New Growth Revenue: Property taxes derived from newly taxable properties like new construction additions, renovations, subdivisions and personal property. **\$1,457,315**

Levy Limit: Also referred to as the "maximum allowable levy", this is calculated by adding 2-1/2 percent of the previous year's levy limit plus new growth revenue for the present fiscal year and any excluded debt payments to last year's levy limit. Exceeding the levy limit requires an override of Proposition 2-1/2. See Schedule on next page:
\$70,978,250

Excess Levy Capacity: Excess levy capacity is the difference between the actual levy and the levy limit. **\$81,376,001 - \$70,978,250 = \$10,397,751**

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The Fiscal Year 2026 Levy Limit and Amount to be Raised

The following is a calculation of Holyoke's levy limit for fiscal year 2026

Fiscal year 2025 levy limit	\$67,816,208
Amended Fiscal Year 2025 Growth	\$9,094
Levy Increase Allowed under Prop 2-1/2	\$1,695,633
Fiscal Year 2026 New Growth	\$1,457,315
Fiscal Year 2026 Overrides	0
Fiscal Year 2026 Subtotal	\$70,978,250
Capital Expenditures Exclusions	0
Fiscal Year 2026 Levy Limit	\$70,978,250
Levy Ceiling	\$81,376,001
Levy to be raised	
Excess Levy Capacity	

Summary of Assessments (LA4)

Fiscal year 2026 is an Interim Year adjustment for the city of Holyoke. During the interim year values are adjusted according to the market. Sales from a full calendar year before are studied to determine what sales are considered arms length sales. All sales that are not arms length are not included in sales analysis studies. The valid arms length sales are verified and inspected. Class codes are changed according to the use of the property and sales analysis ratios are determined. The ratios determine whether values increase or decrease. These ratios are applied to all properties of a certain class to either raise values or decrease values according to the market. Although we had fewer sales than the previous year, sale prices for 2024 continued to increase from 2023 especially in the two and three family class. All properties were adjusted in each class to provide uniform and equitable assessments. Personal property accounts are reviewed for appropriate listing and valuation along with cost and depreciation tables. This year a new company provided services for all personal property in the city which resulted in finding new assets, under reported values and hundreds of new accounts. This discovery created much of our new growth.

See attached Assessment Classification Report: LA4

Residential Class increase of.... 8%

Commercial Class increase of...2.6%

Industrial Class increase of2.9%

Personal Property class increase of ...18.7%

DIVISION OF LOCAL SERVICES

CITY

BUREAU OF LOCAL ASSESSMENT

Approved LA-4

ASSESSMENT/CLASSIFICATION REPORT as of January 1, 2025

Fiscal Year 2026

Property Type	Parcel Count	Class1 Residential	Class2 Open Space	Class3 Commercial	Class4 Industrial	Class5 Pers Prop
101	5,331	1,626,936,000				
102	458	81,846,700				
MISC 103,109	18	6,086,300				
104	1,329	399,608,300				
105	274	81,630,100				
111-125	308	279,433,500				
130-32,106	793	20,571,088				
200-231	0		0			
300-393	677			489,787,887		
400-442	195					
450-452	4				76,780,621	
CH 61 LAND	2	2	0	12,788	1,611,100	
CH 61A LAND	8	15	0	174,124		
CH 61B LAND	4	6	0	1,541,252		
012-043	173	72,342,320	0	23,930,381	8,826,692	
501	233					20,779,300
502	260					28,700,440
503	0					0
504	1					13,624,780
505	5					14,192,600
506	1					835,700
508	3					3,212,940
550-552	11					2,575,120
TOTALS	10,111	2,568,454,308	0	515,446,432	87,218,413	83,920,880
Real and Personal Property Total Value						3,255,040,033
Exempt Parcel Count & Value						932 604,057,205

For CH 61, 61A and 61B Land: enter the mixed use parcel count in the left-hand box, and enter the 100% Chapter land parcel count in the right-hand box.

Signatures

Board of Assessors

Maureen Cronin, Board of Assessors, Holyoke, maureencronin@comcast.net 413-322-5550 | 9/30/2025 11:34 AM

Deborah J. Brunelle, Chief Assessor, Holyoke, brunelled@holyoke.org 413-322-5550 | 9/29/2025 1:30 PM

AVERAGE TAX DATA FOR FISCAL 2021 – 2026

SINGLE FAMILY HOMES – CLASS 101

FISCAL YR	TOTAL VALUE	PARCELS	AVE VALUE	TAX RATE	AVE TAX
2026	\$1,626,936,000	5331	\$305,184		
2025	\$1,516,607,400	5331	\$284,488	\$17.46	\$4,967
2024	\$1,311,252,200	5329	\$246,060	\$18.95	\$4,663
2023	\$1,258,802,500	5328	\$236,262	\$18.76	\$4,432
2022	\$1,168,897,359	5326	\$219,470	\$19.26	\$4,227

TWO FAMILY HOMES – CLASS 104

FISCAL YR	TOTAL VALUE	PARCELS	AVE VALUE	TAX RATE	AVE TAX
2026	\$399,608,300	1329	\$300,684	\$	\$
2025	\$370,292,600	1,329	\$278,625	\$17.46	\$4,865
2024	\$316,877,200	1,320	\$240,058	\$18.95	\$4,549
2023	\$292,070,400	1,316	\$221,938	\$18.76	\$4,164
2022	\$282,155,500	1,316	\$214,404	\$19.26	\$4,129

COMMERCIAL & INDUSTRIAL -CLASS 300 & 400

FISCAL YR	TOTAL VALUE	PARCELS	AVE VALUE	TAX RATE	AVE TAX
2026	\$575,570,119	876	\$657,400	\$	\$
2025	\$554,577,114	871	\$635,983	\$38.55	\$24,517
2024	\$506,797,048	882	\$574,599	\$40.26	\$23,133
2023	\$493,106,127	886	\$556,553	\$40.17	\$22,357
2022	\$492,893,717	890	\$553,813	\$40.60	\$22,484

COMMERCIAL & INDUSTRIAL (EXCLUDING THE MALL)

2026	\$465,803,213	873	\$533,566	\$	\$
2025	\$444,016,214	868	\$511,536	\$38.55	\$19,720
2024	\$390,848,148	880	\$444,146	\$40.26	\$17,881
2023	\$365,887,123	883	\$414,368	\$40.17	\$16,645
2022	\$359,871,913	887	\$405,718	\$40.60	\$16,472

THE HOLYOKE MALL 2026 ASSESSMENT \$109,766,904

THE HOLYOKE MALL 2025 ASSESSMENT \$110,560,900

Shifting the Tax Burden – Fiscal Year 2026

I. Calculation of the minimum residential factor - 150% shift

The Minimum Residential Factor is used to make sure the shift of the tax burden complies with the law (M.G.L. c. 58, §1A). Residential and Open Space Taxpayers must pay at least 65% of their full and fair cash value share of the levy.

Commercial/Industrial/Personal property taxpayers cannot pay more than 150% of their full and fair cash value share of the levy. If the calculated Minimum Residential Factor is less than 65%, a community cannot make the maximum shift and must use a commercial/ industrial/ personal property factor less than 150%.

A-CLASS	B-FULL AND FAIR CASH VALUATION	C-PERCENTAGE SHARE	D-COMBINED RE/OS CIP
1. Residential	\$2,568,454,308	78.906996%	78.906996%
2. Open Space	0	0%	0
3. Commercial	\$ 515,446,432	15.835333%	21.093004%
4. Industrial	\$ 87,218,413	2.679488%	
5. Personal Property	\$ 83,920,880	2.578183%	
Totals	\$3,255,040,033	100.000000%	

II. Calculation of the lowest possible residential factor - 175% (Chapter 200)

Chapter 200 of the Acts of 1988 amended M.G.L. c. 58, §1A to allow cities and towns to give Residential property taxpayers greater tax relief by adopting a shift of the property tax burden from Residential taxpayers to the Commercial, Industrial and Personal Property taxpayers, provided certain parameters are not exceeded. Chapter 200 allows a shift of up to 75% (also known as a 175% shift) and lowers the percentage that Residential and Open Space taxpayers must raise to 50%. By expanding the shift, the tax levy on Commercial, Industrial and Personal Property taxpayers increases and the tax levy on Residential and Open Space taxpayers decreases.

The first Section (Steps 1, 2, & 3) determines whether Residential taxpayers would raise a greater percentage of the property tax levy this fiscal year than they raised last year, if the city voted the existing law's maximum shift of 150% onto Commercial/Industrial/Personal Property taxpayers.

1. Last year's chosen Residential percentage (Residential only does not include Open Space)

This is last year's chosen residential percentage (RES%), not including Open Space, from form LA-5 (under the "SHIFT PERCENT'S" section). (NOTE: The residential share in the fiscal year prior to a community's first property value certification may be used if the assessors can document that it was lower than the prior year's LA5 RES%.)

62.091700%

2. This year's Maximum Share of Levy for Commercial/Industrial/Personal Property

150% x 21.093004% (Lines 3C + 4C + 5C) = **31.639506%** (Max % Share)

3. Minimum Share of Levy for Residential and Open Space

100% - 31.639506% (Max % Share) = **68.360494%** (Min % Share)

4. This year's Minimum Residential Factor using a 150% shift to Commercial/Industrial/Personal

68.360494% (min % share) / 78.906996% (Lines 1C+2C) = **86.6634%** (Minimum Residential Factor)

MINIMUM RESIDENTIAL FACTOR: 86.634262%. Chapter 58, Section 1A mandates a minimum residential factor of not less than 65 percent.

When the Minimum Residential Factor is multiplied by % share of the Residential and Open space full and fair cash value, it reduces the Residential and Open Space share to its Minimum % Share of the Levy as calculated above.

Voting a Tax Shift Factor

The Holyoke City Council votes in accordance with M.G.L., Ch. 40, Sec. 56, as amended, the percentage of local tax levy which will be borne by each class of real and personal property, relative to setting the Fiscal year 2025 tax rates and set the Residential Factor at _____ with a corresponding CIP shift of _____ pending certification of the City's annual tax recap by the Massachusetts Department of Revenue.

FY 2026 Levy Limit

Enter a Levy (estimated if necessary)

Levy	\$70,978,258
Single Tax Rate	\$21.81

Using the levy provided, attached is a sample of what the tax rates would be. The actual levy we use will be determined by the City Auditor. New data will be provided at that time.

Levy Limit **Fiscal Year 2026**

FOR BUDGET PLANNING PURPOSES

I. TO CALCULATE THE FY 2025 LEVY LIMIT

A. FY 2024 Levy Limit	64,786,904	
A1. Amended FY 2024 Growth	0	
B. ADD (IA + IA1)*2.5%	1,619,673	
C. ADD FY 2025 New Growth	1,409,631	
C1. ADD FY 2025 New Growth Adjustment	0	
D. ADD FY 2025 Override	0	
E. FY 2025 Subtotal	67,816,208	
F. FY 2025 Levy Ceiling	<u>75,928,935</u>	I. <u>67,816,208</u>
		FY 2025 Levy Limit

II. TO CALCULATE THE FY 2026 LEVY LIMIT

A. FY 2025 Levy Limit from I	67,816,208	
A1. Amended FY 2025 Growth	9,094	
B. ADD (IIA + IIA1)*2.5%	1,695,633	
C. ADD FY 2026 New Growth	1,457,315	
C1. ADD FY 2026 New Growth Adjustment	0	
D. ADD FY 2026 Override	0	
E. ADD FY 2026 Subtotal	70,978,250	
F. FY 2026 Levy Ceiling	<u>81,376,001</u>	II. <u>70,978,250</u>
		FY 2026 Levy Limit

III. TO CALCULATE THE FY 2026 MAXIMUM ALLOWABLE LEVY

A. FY 2026 Levy Limit from II.	70,978,250
B. FY 2026 Debt Exclusion(s)	0
C. FY 2026 Capital Expenditure Exclusion(s)	0
D. FY 2026 Stabilization Fund Override	0
E. FY 2026 Other Adjustment :	0
F. FY 2026 Water/Sewer	0
G. FY 2026 Maximum Allowable Levy	<u>70,978,250</u>

Signatures

No signatures to display.

Documents

No documents have been uploaded.

MassDOR - Massachusetts Department of Revenue

Division of Local Services

What If ... Scenario Worksheet for FY 2026

Holyoke - 137

CLASS	VALUE	%	
Residential	2,568,454,308	78.9070	R & O %
Open Space	0	0.0000	
Commercial	515,446,432	15.8353	C I P %
Industrial	87,218,413	2.6795	
Personal Proper	83,920,880	2.5782	
Total	3,255,040,033	100.0000	21.0930

ENTER A LEVY (ESTIMATED IF N

Levy	70,978,250
Single TaxRate	21.81

Actual Calculations may differ due to rounding. *

Share Percentages

CIP Shift	Res Factor	Res SP	OS SP	Res ET	Comm ET
1.0000	1.0000	78.9070	0.0000	21.81	21.81
1.0025	0.9993	78.8543	0.0000	21.79	21.86
1.0050	0.9987	78.8015	0.0000	21.78	21.91
1.0075	0.9980	78.7488	0.0000	21.76	21.97
1.0100	0.9973	78.6961	0.0000	21.75	22.02
1.0125	0.9967	78.6433	0.0000	21.73	22.08
1.0150	0.9960	78.5906	0.0000	21.72	22.13
1.0175	0.9953	78.5379	0.0000	21.70	22.19
1.0200	0.9947	78.4851	0.0000	21.69	22.24
1.0225	0.9940	78.4324	0.0000	21.67	22.30
1.0250	0.9933	78.3797	0.0000	21.66	22.35
1.0275	0.9926	78.3269	0.0000	21.65	22.41
1.0300	0.9920	78.2742	0.0000	21.63	22.46
1.0325	0.9913	78.2215	0.0000	21.62	22.51
1.0350	0.9906	78.1687	0.0000	21.60	22.57
1.0375	0.9900	78.1160	0.0000	21.59	22.62
1.0400	0.9893	78.0633	0.0000	21.57	22.68
1.0425	0.9886	78.0105	0.0000	21.56	22.73
1.0450	0.9880	77.9578	0.0000	21.54	22.79
1.0475	0.9873	77.9051	0.0000	21.53	22.84
1.0500	0.9866	77.8523	0.0000	21.51	22.90
1.0525	0.9860	77.7996	0.0000	21.50	22.95
1.0550	0.9853	77.7469	0.0000	21.49	23.00
1.0575	0.9846	77.6941	0.0000	21.47	23.06
1.0600	0.9840	77.6414	0.0000	21.46	23.11
1.0625	0.9833	77.5887	0.0000	21.44	23.17
1.0650	0.9826	77.5360	0.0000	21.43	23.22

1.0675	0.9820	77.4832	0.0000	21.41	23.28
1.0700	0.9813	77.4305	0.0000	21.40	23.33
1.0725	0.9806	77.3778	0.0000	21.38	23.39
1.0750	0.9800	77.3250	0.0000	21.37	23.44
1.0775	0.9793	77.2723	0.0000	21.35	23.50
1.0800	0.9786	77.2196	0.0000	21.34	23.55
1.0825	0.9779	77.1668	0.0000	21.32	23.60
1.0850	0.9773	77.1141	0.0000	21.31	23.66
1.0875	0.9766	77.0614	0.0000	21.30	23.71
1.0900	0.9759	77.0086	0.0000	21.28	23.77
1.0925	0.9753	76.9559	0.0000	21.27	23.82
1.0950	0.9746	76.9032	0.0000	21.25	23.88
1.0975	0.9739	76.8504	0.0000	21.24	23.93
1.1000	0.9733	76.7977	0.0000	21.22	23.99
1.1025	0.9726	76.7450	0.0000	21.21	24.04
1.1050	0.9719	76.6922	0.0000	21.19	24.10
1.1075	0.9713	76.6395	0.0000	21.18	24.15
1.1100	0.9706	76.5868	0.0000	21.16	24.20
1.1125	0.9699	76.5340	0.0000	21.15	24.26
1.1150	0.9693	76.4813	0.0000	21.14	24.31
1.1175	0.9686	76.4286	0.0000	21.12	24.37
1.1200	0.9679	76.3758	0.0000	21.11	24.42
1.1225	0.9673	76.3231	0.0000	21.09	24.48
1.1250	0.9666	76.2704	0.0000	21.08	24.53
1.1275	0.9659	76.2176	0.0000	21.06	24.59
1.1300	0.9652	76.1649	0.0000	21.05	24.64
1.1325	0.9646	76.1122	0.0000	21.03	24.69
1.1350	0.9639	76.0594	0.0000	21.02	24.75
1.1375	0.9632	76.0067	0.0000	21.00	24.80
1.1400	0.9626	75.9540	0.0000	20.99	24.86
1.1425	0.9619	75.9012	0.0000	20.98	24.91
1.1450	0.9612	75.8485	0.0000	20.96	24.97
1.1475	0.9606	75.7958	0.0000	20.95	25.02
1.1500	0.9599	75.7430	0.0000	20.93	25.08
1.1525	0.9592	75.6903	0.0000	20.92	25.13
1.1550	0.9586	75.6376	0.0000	20.90	25.19
1.1575	0.9579	75.5848	0.0000	20.89	25.24
1.1600	0.9572	75.5321	0.0000	20.87	25.29
1.1625	0.9566	75.4794	0.0000	20.86	25.35
1.1650	0.9559	75.4267	0.0000	20.84	25.40
1.1675	0.9552	75.3739	0.0000	20.83	25.46
1.1700	0.9546	75.3212	0.0000	20.81	25.51
1.1725	0.9539	75.2685	0.0000	20.80	25.57
1.1750	0.9532	75.2157	0.0000	20.79	25.62
1.1775	0.9526	75.1630	0.0000	20.77	25.68
1.1800	0.9519	75.1103	0.0000	20.76	25.73
1.1825	0.9512	75.0575	0.0000	20.74	25.79
1.1850	0.9505	75.0048	0.0000	20.73	25.84

1.1875	0.9499	74.9521	0.0000	20.71	25.89
1.1900	0.9492	74.8993	0.0000	20.70	25.95
1.1925	0.9485	74.8466	0.0000	20.68	26.00
1.1950	0.9479	74.7939	0.0000	20.67	26.06
1.1975	0.9472	74.7411	0.0000	20.65	26.11
1.2000	0.9465	74.6884	0.0000	20.64	26.17
1.2025	0.9459	74.6357	0.0000	20.63	26.22
1.2050	0.9452	74.5829	0.0000	20.61	26.28
1.2075	0.9445	74.5302	0.0000	20.60	26.33
1.2100	0.9439	74.4775	0.0000	20.58	26.38
1.2125	0.9432	74.4247	0.0000	20.57	26.44
1.2150	0.9425	74.3720	0.0000	20.55	26.49
1.2175	0.9419	74.3193	0.0000	20.54	26.55
1.2200	0.9412	74.2665	0.0000	20.52	26.60
1.2225	0.9405	74.2138	0.0000	20.51	26.66
1.2250	0.9399	74.1611	0.0000	20.49	26.71
1.2275	0.9392	74.1083	0.0000	20.48	26.77
1.2300	0.9385	74.0556	0.0000	20.46	26.82
1.2325	0.9378	74.0029	0.0000	20.45	26.88
1.2350	0.9372	73.9501	0.0000	20.44	26.93
1.2375	0.9365	73.8974	0.0000	20.42	26.98
1.2400	0.9358	73.8447	0.0000	20.41	27.04
1.2425	0.9352	73.7919	0.0000	20.39	27.09
1.2450	0.9345	73.7392	0.0000	20.38	27.15
1.2475	0.9338	73.6865	0.0000	20.36	27.20
1.2500	0.9332	73.6337	0.0000	20.35	27.26
1.2525	0.9325	73.5810	0.0000	20.33	27.31
1.2550	0.9318	73.5283	0.0000	20.32	27.37
1.2575	0.9312	73.4755	0.0000	20.30	27.42
1.2600	0.9305	73.4228	0.0000	20.29	27.48
1.2625	0.9298	73.3701	0.0000	20.28	27.53
1.2650	0.9292	73.3173	0.0000	20.26	27.58
1.2675	0.9285	73.2646	0.0000	20.25	27.64
1.2700	0.9278	73.2119	0.0000	20.23	27.69
1.2725	0.9272	73.1592	0.0000	20.22	27.75
1.2750	0.9265	73.1064	0.0000	20.20	27.80
1.2775	0.9258	73.0537	0.0000	20.19	27.86
1.2800	0.9252	73.0010	0.0000	20.17	27.91
1.2825	0.9245	72.9482	0.0000	20.16	27.97
1.2850	0.9238	72.8955	0.0000	20.14	28.02
1.2875	0.9231	72.8428	0.0000	20.13	28.07
1.2900	0.9225	72.7900	0.0000	20.12	28.13
1.2925	0.9218	72.7373	0.0000	20.10	28.18
1.2950	0.9211	72.6846	0.0000	20.09	28.24
1.2975	0.9205	72.6318	0.0000	20.07	28.29
1.3000	0.9198	72.5791	0.0000	20.06	28.35
1.3025	0.9191	72.5264	0.0000	20.04	28.40
1.3050	0.9185	72.4736	0.0000	20.03	28.46

1.3075	0.9178	72.4209	0.0000	20.01	28.51
1.3100	0.9171	72.3682	0.0000	20.00	28.57
1.3125	0.9165	72.3154	0.0000	19.98	28.62
1.3150	0.9158	72.2627	0.0000	19.97	28.67
1.3175	0.9151	72.2100	0.0000	19.95	28.73
1.3200	0.9145	72.1572	0.0000	19.94	28.78
1.3225	0.9138	72.1045	0.0000	19.93	28.84
1.3250	0.9131	72.0518	0.0000	19.91	28.89
1.3275	0.9125	71.9990	0.0000	19.90	28.95
1.3300	0.9118	71.9463	0.0000	19.88	29.00
1.3325	0.9111	71.8936	0.0000	19.87	29.06
1.3350	0.9104	71.8408	0.0000	19.85	29.11
1.3375	0.9098	71.7881	0.0000	19.84	29.17
1.3400	0.9091	71.7354	0.0000	19.82	29.22
1.3425	0.9084	71.6826	0.0000	19.81	29.27
1.3450	0.9078	71.6299	0.0000	19.79	29.33
1.3475	0.9071	71.5772	0.0000	19.78	29.38
1.3500	0.9064	71.5244	0.0000	19.77	29.44
1.3525	0.9058	71.4717	0.0000	19.75	29.49
1.3550	0.9051	71.4190	0.0000	19.74	29.55
1.3575	0.9044	71.3662	0.0000	19.72	29.60
1.3600	0.9038	71.3135	0.0000	19.71	29.66
1.3625	0.9031	71.2608	0.0000	19.69	29.71
1.3650	0.9024	71.2080	0.0000	19.68	29.76
1.3675	0.9018	71.1553	0.0000	19.66	29.82
1.3700	0.9011	71.1026	0.0000	19.65	29.87
1.3725	0.9004	71.0499	0.0000	19.63	29.93
1.3750	0.8998	70.9971	0.0000	19.62	29.98
1.3775	0.8991	70.9444	0.0000	19.61	30.04
1.3800	0.8984	70.8917	0.0000	19.59	30.09
1.3825	0.8978	70.8389	0.0000	19.58	30.15
1.3850	0.8971	70.7862	0.0000	19.56	30.20
1.3875	0.8964	70.7335	0.0000	19.55	30.26
1.3900	0.8957	70.6807	0.0000	19.53	30.31
1.3925	0.8951	70.6280	0.0000	19.52	30.36
1.3950	0.8944	70.5753	0.0000	19.50	30.42
1.3975	0.8937	70.5225	0.0000	19.49	30.47
1.4000	0.8931	70.4698	0.0000	19.47	30.53
1.4025	0.8924	70.4171	0.0000	19.46	30.58
1.4050	0.8917	70.3643	0.0000	19.44	30.64
1.4075	0.8911	70.3116	0.0000	19.43	30.69
1.4100	0.8904	70.2589	0.0000	19.42	30.75
1.4125	0.8897	70.2061	0.0000	19.40	30.80
1.4150	0.8891	70.1534	0.0000	19.39	30.85
1.4175	0.8884	70.1007	0.0000	19.37	30.91
1.4200	0.8877	70.0479	0.0000	19.36	30.96
1.4225	0.8871	69.9952	0.0000	19.34	31.02
1.4250	0.8864	69.9425	0.0000	19.33	31.07

1.4275	0.8857	69.8897	0.0000	19.31	31.13
1.4300	0.8851	69.8370	0.0000	19.30	31.18
1.4325	0.8844	69.7843	0.0000	19.28	31.24
1.4350	0.8837	69.7315	0.0000	19.27	31.29
1.4375	0.8830	69.6788	0.0000	19.26	31.35
1.4400	0.8824	69.6261	0.0000	19.24	31.40
1.4425	0.8817	69.5733	0.0000	19.23	31.45
1.4450	0.8810	69.5206	0.0000	19.21	31.51
1.4475	0.8804	69.4679	0.0000	19.20	31.56
1.4500	0.8797	69.4151	0.0000	19.18	31.62
1.4525	0.8790	69.3624	0.0000	19.17	31.67
1.4550	0.8784	69.3097	0.0000	19.15	31.73
1.4575	0.8777	69.2569	0.0000	19.14	31.78
1.4600	0.8770	69.2042	0.0000	19.12	31.84
1.4625	0.8764	69.1515	0.0000	19.11	31.89
1.4650	0.8757	69.0987	0.0000	19.10	31.95
1.4675	0.8750	69.0460	0.0000	19.08	32.00
1.4700	0.8744	68.9933	0.0000	19.07	32.05
1.4725	0.8737	68.9406	0.0000	19.05	32.11
1.4750	0.8730	68.8878	0.0000	19.04	32.16
1.4775	0.8724	68.8351	0.0000	19.02	32.22
1.4800	0.8717	68.7824	0.0000	19.01	32.27
1.4825	0.8710	68.7296	0.0000	18.99	32.33
1.4850	0.8704	68.6769	0.0000	18.98	32.38
1.4875	0.8697	68.6242	0.0000	18.96	32.44
1.4900	0.8690	68.5714	0.0000	18.95	32.49
1.4925	0.8683	68.5187	0.0000	18.93	32.54
1.4950	0.8677	68.4660	0.0000	18.92	32.60
1.4975	0.8670	68.4132	0.0000	18.91	32.65
1.5000	0.8663	68.3605	0.0000	18.89	32.71
1.5025	0.8657	68.3078	0.0000	18.88	32.76
1.5050	0.8650	68.2550	0.0000	18.86	32.82
1.5075	0.8643	68.2023	0.0000	18.85	32.87
1.5100	0.8637	68.1496	0.0000	18.83	32.93
1.5125	0.8630	68.0968	0.0000	18.82	32.98
1.5150	0.8623	68.0441	0.0000	18.80	33.04
1.5175	0.8617	67.9914	0.0000	18.79	33.09
1.5200	0.8610	67.9386	0.0000	18.77	33.14
1.5225	0.8603	67.8859	0.0000	18.76	33.20
1.5250	0.8597	67.8332	0.0000	18.75	33.25
1.5275	0.8590	67.7804	0.0000	18.73	33.31
1.5300	0.8583	67.7277	0.0000	18.72	33.36
1.5325	0.8577	67.6750	0.0000	18.70	33.42
1.5350	0.8570	67.6222	0.0000	18.69	33.47
1.5375	0.8563	67.5695	0.0000	18.67	33.53
1.5400	0.8557	67.5168	0.0000	18.66	33.58
1.5425	0.8550	67.4640	0.0000	18.64	33.64
1.5450	0.8543	67.4113	0.0000	18.63	33.69

1.5475	0.8536	67.3586	0.0000	18.61	33.74
1.5500	0.8530	67.3058	0.0000	18.60	33.80
1.5525	0.8523	67.2531	0.0000	18.59	33.85
1.5550	0.8516	67.2004	0.0000	18.57	33.91
1.5575	0.8510	67.1476	0.0000	18.56	33.96
1.5600	0.8503	67.0949	0.0000	18.54	34.02
1.5625	0.8496	67.0422	0.0000	18.53	34.07
1.5650	0.8490	66.9894	0.0000	18.51	34.13
1.5675	0.8483	66.9367	0.0000	18.50	34.18
1.5700	0.8476	66.8840	0.0000	18.48	34.23
1.5725	0.8470	66.8313	0.0000	18.47	34.29
1.5750	0.8463	66.7785	0.0000	18.45	34.34
1.5775	0.8456	66.7258	0.0000	18.44	34.40
1.5800	0.8450	66.6731	0.0000	18.42	34.45
1.5825	0.8443	66.6203	0.0000	18.41	34.51
1.5850	0.8436	66.5676	0.0000	18.40	34.56
1.5875	0.8430	66.5149	0.0000	18.38	34.62
1.5900	0.8423	66.4621	0.0000	18.37	34.67
1.5925	0.8416	66.4094	0.0000	18.35	34.73
1.5950	0.8409	66.3567	0.0000	18.34	34.78
1.5975	0.8403	66.3039	0.0000	18.32	34.83
1.6000	0.8396	66.2512	0.0000	18.31	34.89
1.6025	0.8389	66.1985	0.0000	18.29	34.94
1.6050	0.8383	66.1457	0.0000	18.28	35.00
1.6075	0.8376	66.0930	0.0000	18.26	35.05
1.6100	0.8369	66.0403	0.0000	18.25	35.11
1.6125	0.8363	65.9875	0.0000	18.24	35.16
1.6150	0.8356	65.9348	0.0000	18.22	35.22
1.6175	0.8349	65.8821	0.0000	18.21	35.27
1.6200	0.8343	65.8293	0.0000	18.19	35.33
1.6225	0.8336	65.7766	0.0000	18.18	35.38
1.6250	0.8329	65.7239	0.0000	18.16	35.43
1.6275	0.8323	65.6711	0.0000	18.15	35.49
1.6300	0.8316	65.6184	0.0000	18.13	35.54
1.6325	0.8309	65.5657	0.0000	18.12	35.60
1.6350	0.8303	65.5129	0.0000	18.10	35.65
1.6375	0.8296	65.4602	0.0000	18.09	35.71
1.6400	0.8289	65.4075	0.0000	18.08	35.76
1.6425	0.8283	65.3547	0.0000	18.06	35.82
1.6450	0.8276	65.3020	0.0000	18.05	35.87
1.6475	0.8269	65.2493	0.0000	18.03	35.92
1.6500	0.8262	65.1965	0.0000	18.02	35.98
1.6525	0.8256	65.1438	0.0000	18.00	36.03
1.6550	0.8249	65.0911	0.0000	17.99	36.09
1.6575	0.8242	65.0383	0.0000	17.97	36.14
1.6600	0.8236	64.9856	0.0000	17.96	36.20
1.6625	0.8229	64.9329	0.0000	17.94	36.25
1.6650	0.8222	64.8801	0.0000	17.93	36.31

1.6675	0.8216	64.8274	0.0000	17.91	36.36
1.6700	0.8209	64.7747	0.0000	17.90	36.42
1.6725	0.8202	64.7220	0.0000	17.89	36.47
1.6750	0.8196	64.6692	0.0000	17.87	36.52
1.6775	0.8189	64.6165	0.0000	17.86	36.58
1.6800	0.8182	64.5638	0.0000	17.84	36.63
1.6825	0.8176	64.5110	0.0000	17.83	36.69
1.6850	0.8169	64.4583	0.0000	17.81	36.74
1.6875	0.8162	64.4056	0.0000	17.80	36.80
1.6900	0.8156	64.3528	0.0000	17.78	36.85
1.6925	0.8149	64.3001	0.0000	17.77	36.91
1.6950	0.8142	64.2474	0.0000	17.75	36.96
1.6975	0.8135	64.1946	0.0000	17.74	37.02
1.7000	0.8129	64.1419	0.0000	17.73	37.07
1.7025	0.8122	64.0892	0.0000	17.71	37.12
1.7050	0.8115	64.0364	0.0000	17.70	37.18
1.7075	0.8109	63.9837	0.0000	17.68	37.23
1.7100	0.8102	63.9310	0.0000	17.67	37.29
1.7125	0.8095	63.8782	0.0000	17.65	37.34
1.7150	0.8089	63.8255	0.0000	17.64	37.40
1.7175	0.8082	63.7728	0.0000	17.62	37.45
1.7200	0.8075	63.7200	0.0000	17.61	37.51
1.7225	0.8069	63.6673	0.0000	17.59	37.56
1.7250	0.8062	63.6146	0.0000	17.58	37.61
1.7275	0.8055	63.5618	0.0000	17.57	37.67
1.7300	0.8049	63.5091	0.0000	17.55	37.72
1.7325	0.8042	63.4564	0.0000	17.54	37.78
1.7350	0.8035	63.4036	0.0000	17.52	37.83
1.7375	0.8029	63.3509	0.0000	17.51	37.89
1.7400	0.8022	63.2982	0.0000	17.49	37.94
1.7425	0.8015	63.2454	0.0000	17.48	38.00
1.7450	0.8009	63.1927	0.0000	17.46	38.05
1.7475	0.8002	63.1400	0.0000	17.45	38.11
1.7500	0.7995	63.0872	0.0000	17.43	38.16