

Unemployment Insurance Trust Fund Report

Outlook Report August 2017

HIGHLIGHTS

This Outlook Report provides the status of the Unemployment Insurance Trust Fund and updated projections for the 2017 through 2021 outlook period.

As required by MGL Chapter 151A, Section 14F, DUA publishes quarterly outlooks for the Trust Fund based on forecasts for total unemployment rate, annual wage and salary growth rate, and annual labor force. DUA also provides monthly reports updating the status of the Trust Fund.

New economic assumptions from Moody's economy.com used in these projections show higher average annual unemployment rates in 2017 and 2018 and lower rates in 2019 to 2021, as compared to the assumptions used in the May 2017 Outlook Report. For 2017, the average annual unemployment rate is up from 3.5 percent to 4.0 percent followed by a 4.1 percent annual rate in 2018, which is two-tenths of a percentage point higher than the previous rate used. Total labor force increases in 2017 to 2021 show an average annual increase of 76,200. The annual wage and salary growth rates are lower in all the outlook years with the rate in 2017 posting the largest decrease, from 5.3 percent down to 3.0 percent.

The outlook presented is for the regular UI program based on 2017 employer experience rates and benefit payments and employer contributions through the end of the second quarter of 2017.

The revised 2017 year-end projections indicate employer contributions, based on rate schedule C and a \$15,000 taxable wage base, will be \$1.372 billion in-line with the previous estimate of \$1.359 billion. Estimated benefit payments of \$1.425 billion are \$55 million more than the previous estimate of \$1.370 billion first released in the May 2017 Outlook Report. The difference is due to a projected increase in the annual average unemployment rate resulting in additional weeks claimed and weeks compensated. The average weekly benefit amount is also projected to be higher. As a result, the private contributory account year-end balance estimated at \$803 million is \$42 million lower than the previous estimate of \$845 million. The projected 2017 ending balance is \$33 million less than last year's ending balance of \$836 million.

Chapter 63 of the Acts of 2017 enacted in August, sets private contributory employer rate schedule D for 2018 and rate schedule E for 2019 for employer contributions.

For 2018 contributions on rate schedule D and a \$15,000 wage base will generate an estimated \$1.513 billion in employer contributions. Employer contributions are \$411 million lower than the previous estimate of \$1.924 billion on a higher tax schedule F. Benefit payments are projected at \$1.554 billion. The 2018 year-end private contributory account balance is now estimated at \$780 million, \$455 million less than the balance of \$1.235 billion published in May.

Rate schedule E as set by statute for 2019 employer payrolls and a \$15,000 taxable wage base results in employer contributions of \$1.714 billion. Benefit payments are estimated at \$1.521 billion. The year-end private contributory account balance is projected to be \$994 million, \$237 million less than the previous estimate.

For 2020 rate schedule F is projected to trigger for employer contributions. With a \$15,000 taxable wage base, employer contributions are projected to be \$1.857 billion and benefit payments are estimated at \$1.657 billion. Year-end 2020 private contributory account balance is projected at \$1.222 billion., \$157 million more than the previous estimate due to the triggering of a higher rate schedule for employer payrolls.

Tax rate schedule E is projected to trigger for 2021 employer payrolls. Employer contributions are projected at \$1.606 billion with benefit payments estimated at \$1.804 billion generating a year-end balance at \$1.051 billion.

Based on the current economic assumptions and statutory provisions, no borrowing from the federal unemployment account is anticipated in 2017 through 2021.

ECONOMIC ASSUMPTIONS

DUA utilizes independent economic forecasts as the basis for its estimates of income and expenditure for the Massachusetts Unemployment Insurance program. Moody's Economy.com July 2017 forecasts were used in the benefit financing simulations for this report. The current assumptions, along with assumptions used to produce the simulation estimates published in the February and May 2017 Outlook Reports are provided in Table 1.

The July 2017 Moody's Economy.com Annual Wage and Salary Growth Rates forecast for 2017 to 2012 were all revised down. The rate for 2017 showed the largest decrease from 5.3 percent down to 3.0 percent. The wage and salary growth rates all posted a two-tenths of a percentage decrease in 2018 to 2020 and in 2021 a rate from 3.3 percent down to 3.2 percent.

The projected annual average total unemployment rates for 2017 and 2018 are higher than the rates used in the May

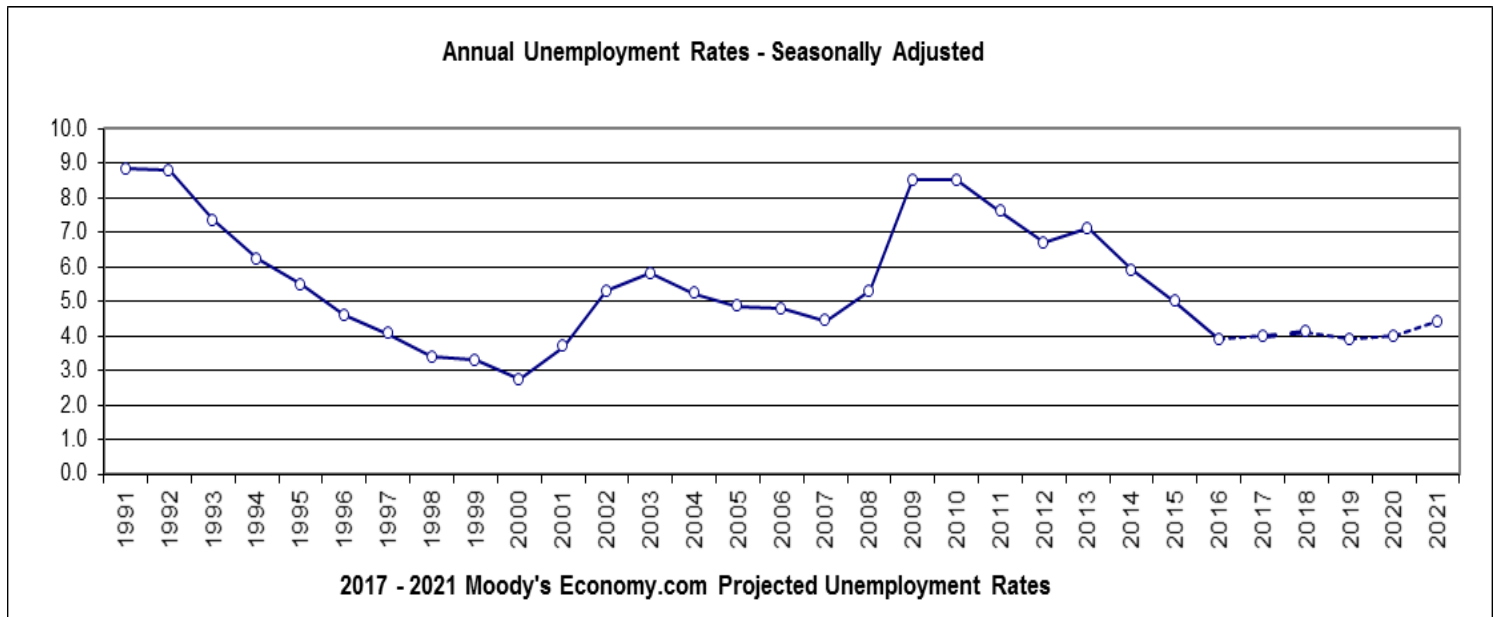
Outlook Report. In 2017, an increase of five-tenths of a percentage point, from 3.5 percent to 4.0 percent, and in 2018, two-tenths of a percentage point increase from 3.9 percent to 4.1 percent. For 2019 to 2021, the annual average unemployment rates showed improvements. In 2019 the rate went from 4.1 percent to 3.9 percent, from 4.4 percent down to 4.0 percent in 2020 and in 2021 from 4.7 percent to 4.4 percent.

The annual labor force projections for 2017 to 2021 showed an average annual increase of 76,200 from the Moody's economy.com projections released in April. The 2017 labor force showed the smallest increase of 59,285. The labor force is projected to be 3,819,389 in 2021.

Table 1: Moody's Economy.com Forecasts, Three Most Recent Reports

	Wage & Salary Growth (%)			Total Unemployment Rate (%)			Labor Force		
	17-Jan	17-Apr	17-Jul	17-Jan	17-Apr	17-Jul	17-Jan	17-Apr	17-Jul
2017	4.6	5.3	3.0	3.3	3.5	4.0	3,630,261	3,638,058	3,697,343
2018	6.1	5.6	5.4	3.7	3.9	4.1	3,671,067	3,679,088	3,756,805
2019	6.5	5.9	5.7	3.8	4.1	3.9	3,698,770	3,710,714	3,788,805
2020	5.1	4.6	4.4	4.2	4.4	4.0	3,712,174	3,725,916	3,804,850
2021	3.4	3.3	3.2	4.7	4.7	4.4	3,720,291	3,732,417	3,819,389

Source: Moody's Economy.com



UNEMPLOYMENT INSURANCE TRUST FUND BALANCE

As of July 31, 2017, the Massachusetts Unemployment Insurance Trust Fund ending balance was \$1.210 billion. The private contributory account balance was at \$1.100 billion and the governmental contributory account balance was \$110 million. The private contributory account balance is \$16 million more than projected.

The private contributory account is projected to have a balance of \$803 million at the end 2017, a reserve of \$780 million in 2018 and a projected balance of \$994 million by the end of 2019.

The 2017 year-end private contributory account balance of \$803 million is \$42 million lower than the previous estimate of \$845 million first published in the May 2017 Outlook Report. The difference in the year-end balance is the result of expected increases in benefit payments. The revised annual average unemployment rate is up five-tenths of a percentage point resulting in additional weeks claimed and weeks compensated. The average weekly benefit amount is projected to be higher than the previous estimate. Year-end reserves as a percent of total wages are expected to be 0.43 percent.

The year-end 2018 account balance is expected to be \$780 million, a \$455 million decrease from the previous estimate of \$1.235 billion due to the lower rate schedule D for employer payrolls as compared to the previous estimate on tax schedule F.

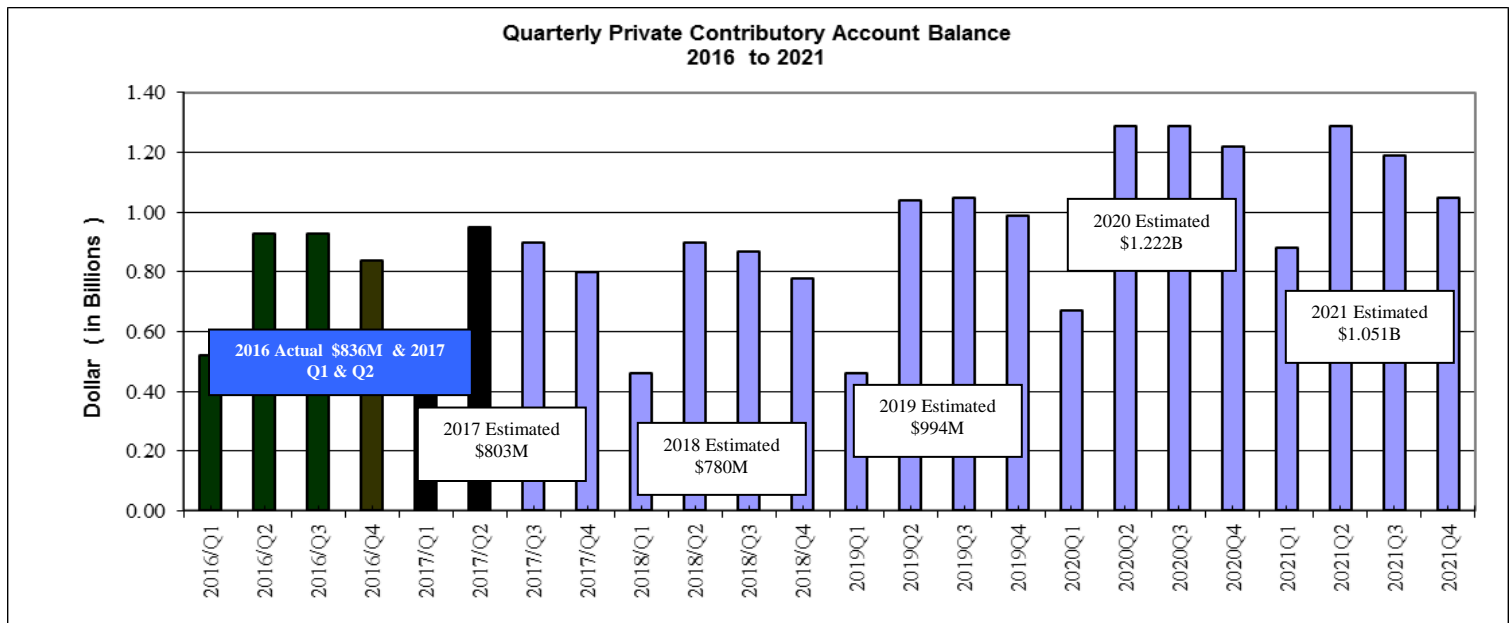
The year-end 2019 account balance is expected to be \$994 million, \$237 million less than the previous estimate of \$1.231 billion.

The year-end 2020 account balance is estimated to be \$1.222 billion, a \$157 million increase from the previously released balance of \$1.065 billion.

The 2021 year-end private contributory account balance estimated at \$1.051 billion, is \$204 million more than the previous estimate of \$847 million.

It is anticipated that no borrowing from the federal unemployment account will be required in the outlook period.

The chart below shows the 2016 through second quarter 2017 actual and projected quarterly private UI Fund balance through 2021.



BENEFIT OUTLAYS

The updated simulation for the outlook period shows an increase in benefit payments in 2017 but decreases in 2018 to 2021.

Benefit payments through July 2017 totaled \$874.0 million, a \$43.5 million increase from the January to July 2016 payment of \$830.5 million but \$23.6 million lower than the projection of \$897.6 million.

Initial claims and weeks compensated through the end of July 2017 were 2.8 percent and 2.4 percent lower than during the same time period last year. The average weekly benefit amount of \$493.68 through the end of July was \$22.67 or 4.8 percent more than the \$471.01 amount in the same period in 2016.

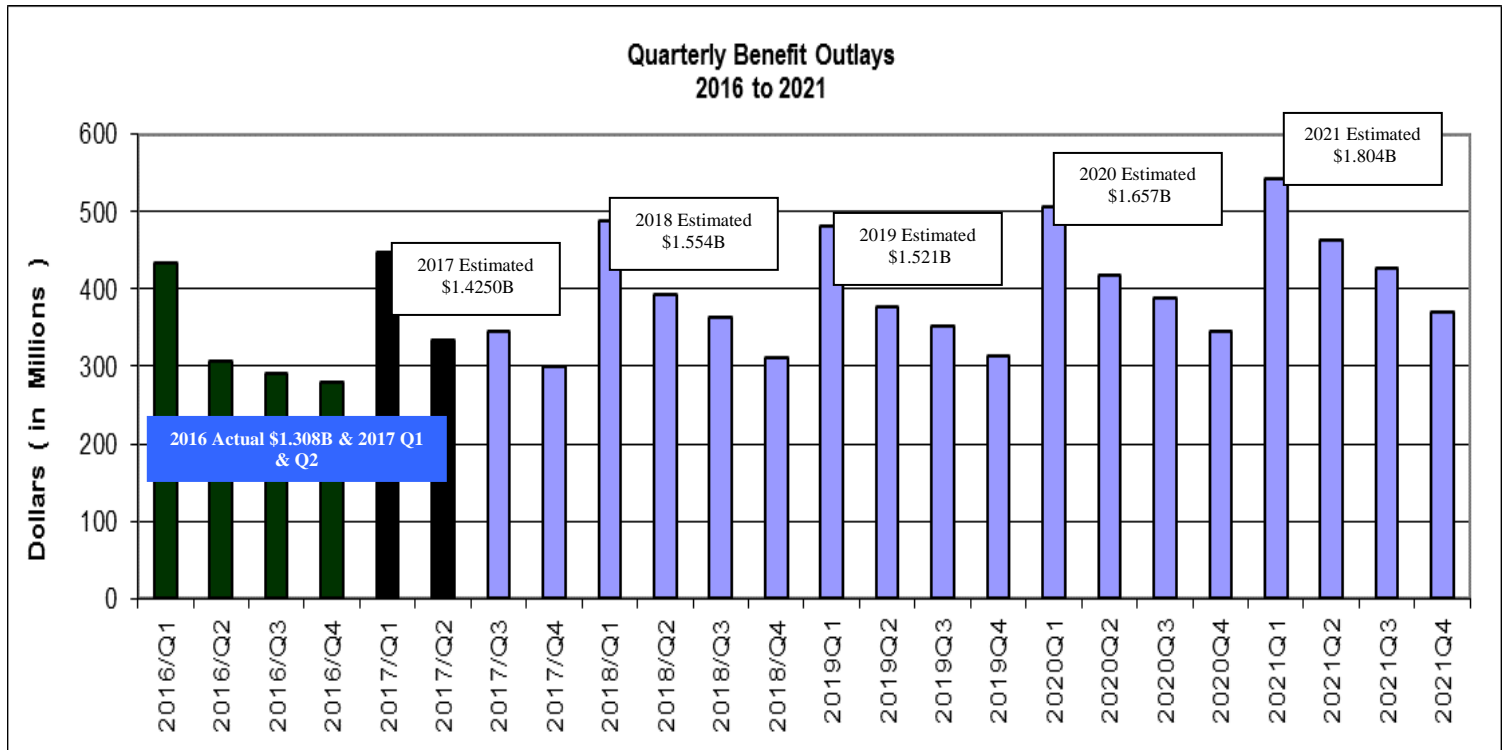
Benefit payments for 2017 are now estimated to be \$1.425 billion, \$55 million more than the previous estimate of \$1.370 billion first released in the May 2017 Outlook Report.

In 2018, benefit payments are projected to be \$1.554 billion, just \$6 million less than expected. Benefits remain in-line with the previous estimate of \$1.560 billion released in the May Outlook Report.

For 2019, benefit payments are projected to be \$1.521 billion, a decrease of \$149 million from the previous estimate of \$1.670 billion.

For 2020, benefit payments are projected to be \$1.657 billion; \$136 million lower than the previous estimate of \$1.793 billion. The reduction in the annual average unemployment rate lowers the weeks claimed and weeks compensated estimates.

In 2021, benefit payments are expected to be \$1.804 billion, \$68 million less than the previous estimate. As in the previous years, the decrease in the unemployment rate reduces the estimates for weeks claimed and weeks compensated.



EMPLOYER CONTRIBUTIONS

Updated projections for employer contributions showed small revisions for all the outlook years.

Employer contributions through the end of July 2017 totaled \$1.129 billion, an increase of \$202.3 million from the January to July 2016 contributions of \$926.7 million but just \$7.6 million less than projected. Employer contributions through the end of July 2016, were lower due to the July 31, 2016 due date falling on a Sunday resulting in a larger share of collections paid in August rather than July.

For 2017 employer contributions on rate schedule, C and a \$15,000 taxable wage base are estimated at \$1.372 billion, \$13 million higher than the previous estimate of \$1.359 billion due to slightly higher than expected taxable wages in the first quarter of 2017.

Rate schedule D was enacted for employer payrolls generating \$1.513 billion in contributions, a decrease of \$411 million from the previous estimate of \$1.924 billion estimated for rate schedule F.

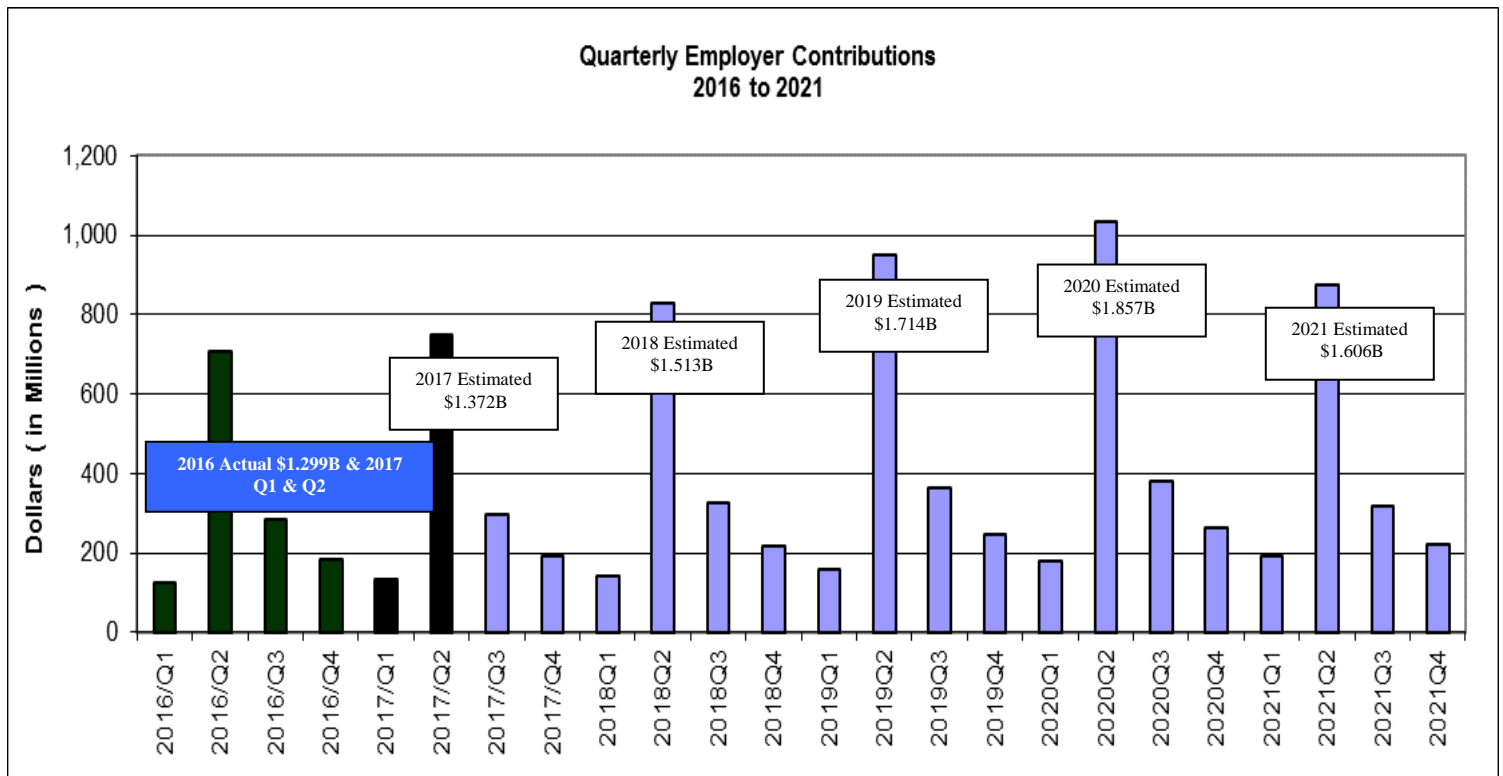
Rate schedule E has been enacted for 2019 payrolls. Employer contributions projected at \$1.714 billion are an increase of \$80 million from the previous estimate of

\$1.634 billion. The increase was due to a higher projected average contribution rate.

Tax rate schedule F is projected to trigger for 2020 payrolls with an estimated employer contribution of \$1.857 billion, an increase of \$256 million from the previous estimate on the lower tax schedule E.

For 2021, tax rate schedule E is projected to trigger for employer payrolls generating \$1.606 billion in contributions, a decrease of \$26 million from the previously released estimate of \$1.632 billion. Both the average contribution rate and taxable payrolls are expected to be lower.

Table 2, on page 7, contains the experience rate table that took effect in 2015.



TRUST FUND SOLVENCY

Federal regulations require States to meet several standards for interest free federal advances taken during the first five months of a calendar year and repaid in the fall. The first measure requires that in at least one of the five years prior to the calendar year the advances are taken, the trust fund reserves must be equal to an average high cost multiple (AHCM) solvency measure. The measure is phased in over five years from a multiple of .50 for 2014, .70 in 2016 up to 1.0 for advances in 2019. For 2017, the AHCM must be met based on 2016 performance.

The Average High Cost Multiple (AHCM) computations are based on the average benefit cost rate for the three highest years in the last twenty or the last three recessions whichever is higher.

Benefit costs are measured as a percent of the total UI wages, the total liability of the UI system, is the second measure. Using this measure indexes the benefit costs to

total wages. The measure is designed to encourage States to build sufficient reserves to finance an economic downturn similar to ones in the past. The Massachusetts measures are for the overall trust fund that includes both the private and governmental contributory accounts. The ratio of the average tax rate and the benefit costs rate over the previous five years must be at least 75 percent.

The chart below arrays the federal requirements, the actual and projected year-end all contributory account AHCMs, the ratios of average tax rate and total wages (federal standard at 80 percent of previous year) and the average tax rate and the benefit cost rate over the preceding five years (federal standard at 75 percent).

If federal advances are necessary in 2017 through 2021, Massachusetts will not meet the federal standard for AHCM and therefore be subject to federal interest for all federal loans.

**Funding Standard for Interest-Free Loans Started in 2014
All Contributory Accounts (Estimated 2017 to 2021)**

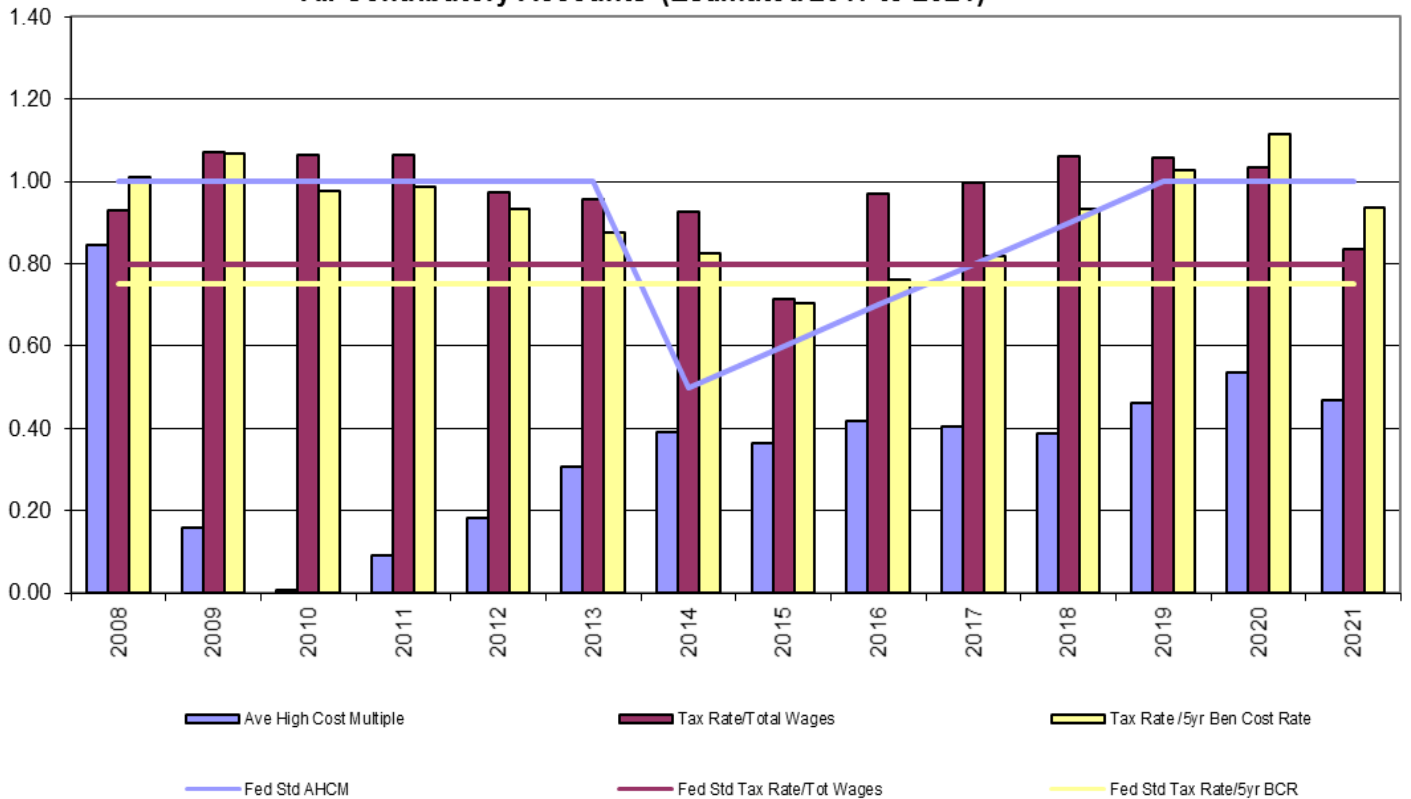


Table 2: Experience Rate Table

Employer Account Reserve Percentages	Unemployment Compensation Fund Reserve Percentage						
	A	B	C	D	E	F	G
	1.65% and over	1.5% or more less than 1.65%	1.2% or more less than 1.5%	0.9% or more less than 1.2%	0.6% or more less than 0.9%	0.3% or more less than 0.6%	less than 0.3%
Negative Percentage	Employer Contribution Rate*						
23 or more	8.62	9.79	11.13	12.65	14.37	16.33	18.55
21.0 but less than 23.0	8.25	9.37	10.65	12.11	13.76	15.63	17.76
19.0 but less than 21.0	7.88	8.96	10.18	11.57	13.15	14.94	16.97
17.0 but less than 19.0	7.52	8.54	9.71	11.03	12.53	14.24	16.18
15.0 but less than 17.0	7.15	8.13	9.24	10.49	11.93	13.55	15.39
13.0 but less than 15.0	6.78	7.71	8.76	9.95	11.31	12.85	14.60
11.0 but less than 13.0	6.42	7.29	8.29	9.42	10.70	12.16	13.81
9.0 but less than 11.0	6.05	6.87	7.81	8.88	10.09	11.46	13.02
7.0 but less than 9.0	5.68	6.46	7.34	8.34	9.48	10.77	12.23
5.0 but less than 7.0	5.32	6.04	6.86	7.80	8.86	10.07	11.44
3.0 but less than 5.0	4.95	5.63	6.39	7.27	8.26	9.38	10.66
1.0 but less than 3.0	4.58	5.21	5.92	6.72	7.64	8.68	9.86
0.0 but less than 1.0	4.22	4.79	5.45	6.19	7.03	7.99	9.08
Positive Percentage							
0.0 but less than 0.5	3.14	3.57	4.06	4.61	5.24	5.96	6.77
0.5 but less than 1.0	3.06	3.48	3.96	4.50	5.11	5.81	6.60
1.0 but less than 1.5	2.98	3.39	3.85	4.38	4.98	5.65	6.43
1.5 but less than 2.0	2.90	3.30	3.75	4.26	4.84	5.50	6.25
2.0 but less than 2.5	2.82	3.21	3.65	4.14	4.71	5.35	6.08
2.5 but less than 3.0	2.75	3.12	3.54	4.02	4.57	5.20	5.90
3.0 but less than 3.5	2.67	3.03	3.44	3.91	4.44	5.05	5.74
3.5 but less than 4.0	2.58	2.93	3.33	3.79	4.30	4.89	5.56
4.0 but less than 4.5	2.50	2.84	3.23	3.67	4.17	4.74	5.38
4.5 but less than 5.0	2.42	2.75	3.13	3.55	4.04	4.59	5.21
5.0 but less than 5.5	2.34	2.66	3.02	3.43	3.90	4.43	5.04
5.5 but less than 6.0	2.25	2.56	2.91	3.31	3.76	4.28	4.86
6.0 but less than 6.5	2.17	2.47	2.81	3.20	3.63	4.13	4.69
6.5 but less than 7.0	2.09	2.38	2.71	3.08	3.50	3.97	4.51
7.0 but less than 7.5	2.02	2.30	2.61	2.96	3.37	3.82	4.35
7.5 but less than 8.0	1.94	2.20	2.50	2.84	3.23	3.67	4.17
8.0 but less than 8.5	1.85	2.10	2.39	2.72	3.09	3.51	3.99
8.5 but less than 9.0	1.78	2.02	2.29	2.61	2.96	3.37	3.82
9.0 but less than 9.5	1.70	1.93	2.19	2.49	2.82	3.21	3.65
9.5 but less than 10.0	1.61	1.83	2.08	2.36	2.69	3.05	3.47
10.0 but less than 10.5	1.53	1.74	1.98	2.25	2.56	2.91	3.30
10.5 but less than 11.0	1.45	1.65	1.87	2.13	2.42	2.75	3.12
11.0 but less than 11.5	1.37	1.56	1.77	2.01	2.29	2.60	2.96
11.5 but less than 12.0	1.29	1.47	1.67	1.89	2.15	2.45	2.78
12.0 but less than 12.5	1.21	1.37	1.56	1.77	2.01	2.29	2.60
12.5 but less than 13.0	1.13	1.28	1.46	1.66	1.89	2.14	2.43
13.0 but less than 13.5	1.05	1.19	1.35	1.54	1.75	1.99	2.26
13.5 but less than 14.0	0.97	1.10	1.25	1.42	1.61	1.83	2.08
14.0 but less than 15.0	0.81	0.92	1.04	1.18	1.34	1.53	1.73
15.0 but less than 16.0	0.73	0.83	0.94	1.07	1.21	1.38	1.57
16.0 but less than 17.0	0.64	0.73	0.83	0.95	1.08	1.22	1.39
17.0 or more	0.56	0.64	0.73	0.83	0.94	1.07	1.21

Employer Contribution Rate is applied to the first \$15,000 of wages per employee.

The current law simulation estimates for 2017 through 2021 are displayed in Tables 3 and 4, below.

Table 3: Unemployment Trust Fund Projections for the Private Contributory Account, 2017 - 2021

(All \$ in Millions except Average Cost/Employee)

	2016	2017	2018	2019	2020	2021
Balance, January 1	\$827	\$836	\$803	\$780	\$994	\$1,222
Income	\$1,299	\$1,372	\$1,513	\$1,714	\$1,857	\$1,606
Trust Fund Interest	\$19	\$20	\$18	\$22	\$28	\$27
Benefit Outlays	\$1,308	\$1,425	\$1,554	\$1,521	\$1,657	\$1,804
Federal Loan Interests						
Balance, December 31	\$836	\$803	\$780	\$994	\$1,222	\$1,051
Schedule*	"C"	"C"	"D"	"E"	"F"	"E"
Average Cost/Employee	\$484	\$508	\$556	\$624	\$674	\$581

* 2016 to 2019 rate schedules set by Legislation, 2020 to 2021 rate schedule projected based on current statutory triggers, calculated with the previous three years average total wages. Taxable Wage Base of \$15,000 effective beginning 2015.

Source: Massachusetts Department of Unemployment Assistance benefit financing simulation

Figures may not add up due to rounding.

Table 4: Benefit Financing Simulation Output

	2016	2017	2018	2019	2020	2021
Total Covered Payroll (\$Billions)	\$177.3	\$188.1	\$194.6	\$207.8	\$217.7	\$225.4
Contributory Payroll (\$Billions)	\$42.2	\$43.9	\$43.2	\$44.0	\$44.4	\$44.5
Contributory Wage Proportion	23.8%	23.3%	22.2%	21.2%	20.4%	19.7%
Nominal Contribution Rate	3.1%	3.1%	3.5%	3.9%	4.2%	3.5%
Contributions as % of Total Payroll	0.73%	0.73%	0.78%	0.82%	0.85%	0.71%
Benefits as a % of Total Payroll	0.74%	0.76%	0.80%	0.73%	0.76%	0.80%
Trust Fund Balance as % of Total Payroll	0.47%	0.43%	0.40%	0.48%	0.56%	0.47%
Solvency Assessment	0.81%	0.73%	1.01%	0.96%	1.00%	1.09%
AHCM	0.27	0.25	0.23	0.28	0.33	0.27
Covered Employment (Thousands)	3,438	3,456	3,485	3,518	3,529	3,538
Total Unemployment Rate	3.9%	4.0%	4.1%	3.9%	4.0%	4.4%
Insured Unemployment Rate	2.0%	2.3%	2.3%	2.2%	2.3%	2.4%

Source: Economic assumptions are based on Moody's Economy.com forecasts and Massachusetts benefit financing simulation.

Figures may not add up due to rounding.

APPENDIX UNEMPLOYMENT INSURANCE DEFINITIONS

AVERAGE HIGH COST RATE:

The average of the three highest calendar benefit cost rates in the last 20 years (or a period including three recessions, if longer). The benefit cost rates private UI contributory employers benefits paid (including the state's share of extended benefits when applicable) as a percent of their total wages.

AVERAGE HIGH COST MULTIPLE (AHCM):

The ratio of the year-end trust fund balance as a percent of total wages divided by the Average High Cost Rate.

BENEFITS PAID:

The unemployment insurance benefits paid to individuals funded through the state program. This includes all weeks compensated including partial payments.

CIVILIAN LABOR FORCE:

The estimated average number of Massachusetts residents who are either employed or unemployed in the week of the 12th for the three months of the quarter.

COVERED EMPLOYMENT:

The number of employees covered by Unemployment Insurance reported to the state by employers. The numbers represent the count of all employees for the payroll period that includes the 12th of the month.

HIGH-COST MULTIPLE (HCM):

The ratio of the Trust Fund balance as a percent of total wages divided by the High Cost Rate. The High Cost Rate is the highest historical ratio of benefits paid to total wages for a 12-month period.

INITIAL CLAIMS:

Any notice of unemployment filed by an individual (1) to request a new determination of entitlement to and eligibility for unemployment compensation or (2) to begin a second or subsequent period of eligibility within a benefit year or period of eligibility following an additional separation from employment.

INSURED UNEMPLOYED:

The average number of weeks claimed for the three months of the quarter.

INSURED UNEMPLOYMENT RATE (IUR):

The rate computed by dividing Insured Unemployed for the current quarter by the average Covered Employment for the first four of the last six completed quarters.

OUTSTANDING LOAN BALANCES:

Balance, as of the end of the quarter, of advances acquired by the state under Title XII of the Social Security Act which allows states to use repayable advances from the federal UI account.

SOLVENCY ASSESSMENT:

The annual factor assessed to employer taxable payrolls to cover the net balance of charges and credits not directly assigned to individual employers.

TAXABLE WAGES:

Wages paid to covered employees that are subject to State Unemployment Insurance taxes. For Massachusetts, the first \$15,000 in wages per employee is covered by UI,

TAXABLE WAGE BASE:

For each State, the maximum amount of wages paid to an employee by an employer during a year in which their employment is subject to UI taxes. Wages above this amount are not subject to UI tax.

TOTAL UNEMPLOYED:

The estimated average number of residents, 16 years of age or older, who do not have a job but are available for work

and actively seeking work in the week of the 12th for the three months of the quarter. This includes individuals on layoff and waiting to report to a new job within 30 days.

TOTAL UNEMPLOYMENT RATE (TUR):

The rate computed by dividing Total Unemployed by the Civilian Labor Force.

TOTAL WAGES:

All wages or remuneration paid to workers on all payrolls covered by Unemployment Insurance.

TRUST FUND BALANCE (TF):

The balance in the individual state account in the Unemployment Trust Fund. Outlook estimates are for the private contributory account within the Trust Fund.

TRUST FUND AS % OF TAXABLE WAGES:

Year-end Trust Fund Balance as a percent of estimated taxable wages for the most recent 12 months; also referred to as the Reserve Ratio. Estimated wages are based on the latest growth rate in the 12 month moving average (MA).

UNEMPLOYMENT TRUST FUND (UTF):

A fund established in the Treasury of United States which contains all monies deposited by state agencies to the credit of their unemployment fund accounts.

WEEKS CLAIMED:

The number of weeks claimed for UI benefits, including weeks for which a waiting period or fixed disqualification period is being served. Interstate claims are counted in the state of residence.

WEEKS COMPENSATED:

The number of weeks claimed for which UI benefits are paid. Weeks compensated for partial unemployment are included. Interstate claims are counted in the paying state.