Trust Fund Adequacy
&
Solvency Measures

UI Benefit Financing Seminar
Division of Fiscal and Actuarial Services
U.S. DOL/ETA/OUI
October 23-26, 2018

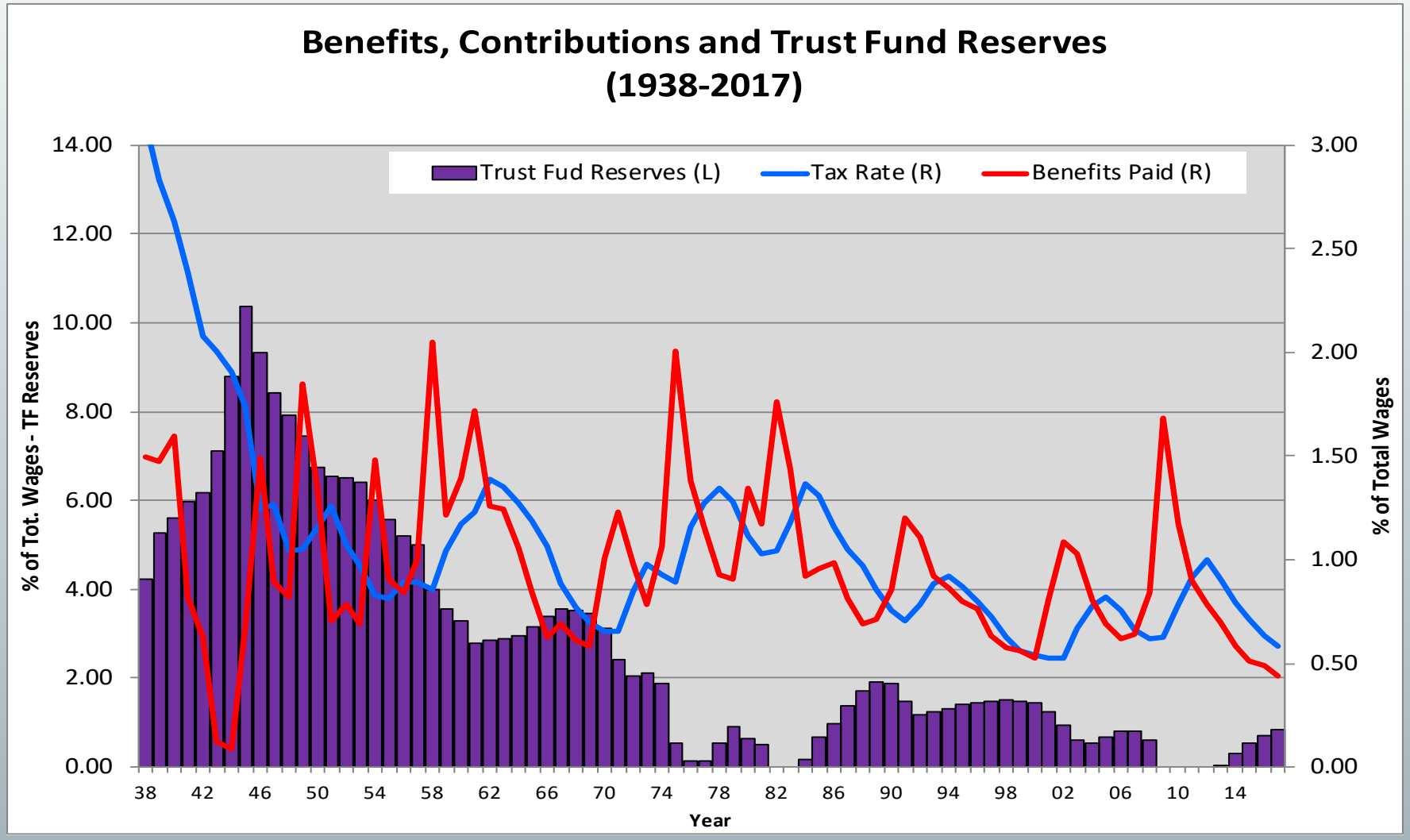
TRUST FUND ADEQUACY

- What is Trust Fund Adequacy?
- Why is Trust Fund Adequacy Important?
- How to Measure Trust Fund Adequacy

TRUST FUND ADEQUACY

- A trust fund account balance at the start of a recession, which, taking into account tax system features and likely future outlays, provides an acceptable risk of borrowing.

Forward Funding Unemployment Insurance Benefits



Methods of Financing Recession Outlays

- Hold Large Trust Fund Balance
- Increase Taxes and/or Cut Benefits During Recessions
- Borrow Funds During Recessions

Consequences of Forward Funding Strategies

Holding a Large Balance

- Opportunity cost
- Pressure to divert funds to other uses
- Pressure to expand benefits

Flexible Financing

- Reduce automatic stabilization impact

Borrowing

- Interest paid from added tax
- Pressure to Raise Taxes and cut benefits

TRUST FUND ADEQUACY MEASURES

- Dollar Amount
- Months of Benefits
- Reserve Ratio
- Total Unemployment Rate for Insolvency
- Reserve Multiple

TRUST FUND ADEQUACY MEASUREMENT

- Desirable features
  - Link to potential liability
  - Relation to past experience
  - Incorporates future projections

Dollar Amount as Trust Fund Adequacy Measure

STATE	Trust Fund Balance as of 1/1/2018
ALASKA	454,832,414
ALABAMA	560,163,698
ARKANSAS	641,543,173
ARIZONA	574,039,805
CALIFORNIA	11,714,728
COLORADO	792,102,726
CONNECTICUT	449,127,325
DISTRICT OF COLUMBIA	434,081,766
DELAWARE	129,262,216
FLORIDA	3,626,299,521
GEORGIA	1,814,994,210
HAWAII	520,364,894
IOWA	1,118,225,591
IDAHO	584,760,858
ILLINOIS	1,598,621,738
INDIANA	381,758,863
KANSAS	642,939,852
KENTUCKY	433,218,118
LOUISIANA	909,569,433
MASSACHUSETTS	998,795,673
MARYLAND	1,116,818,866
MAINE	426,024,306
MICHIGAN	3,646,237,283
MINNESOTA	1,598,372,750
MISSOURI	826,486,941
MISSISSIPPI	655,645,503
MONTANA	314,978,838
NORTH CAROLINA	3,172,224,039
NORTH DAKOTA	145,798,828
NEBRASKA	425,098,270
NEW HAMPSHIRE	297,804,241
NEW JERSEY	2,212,907,518
NEW MEXICO	431,323,224
NEVADA	1,059,507,443
NEW YORK	1,924,720,579
OHIO	629,433,068
OKLAHOMA	1,008,585,207
OREGON	3,942,775,718
PENNSYLVANIA	2,083,618,855
PUERTO RICO	537,269,059
RHODE ISLAND	360,916,841
SOUTH CAROLINA	734,895,259
SOUTH DAKOTA	121,235,469
TENNESSEE	1,096,250,606
TEXAS	924,347,603
UTAH	1,077,211,363
VIRGINIA	1,148,066,322
VIRGIN ISLANDS	372,688
VERMONT	389,954,455
WASHINGTON	4,374,067,086
WISCONSIN	1,479,554,224
WEST VIRGINIA	83,881,611
WYOMING	304,237,595

Dollar Amount has no relation to potential liability or past experience

Months of Benefits as Trust Fund Adequacy Measure

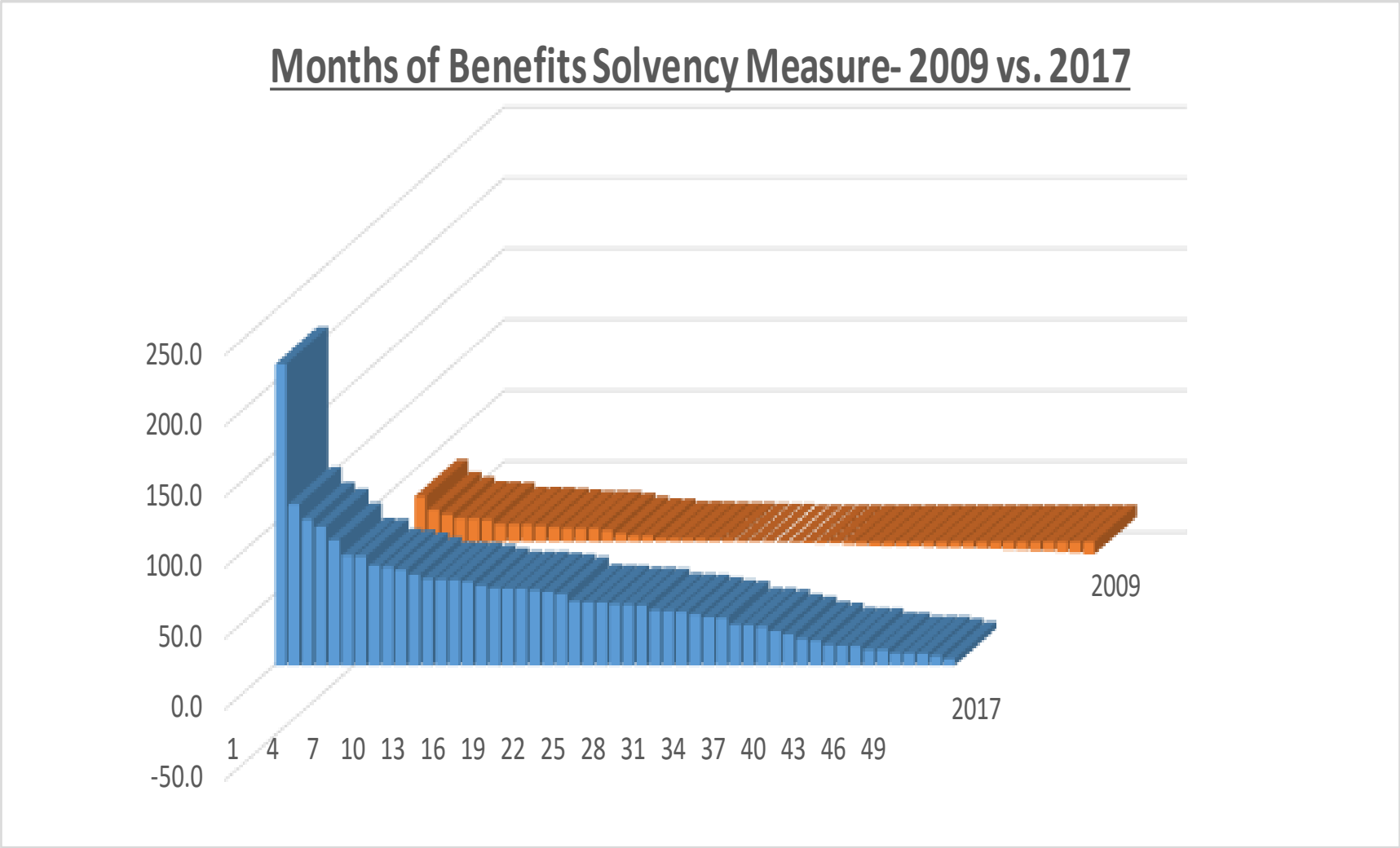
$$\text{Months of Benefits} = \frac{\text{Trust Fund Balance}}{\text{Average Monthly Benefit Payment (last 12 Months)}}$$

- Not linked to Potential Liability
- Relates to Most Recent Experience Only
- Gives False Sense of Security at Peak of Business Cycle

As of 12/31/2017

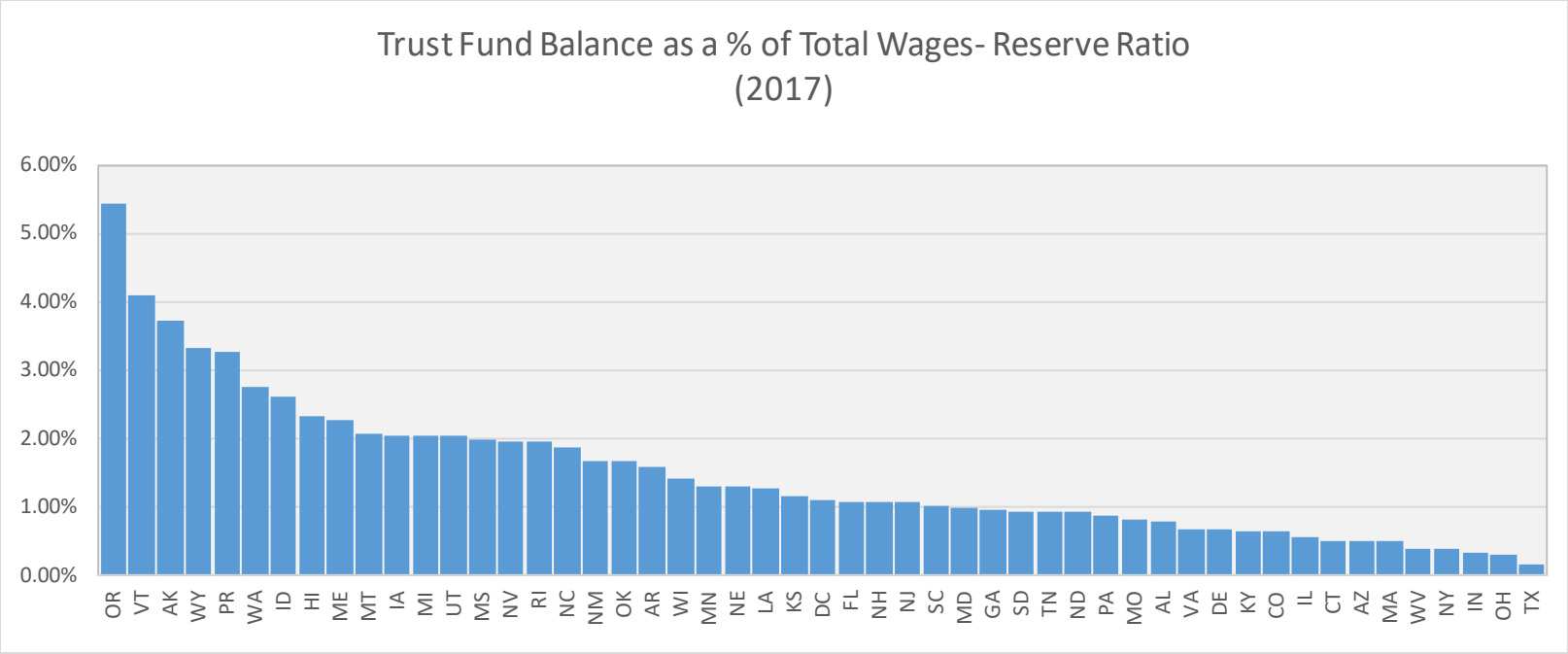
State	Months
NC	212.8
FL	114.1
MS	103.3
OR	98.3
UT	88.7
OH	8.9
MA	8.8
CT	8.6
WV	7.1
TX	4.9

Months of Benefits Solvency Measure



RESERVE RATIO

$$\text{Reserve Ratio} = \frac{\text{Fund Balance}}{\text{Total Covered Wages}}$$



- Linked to Covered Wages (Liability)
- Not linked to past cost experience

RESERVE MULTIPLE

$$\text{Reserve Multiple} = \frac{\text{Reserve Ratio}}{\text{Cost Rate}}$$

$$\left[\text{Cost Rate} = \frac{\text{Benefits During a Year}}{\text{Total Cov. Wages Same Year}}\right]$$

- Accounts for wage growth
- Accounts for benefit cost experience

Alternative Reserve Multiple Measures

- Highest Cost Year Historically
- Second-Highest Cost Year
- Highest Recent Year
- Highest 3-Year Average Recent/Historically
- Average Cost Recent/Historically

Average High Cost Multiple

$$\text{AHCM} = \frac{\text{Reserve Ratio}}{\text{Average High Cost Rate}}$$

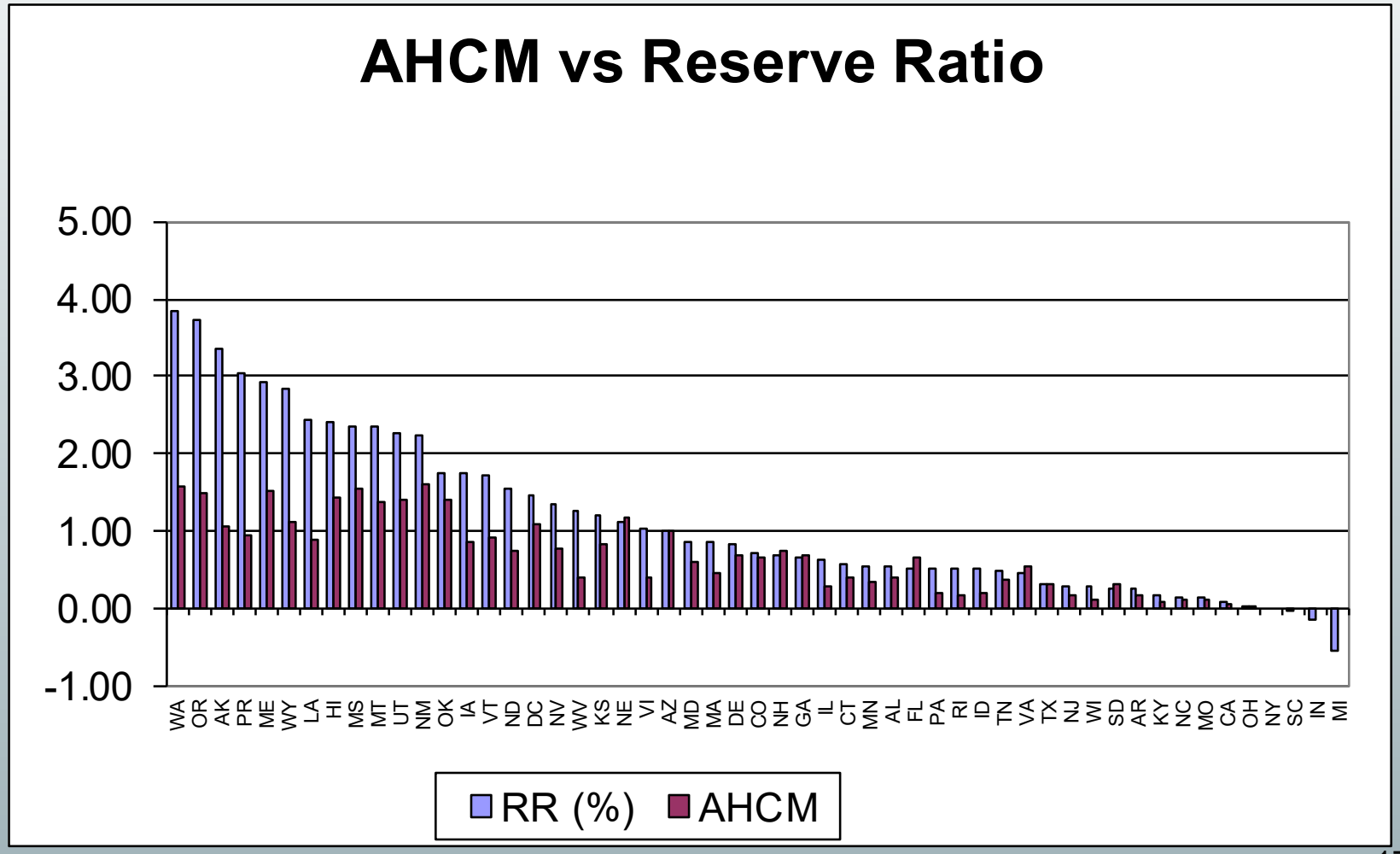
Average of 3 highest yrs over the last 20 yrs, or last 3 recessions, whichever is longer

The AHCM represents the number of years current reserve in a state's trust fund (not counting incoming revenues) can pay out benefits at historically high payout rate (defined as the average payout rate of the three highest cost years over the previous 20 year-period, or over a period covering the last 3 recessions, whichever is longer).

AVERAGE HIGH COST MULTIPLE

- Linked to potential liability
- Relates to prior high cost experience
- Static measure of dynamic system
- Does not incorporate projections

AHCM vs RESERVE RATIO



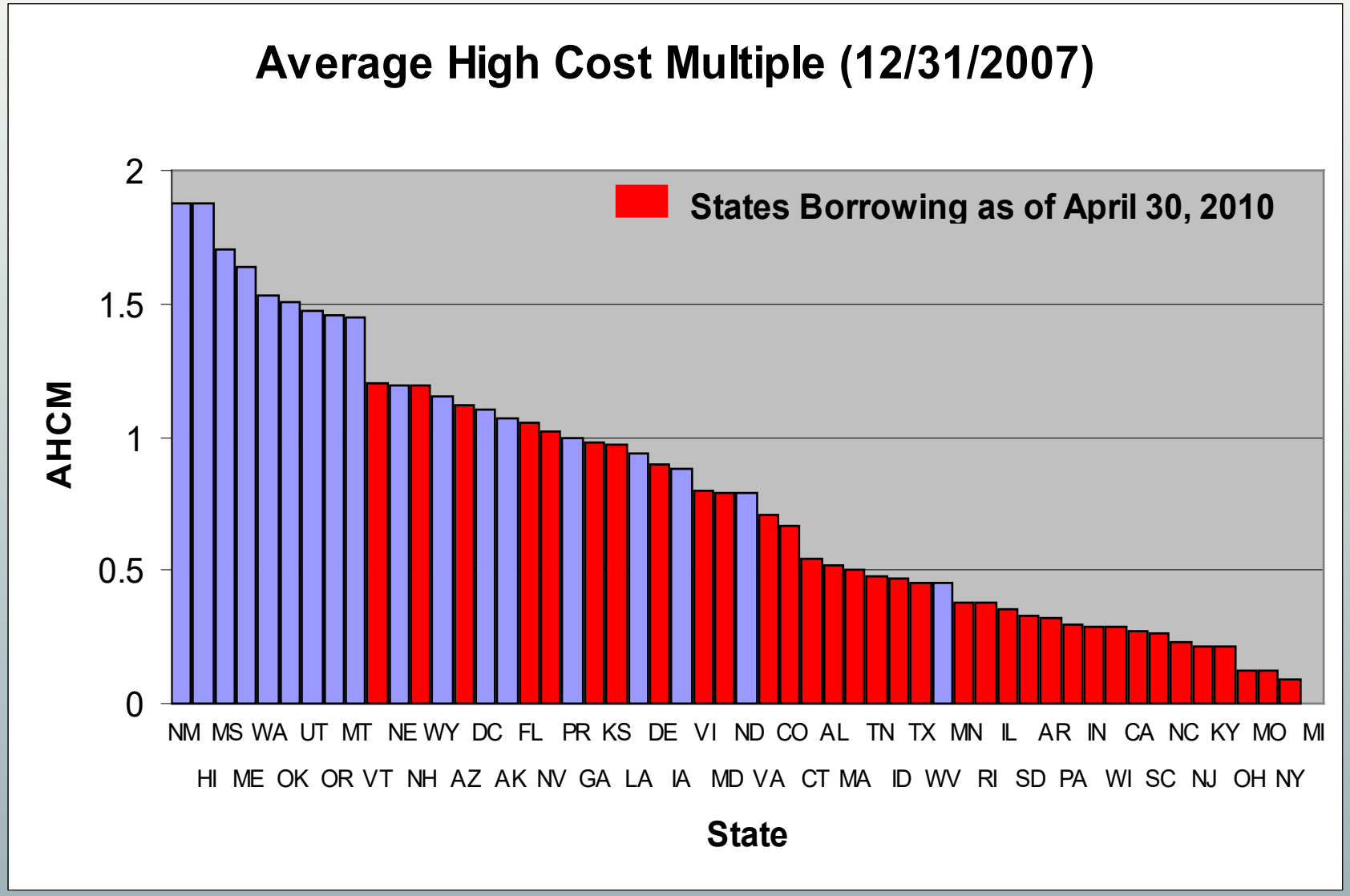
CY 2008 Data

AHCM vs Months of Benefits

- Both measure how long current reserve can pay out benefits
- MOB – Linked to most recent cost experience
- AHCM – Linked to historically high cost experience (recessions)

CY 2008 Data

Solvency Level Before Recession



Average High Cost Multiple vs. Borrowing

Average High Cost Multiple		>= 2.0	1.75-1.99	1.50-1.74	1.25-1.49	1.00-1.24	0.75-0.99	0.50-0.74	<0.50	TOTAL
1974-1976	# of States	12	7	5	6	5	6	6	4	51
	# of Loans	0	2	2	2	3	6	6	4	25
	% of Loans	0%	29%	40%	33%	60%	100%	100%	100%	49%
1980-1984*	# of States	2	0	5	7	10	5	6	16	51
	# of Loans	0	0	1	2	6	3	6	15	33
	% of Loans	0%	0%	20%	25%	60%	60%	100%	94%	65%
1990-1992	# of States	2	4	7	9	10	8	7	5	52
	# of Loans	0	0	0	0	0	1	2	3	6
	% of Loans	0%	0%	0%	0%	0%	13%	29%	60%	12%
2001-2004	# of States	5	2	5	8	10	12	7	4	53
	# of Loans	0	0	0	0	1	2	2	3	8
	% of Loans	0%	0%	0%	0%	10%	17%	29%	75%	15%
2008-2010	# of States	0	2	4	3	10	8	5	21	53
	# of Loans	0	1	0	0	5	5	5	20	36
	% of Loans	0%	50%	0%	0%	50%	63%	100%	95%	68%

Note: Pre-recession average high cost multiples are calculated for December 1973, December 1979, December 1989, December 2000, and December 2007.

*This Period includes both recessions of 1980 and 1981-82

Average High Cost Multiple vs. Borrowing

Average High Cost Multiple		>= 1.0	<1.0
1974-1976	# of States	37	15
	# of Loans	8	13
	% of Loans	**22%**	**87%**
1980-1984*	# of States	26	27
	# of Loans	9	24
	% of Loans	**35%**	**89%**
1990-1992	# of States	33	20
	# of Loans	0	6
	% of Loans	**0%**	**30%**
2001-2003	# of States	28	25
	# of Loans	1	7
	% of Loans	**4%**	**28%**
2007-2011	# of States	22	34
	# of Loans	6	30
	% of Loans	**27%**	**88%**

Note: Pre-recession average high cost multiples are calculated for December 1973, December 1979, December 1989, December 2000, and December 2006.

*This Period includes both recessions of 1980 and 1981-82

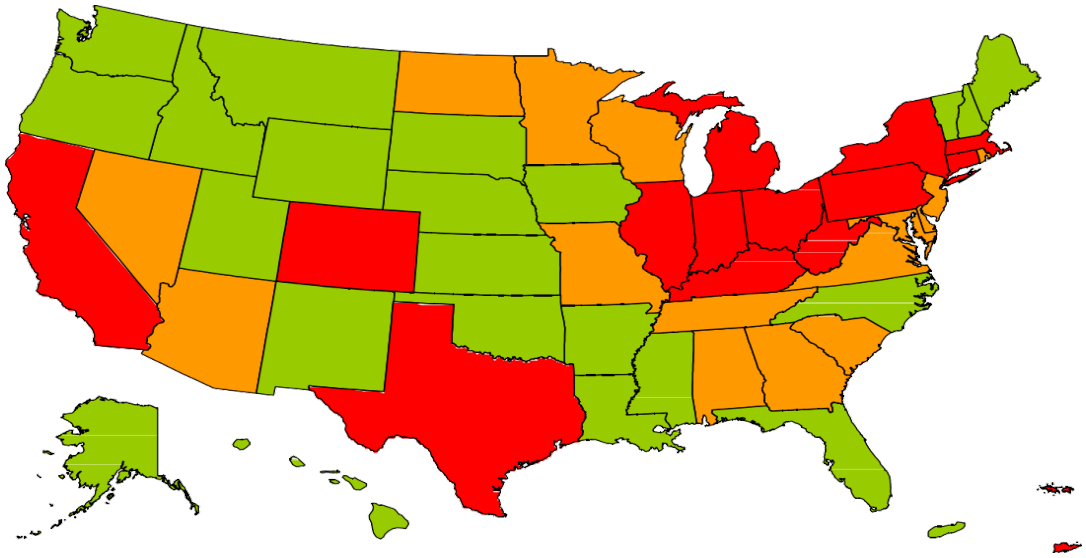
Additional Solvency Measures

Maximum Unemployment Rate For Solvency: Highest Total Unemployment Rate under which the Trust fund will remain solvent one year out.

- Takes into account the near-term tax response
- Requires forecasting revenue and relationships between TUR and IUR and Weeks Claimed to Weeks Compensated

Simulation Modeling: Modeling entire UI program; captures system dynamics, assess level of risk and impact of law changes.

STATE UNEMPLOYMENT INSURANCE
TRUST FUND SOLVENCY REPORT
2018



U.S. Department of Labor
Office of Unemployment Insurance
Division of Fiscal and Actuarial Services

February 2018

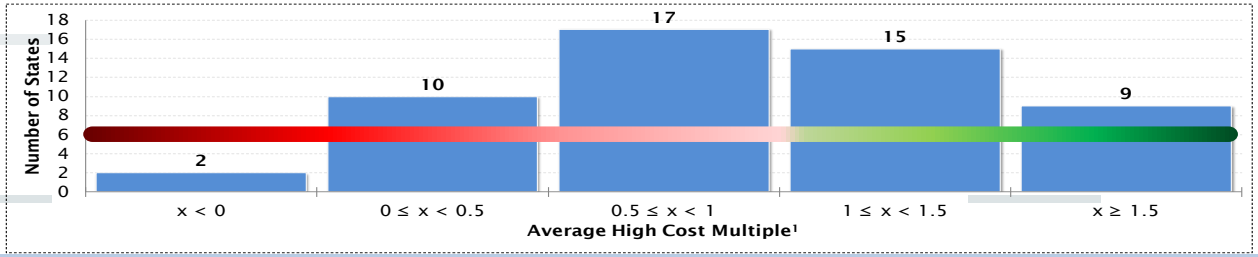
View this report online at:
https://oui.doleta.gov/unemploy/solvency.asp

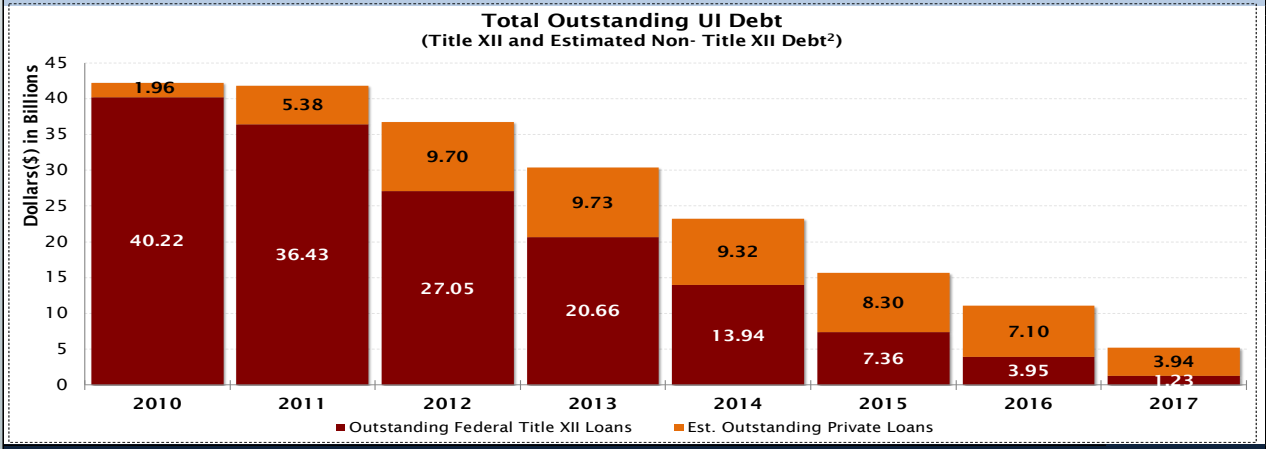
UNITED STATES

Trust Fund Status

1) 2017 Year End Aggregate State Trust Fund Balances:	$55,227,038,259	2) Aggregate Interest Earned for 2017:	$1,164,351,296
3) 2017 Year End Outstanding Title XII Advances:	$1,232,312,368	4) Title XII Interest Owed for FY2017:	$51,245,889
		4b) Total Interest Paid since Jan 2008:	$3,898,263,588
5) Total Title XII Advances since 12/31/2007:	$152,299,322,848	6) Total Max. Amt. of Outstanding Advances:	$47,200,150,556
7) Title XII Advances Per Cov. Employee:	$10.73	8) Date of Maximum Outstanding Amount:	2/28/2011
9) Title XII Advances as % of Cov. Wages:	0.019%	10) Total Non Title XII Debt Issued Since 2010:	$11,445,420,000
		11) Est. Amt. of Non- Title XII Debt Outstanding[1]	$3,941,345,000

State Trust Fund Solvency





Calculations of Federal Borrowing Statutes and FUTA Credit Reductions

Eligibility for Interest Free Borrowing in 2018

12) Number of States Eligible for Interest Free Borrowing in 2018[3]:	31

FUTA Credit Reductions

13)	Number of States with Credit Reduction Due to Outstanding Loans	Number of States with 2.7% Add- on	Number of States with BCR Add- on
2016	2	0	0
2017	2	0	0
Potential 2018[4]	2	0	1

1. Average High Cost Multiple (AHCM) value- uses actual trust fund balances as of 12/31/2017 and estimated wages for CY2017. This measure compares the state trust fund level to the average of the three highest years of benefit payments.
2. Non- Title XII Advances includes all private market Revenue Bonds and loans.
3. States that have met the interest free borrowing conditions of an AHCM of 0.9 in last five years and tax maintainence criteria.
4. Credit reductions apply only to states with outstanding loans as of January 1, 2018, and those not repaying their loan as of November 10, 2018.

GEORGIA

State Trust Fund Status

1) UI Trust Fund Balance as of 1/1/2018:	$1,814,994,210	2) Interest Earned for 2017:	$36,943,726
3) Outstanding Title XII Advance as of 1/1/2018:	$0	4) Title XII Interest Owed for FY2017:	$0
5) Total Title XII Advances Since 12/31/2007:	$956,389,307	6) Max. Amount of Outstanding Advances:	$760,781,100
7) Title XII Advances Per Cov. Employee:	$0.00	8) Date of Maximum Outstanding Amount:	3/31/2012
9) Title XII Advances as % of Cov. Wages:	0.00%	10) Non Title XII Debt Issued Since 2010:	$0
		11) Est. Amt. of Non- Title XII Debt Outstanding[1]:	$0

State Trust Fund Solvency

12) Trust Fund Balance Compared to Yearly Benefit Costs

13) Solvency Level - Using Average High Cost Multiple[2]

Calculations of Federal Borrowing Statutes and FUTA Credit Reductions

Eligibility for Interest Free Borrowing in 2018

14) Last year in which State achieved a 0.9 Avg. High Cost Multiple[3]:	2017
15) Lowest Percentage Avg. Tax rate is of the Previous 5 yr. Ben Cost Rate (> 75% elig. Req.)	N/A*
16) Lowest Percentage Avg. Tax Rate is of the Previous Avg. Year's Tax Rate (> 80% elig. Req.)	N/A*
	Eligible

FUTA Tax Rate

17)	Credit Reduction Due to Outstanding Loans	2.7% Add- on	BCR Add- on	Total Credit Reduction	FUTA Tax Rate[4]
2016	0.0%	0.0%	0.0%	0.00%	0.6%
2017	0.0%	0.0%	0.0%	0.00%	0.6%
Potential 2018[5]	0.0%	0.0%	0.0%	0.00%	0.6%

1. Estimated from original Bond issue information from: http://emma.msrb.org/
2. Average High Cost Multiple (AHCM) value- uses actual trust fund balances as of 12/31/2017 and estimated wages for CY2017. This measure compares the state trust fund balance to the average of the three highest years of benefit payments.
3. Must occur in the last 5 years to be eligible for an interest free loan.
4. Represents the difference between total FUTA credit (with any reductions) and the FUTA tax rate of 6.0%.
5. Credit reductions apply only to states with outstanding loans as of January 1, 2018, and not repaid by November 10, 2018.

* Not Applicable

TABLE 1

SUMMARY OF STATE ELIGIBILITY FOR INTEREST FREE ADVANCE

States Meeting Eligibility For Interest Free Advances		States Not Meeting Eligibility For Interest Free Advances	
1	ALASKA	1	ALABAMA
2	ARKANSAS	2	ARIZONA
3	DISTRICT OF COLUMBIA	3	CALIFORNIA
4	FLORIDA	4	COLORADO
5	GEORGIA	5	CONNECTICUT
6	HAWAII	6	DELAWARE
7	IOWA	7	ILLINOIS
8	IDAHO	8	INDIANA
9	KANSAS	9	KENTUCKY
10	LOUISIANA	10	MASSACHUSETTS
11	MAINE	11	MARYLAND
12	MICHIGAN	12	MISSOURI
13	MINNESOTA	13	NEW JERSEY
14	MISSISSIPPI	14	NEW YORK
15	MONTANA	15	OHIO
16	NORTH CAROLINA	16	PENNSYLVANIA
17	NORTH DAKOTA	17	RHODE ISLAND
18	NEBRASKA	18	SOUTH CAROLINA
19	NEW HAMPSHIRE	19	TEXAS
20	NEW MEXICO	20	VIRGIN ISLANDS
21	NEVADA	21	WISCONSIN
22	OKLAHOMA	22	WEST VIRGINIA
23	OREGON		
24	PUERTO RICO		
25	SOUTH DAKOTA		
26	TENNESSEE		
27	UTAH		
28	VIRGINIA		
29	VERMONT		
30	WASHINGTON		
31	WYOMING		

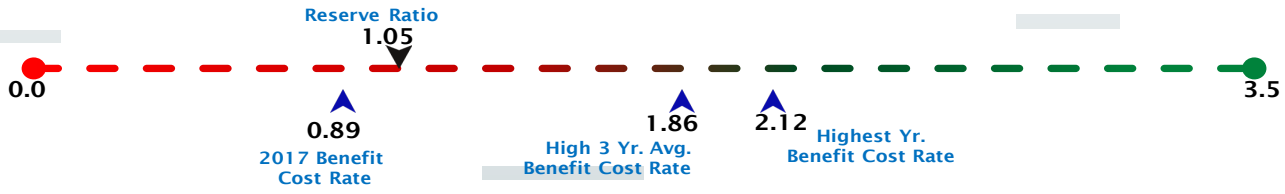
NEW JERSEY

State Trust Fund Status

1) UI Trust Fund Balance as of 1/1/2018:	$2,212,907,518	2) Interest Earned for 2017:	$46,771,318
3) Outstanding Title XII Advance as of 1/1/2018:	$0	4) Title XII Interest Owed for FY2017:	$0
5) Total Title XII Advances Since 12/31/2007:	$9,835,363,525	6) Max. Amount of Outstanding Advances:	$2,054,066,515
7) Title XII Advances Per Cov. Employee:	$0.00	8) Date of Maximum Outstanding Amount:	3/31/2011
9) Title XII Advances as % of Cov. Wages:	0.00%	10) Non Title XII Debt Issued Since 2010:	$0
		11) Est. Amt. of Non- Title XII Debt Outstanding[1]:	$0

State Trust Fund Solvency

12) Trust Fund Balance Compared to Yearly Benefit Costs



13) Solvency Level - Using Average High Cost Multiple[2]

Calculations of Federal Borrowing Statutes and FUTA Credit Reductions

Eligibility for Interest Free Borrowing in 2018

14) Last year in which State achieved a 0.9 Avg. High Cost Multiple[3]:	2001
15) Lowest Percentage Avg. Tax rate is of the Previous 5 yr. Ben Cost Rate (> 75% elig. Req.)	92%
16) Lowest Percentage Avg. Tax Rate is of the Previous Avg. Year's Tax Rate (> 80% elig. Req.)	80%
	Ineligible

FUTA Tax Rate

17)	Credit Reduction Due to Outstanding Loans	2.7% Add- on	BCR Add- on	Total Credit Reduction	FUTA Tax Rate[4]
###	0.0%	0.0%	0.0%	0.00%	0.6%
###	0.0%	0.0%	0.0%	0.00%	0.6%
Potential 2018[5]	0.0%	0.0%	0.0%	0.00%	0.6%

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Repair The House Before it Rains Again