

# Commonwealth of Massachusetts



**Debt Affordability Committee**

*10/17/2016*



# Debt Affordability Committee (DAC) Meeting #2: Objectives and Agenda



- **Present Debt Affordability Projections (10, 20, 30 year projections)**
  - Debt Service to Revenue
  - Debt Load
  - Stress-test model
  - Statutory Debt Limit
- **Review affordability ratios**
  - Comparisons with other states
  - Projected Ratios
- **Discuss long term assumptions**
  - Pension
  - OPEB
  - MassHealth
  - Revenue



# Base Assumptions



- The model makes assumptions regarding interest rates, issuance, revenue growth, and drivers of non-discretionary spending
- All assumptions can be changed to “stress-test” the affordability of different levels of issuance under different economic and spending scenarios
- The two following charts show the assumptions used in developing the capital budget

*[For policy development and discussion purposes only.]*



# Assumptions: Issuance



Measure	Working Assumption	Rationale
10 year interest rate	3.5% +10 bps /year for 15 years	Conservative, slightly higher than today's rates
20 year interest rate	4% +10 bps/year for 15 years	Conservative, slightly higher than today's rates
30 year interest rate	4.5% + 10 bps/year for 15 years	Conservative, slightly higher than today's rates. Does not assume constant low rates
Debt Service	Level debt service (equal payments until maturity)+Contract Assistance	Abstracts past serial issuance, proceeds vs. par, doesn't push off estimated impact
Bond cap issuance	\$2.190 B/year through 2021, 3% thereafter	Current capital plan
ABP issuance	\$400 M over 3 years	Remainder of authorization. Split between GANS/CTF
Special Obligation Issuance	\$1.35 B over 4 years	Remainder of REP in current capital plan. \$450 M issued FY16, ~\$100 M issued to date FY17
Self-Supporting Issuance	\$100 M/year	Based on recent spending levels

[For policy development and discussion purposes only.]



# Assumptions: Budget

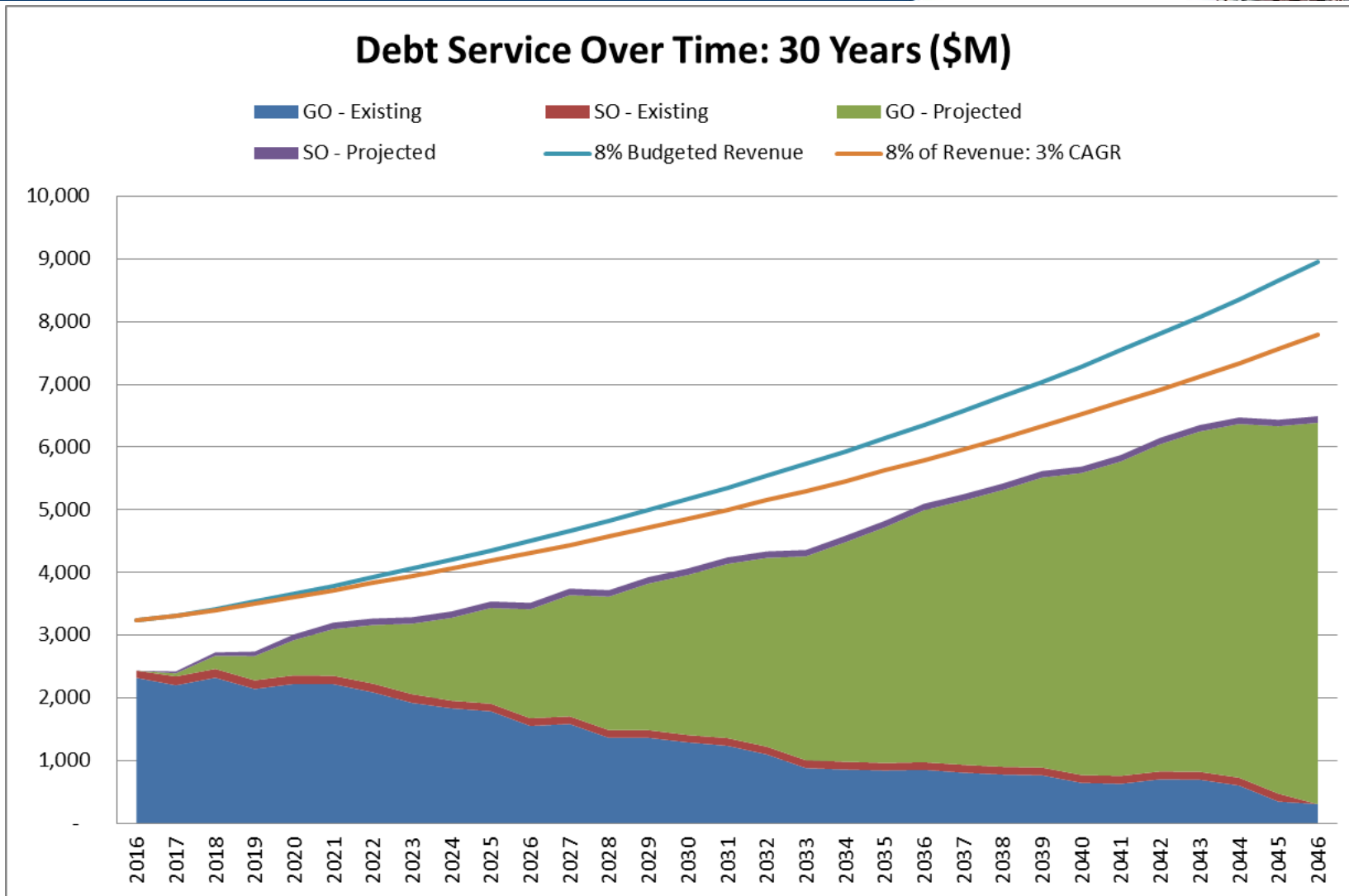


Measure	Assumption	Rationale
Revenue Growth	3.5% increase a year	FY06-FY16 CAGR of 3.17% (Tax CAGR FY05-FY16=3.7%)
Pension	10% increase to FY17 and 7% a year thereafter ; fully amortized FY37	Current funding schedule. New funding schedule based on most recent valuation will be implemented in FY18
MassHealth	6% growth through FY20, 4% thereafter	Conservative growth rate assumptions
Local Aid & Chapter 70	3.3%	Historical growth rate
Existing Debt Service	Paid down at current schedule	Best working assumption, though refinancing will likely smooth repayment (September 1, 2016 DBC run)

*[For policy development and discussion purposes only.]*



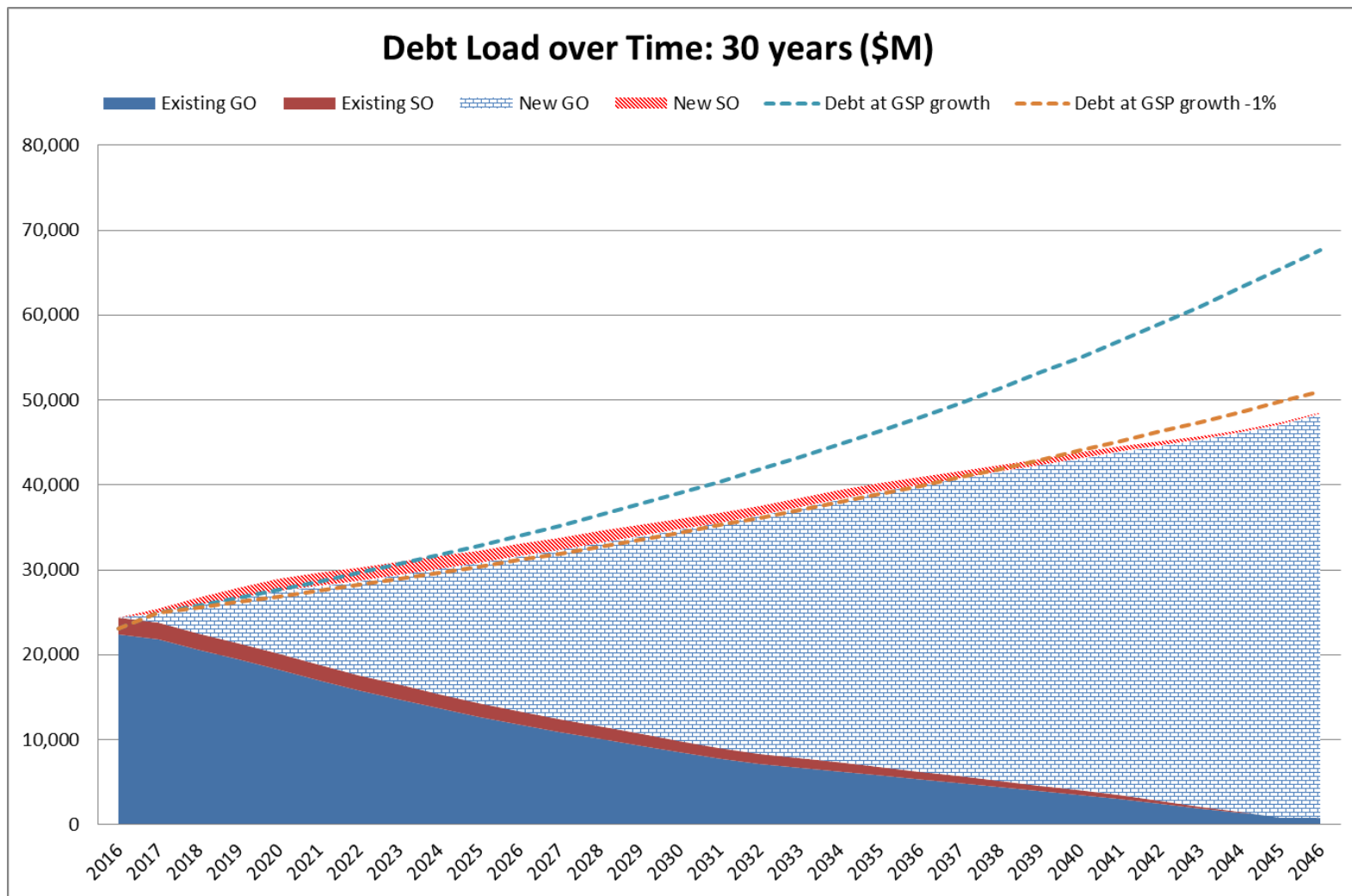
# Base Assumption: 30 year debt service



[For policy development and discussion purposes only.]



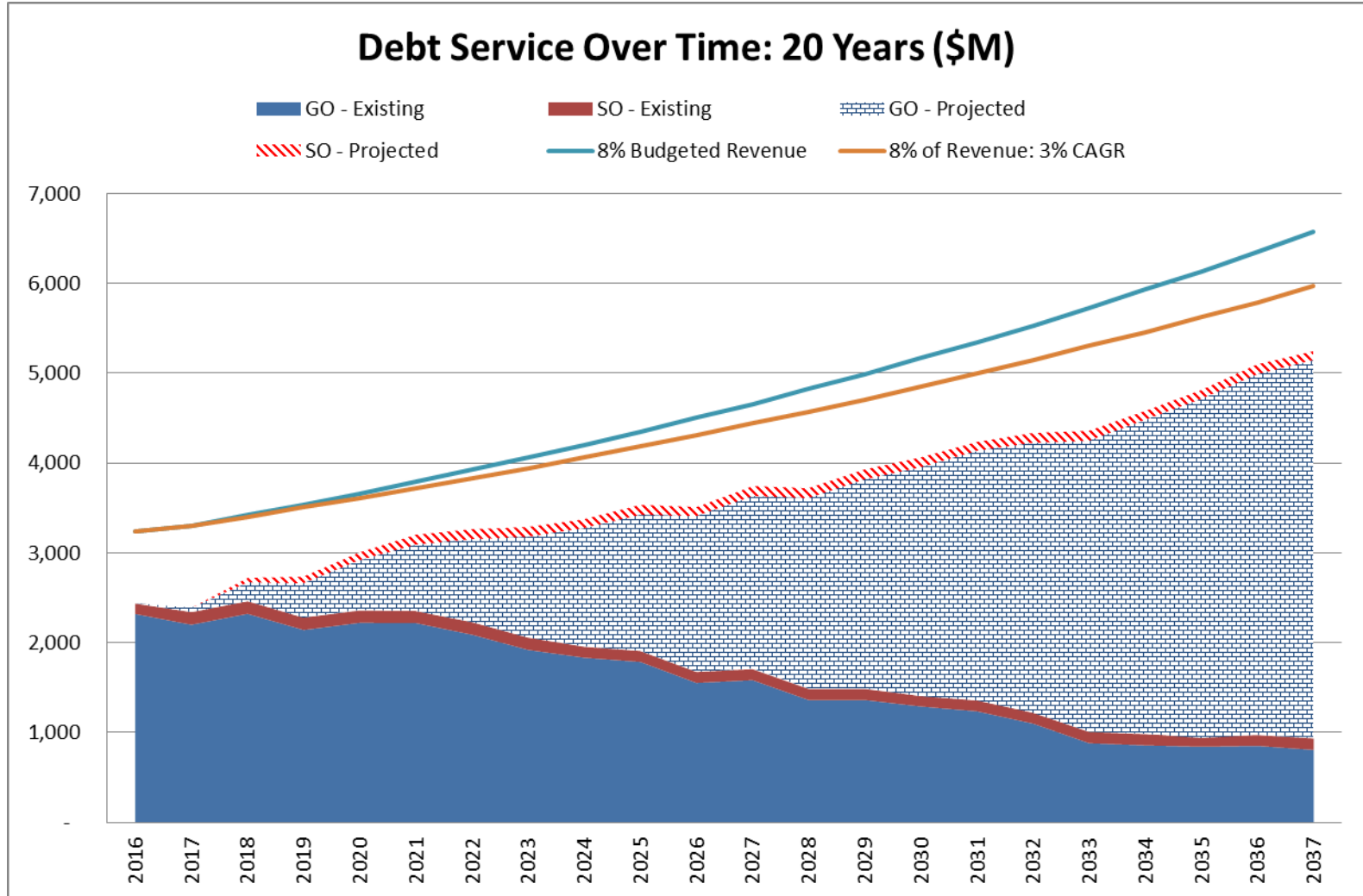
# Base Assumptions: 30 Year Debt Load



[For policy development and discussion purposes only.]



# Base Assumptions: 20 year debt service

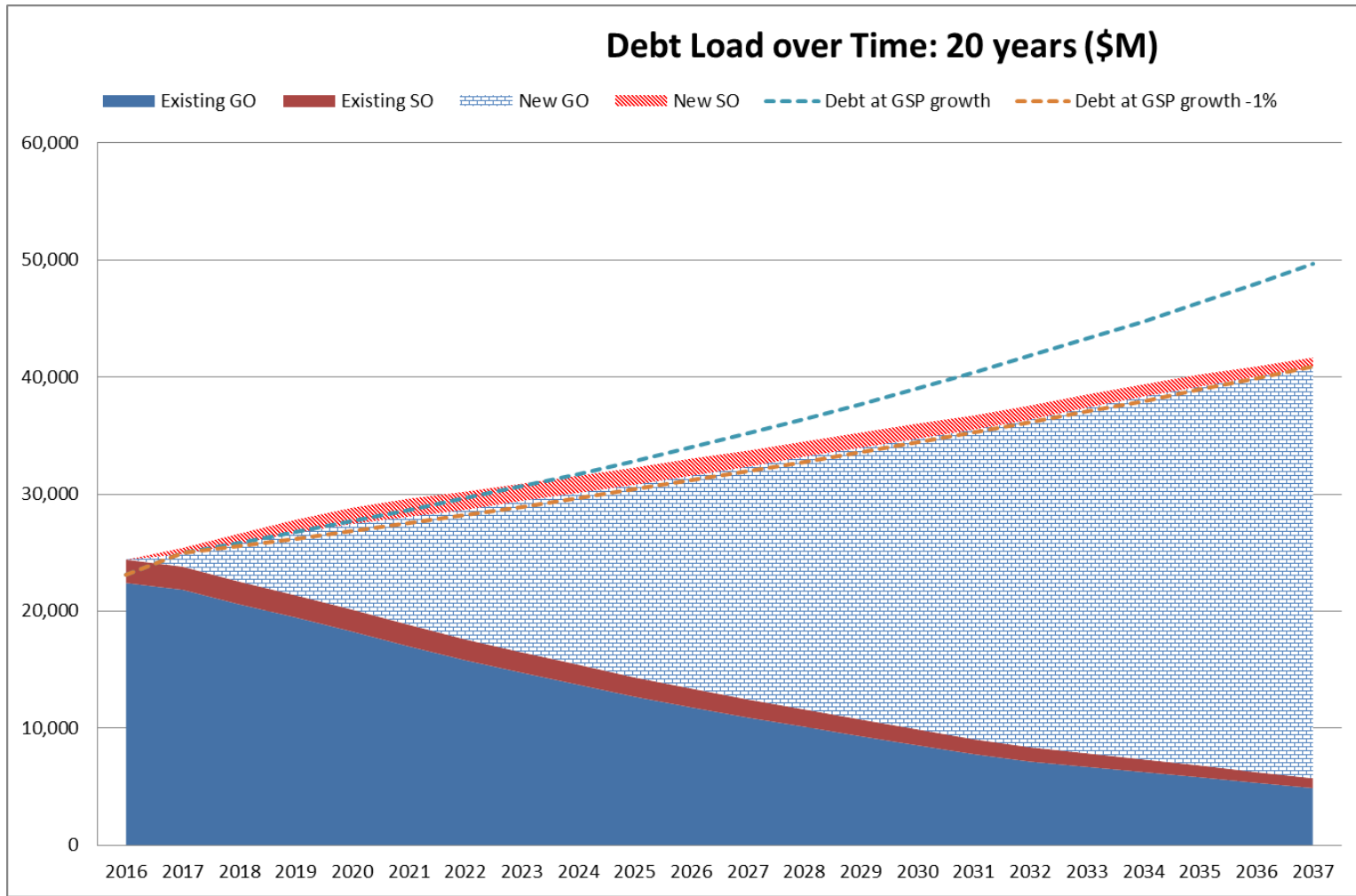


[For policy development and discussion purposes only.]





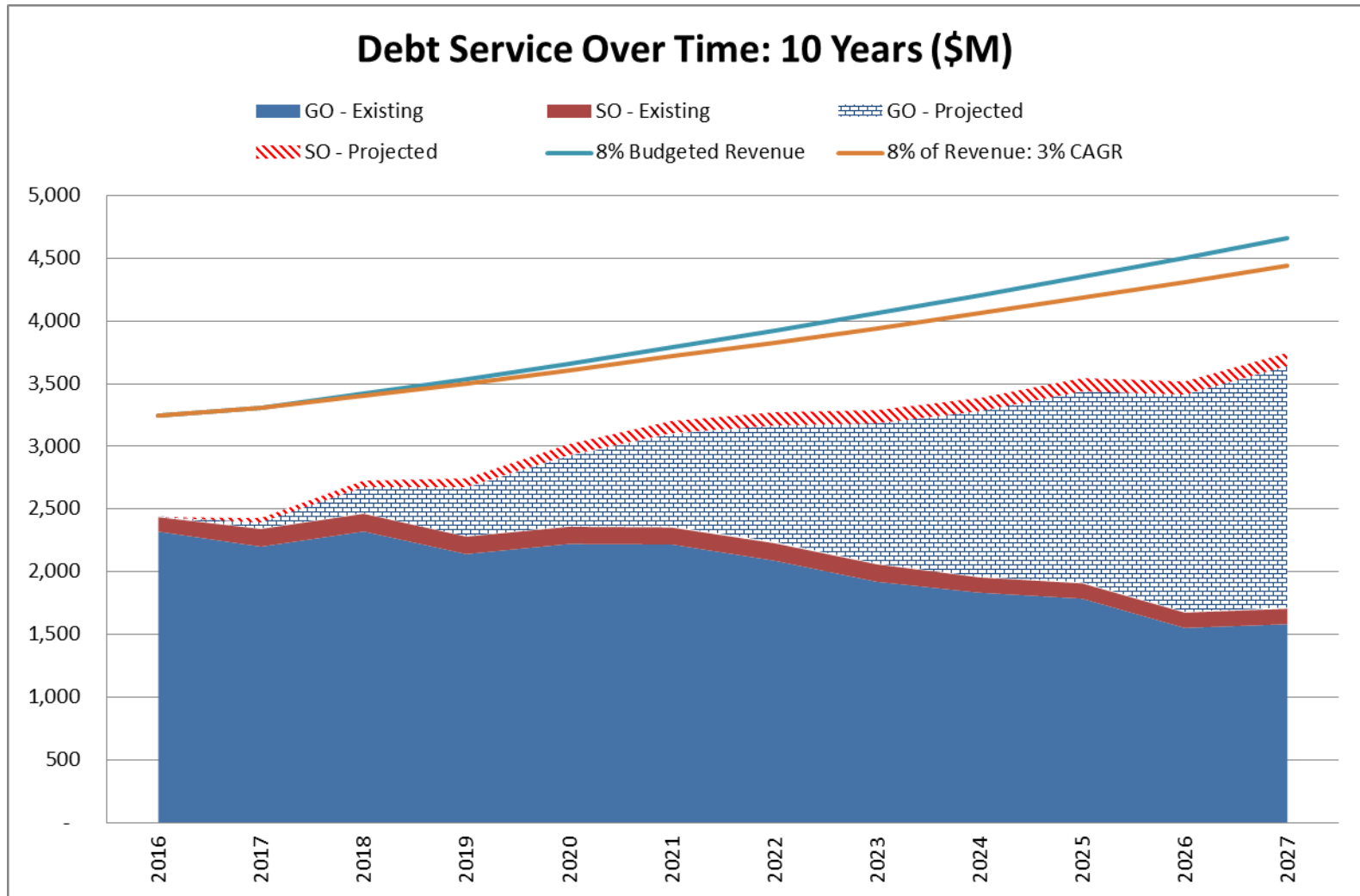
# Base Assumptions: 20 year debt load



[For policy development and discussion purposes only.]



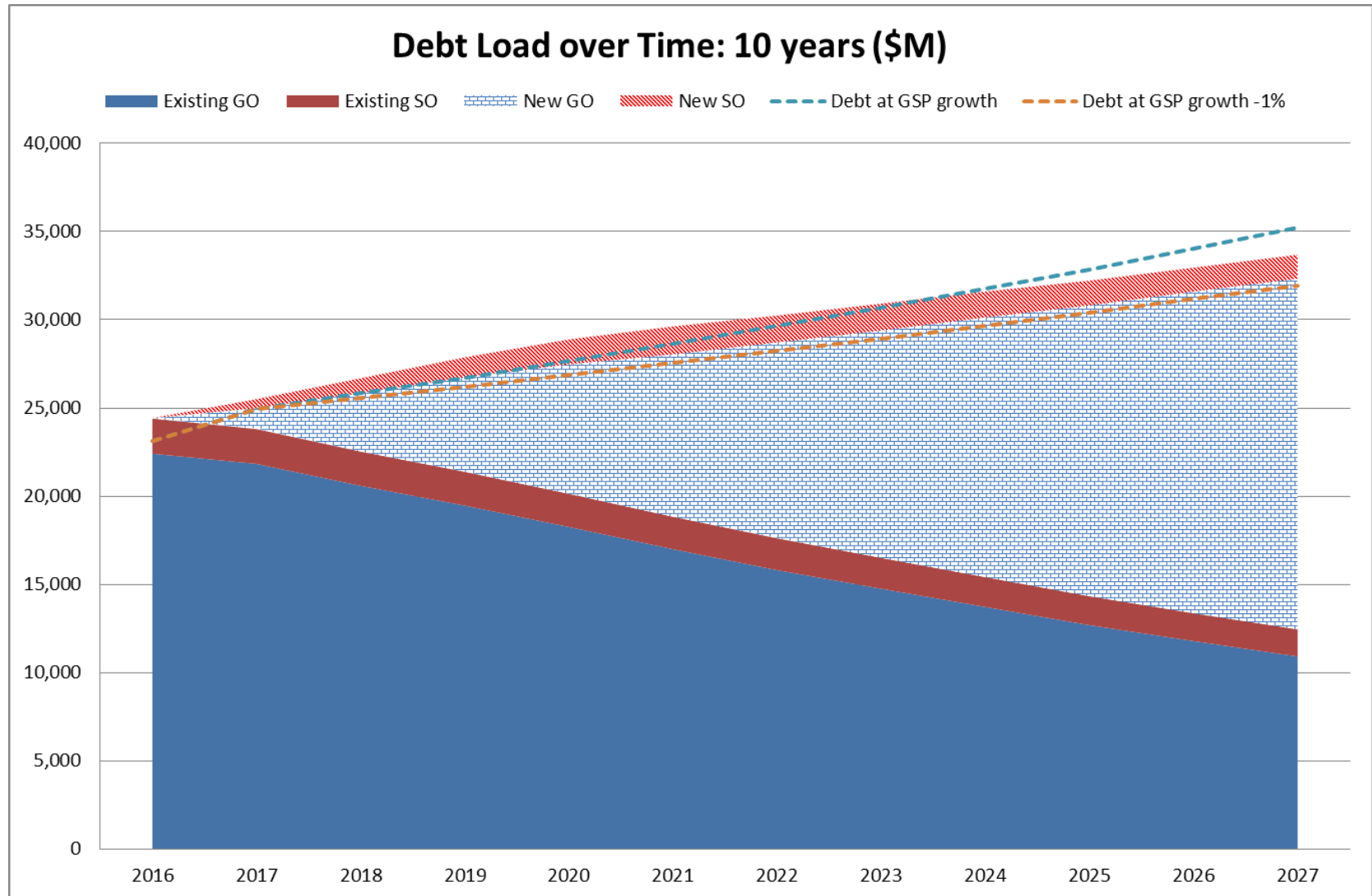
# Base Assumptions: 10 year Debt Service



[For policy development and discussion purposes only.]



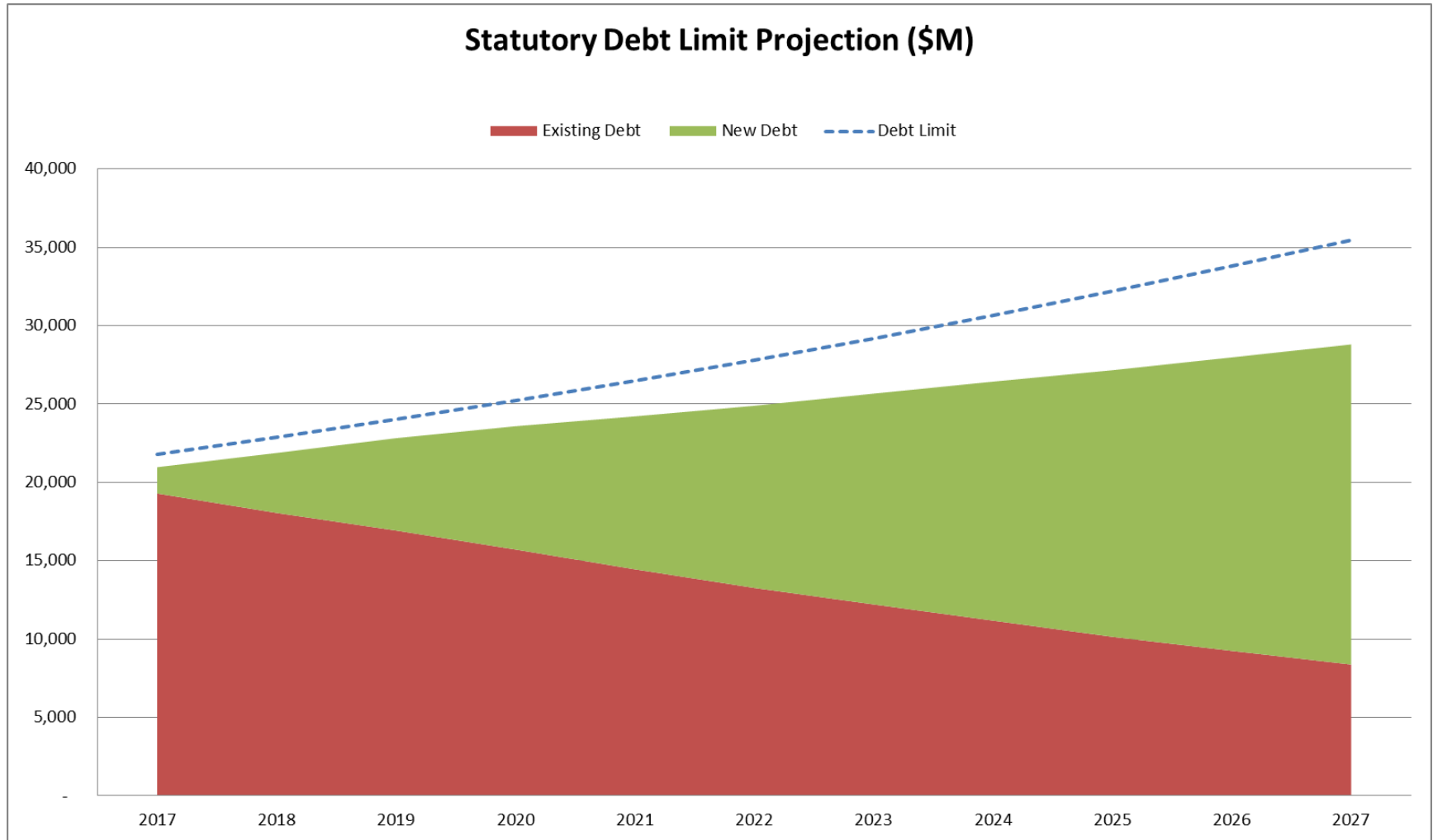
# Base Assumptions: 10 year debt load



[For policy development and discussion purposes only.]



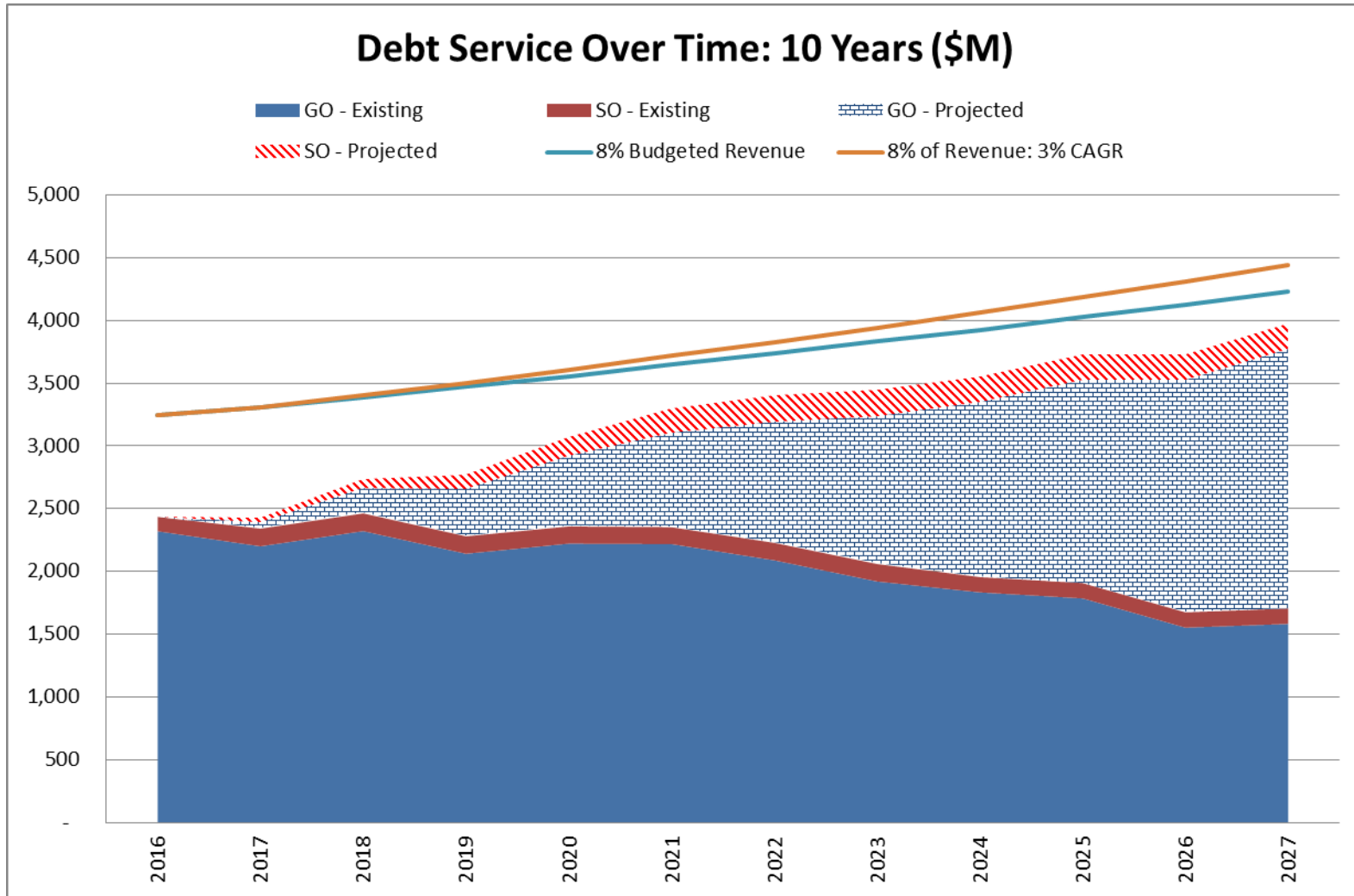
# Statutory Debt Limit: Base Issuance



*[For policy development and discussion purposes only.]*



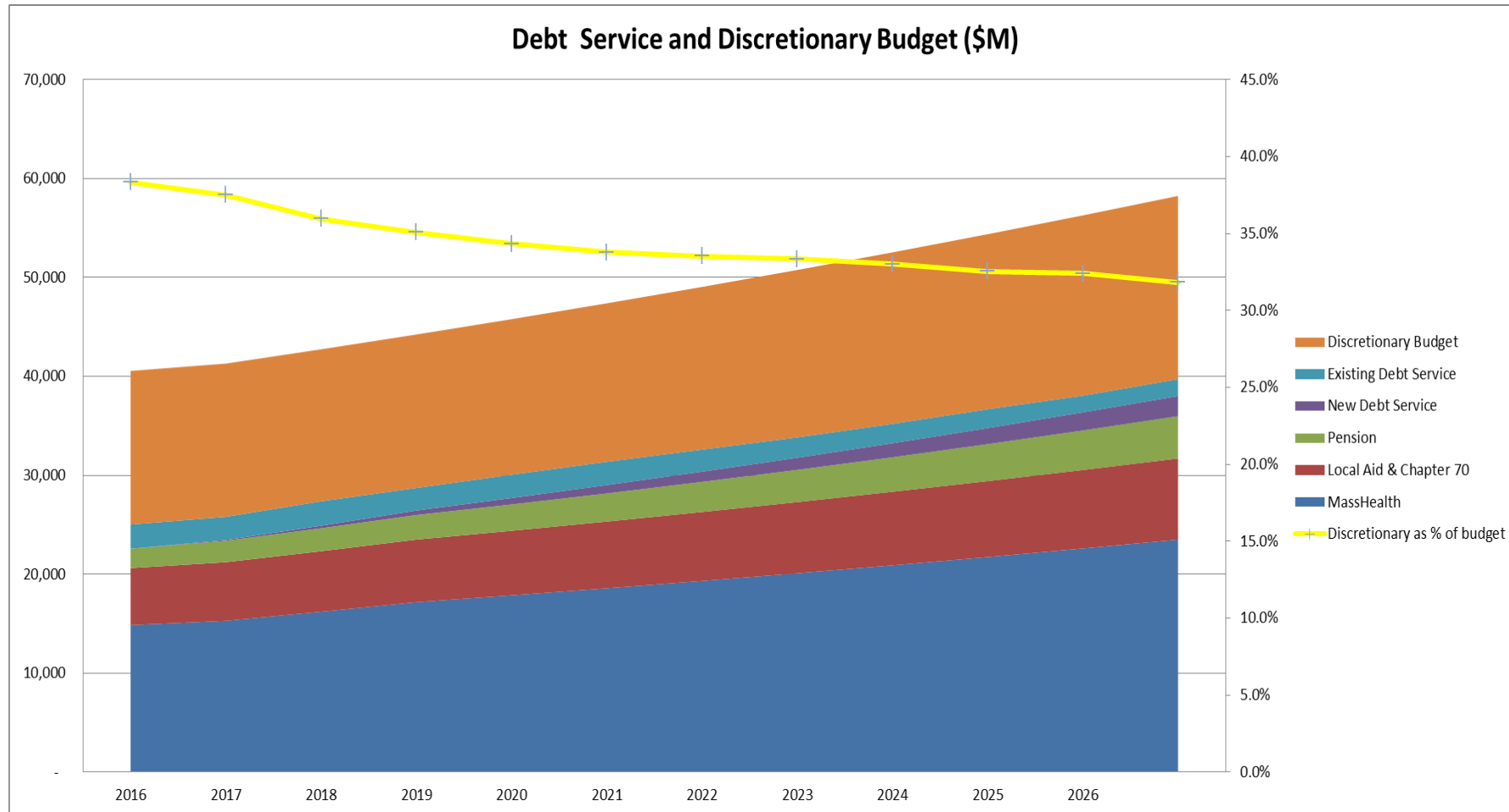
# Stress Test: 2.5% revenue growth, \$3.5 B REP issuance, 3% bond cap growth beginning FY18



[For policy development and discussion purposes only.]



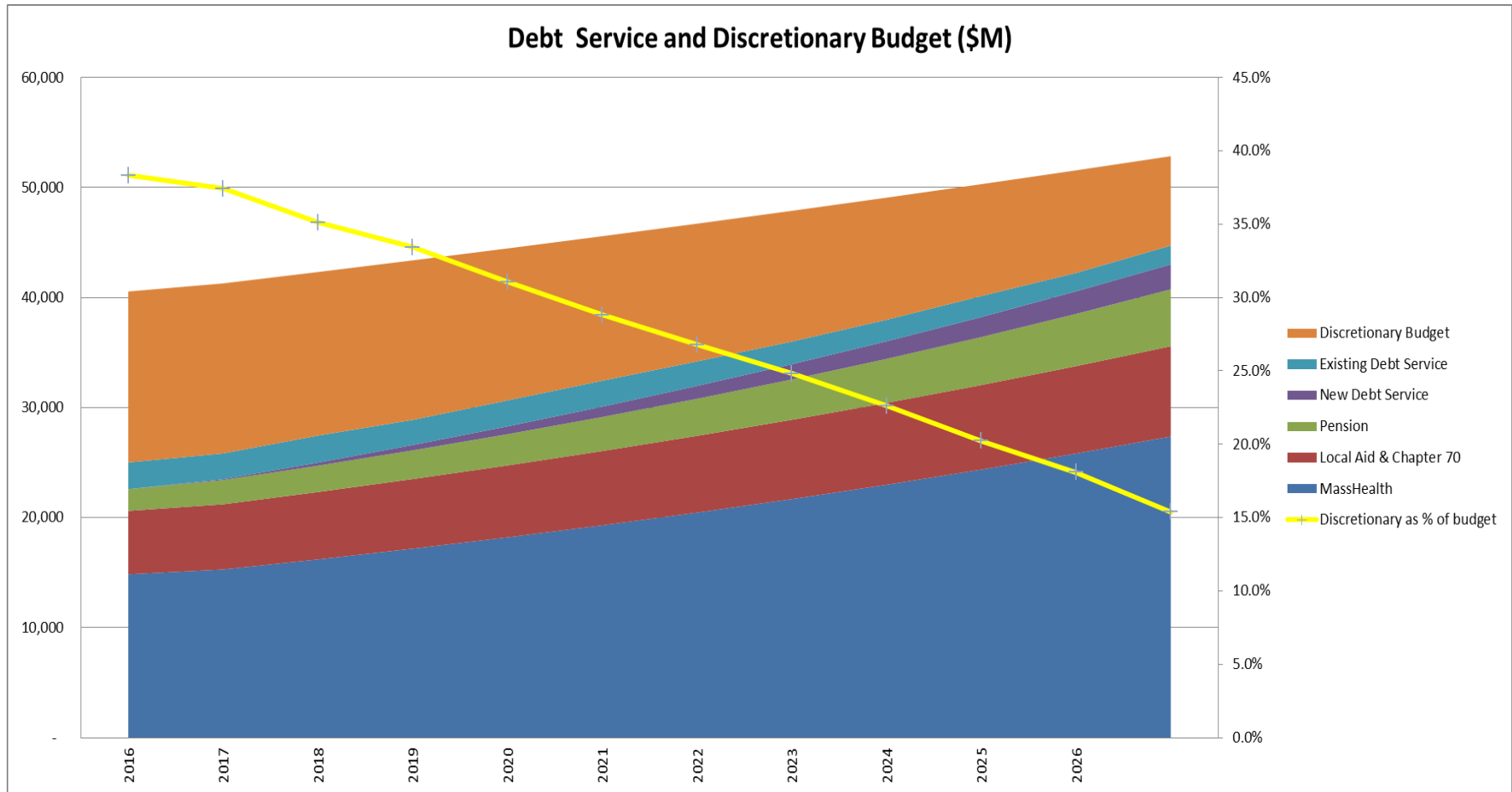
# Discretionary Budget: Base Assumptions



[For policy development and discussion purposes only.]



# Discretionary Budget: Stress Test\*



[For policy development and discussion purposes only.]



# COMPS: Other States



STATES FOR COMPARISON	Debt to Personal Income	Debt Service to Personal Income	Debt per Capita	Debt as % of GDP	Debt Service as % of GDP	Debt Srvc. as % of Expenditures	Debt Srvc. as % of Revenues
Connecticut	8.68%	0.95%	\$5,630	8.70%	0.95%	8.41%	8.90%
Maine*	0.30%	0.30%	\$120	0.31%	0.31%	2.19%	2.27%
Maryland	3.46%	0.36%	\$1,875	3.49%	0.37%	3.52%	3.82%
<b>MASSACHUSETTS</b>	<b>5.66%</b>	<b>0.70%</b>	<b>\$3,324</b>	<b>5.28%</b>	<b>0.65%</b>	<b>5.54%</b>	<b>5.80%</b>
Minnesota	3.23%	0.40%	\$1,581	2.99%	0.37%	3.26%	3.16%
New Hampshire	3.78%	0.20%	\$1,994	3.99%	0.21%	2.70%	2.91%
New York	3.81%	0.48%	\$2,119	3.27%	0.41%	3.91%	3.91%
North Carolina	1.99%	0.23%	\$778	1.76%	0.20%	2.12%	2.12%
Ohio**	3.21%	0.25%	\$1,356	2.96%	0.23%	2.99%	2.89%
Rhode Island	4.83%	0.59%	\$2,334	4.87%	0.59%	4.46%	4.77%
Vermont**	2.04%	0.25%	\$948	2.19%	0.26%	2.28%	1.99%
Virginia	1.40%	0.20%	\$705	1.37%	0.19%	2.54%	2.58%

[For policy development and discussion purposes only.]

\* Not including moral obligation debt





# Economic Capacity

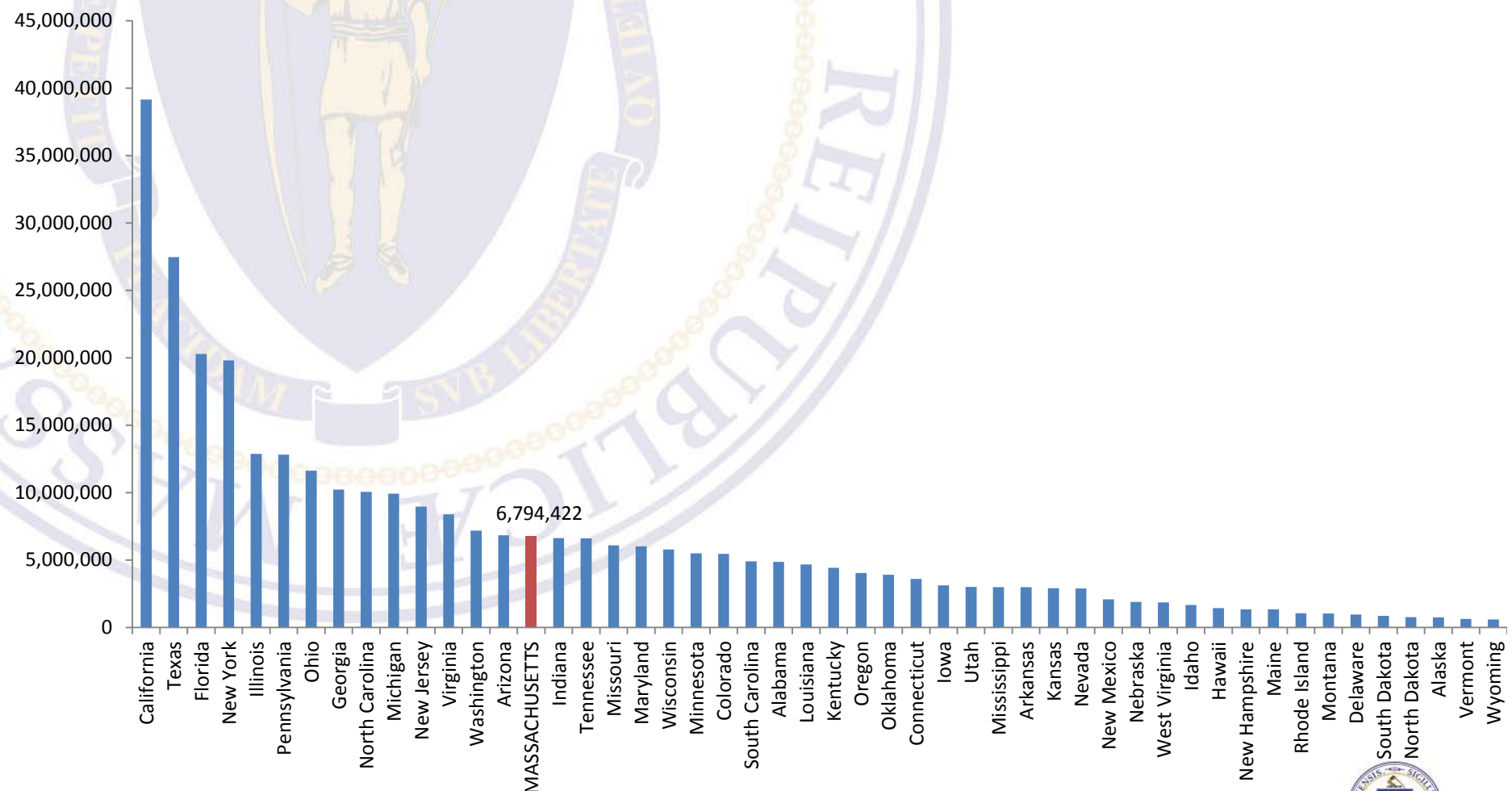


- **Population**
- **Personal Income**
- **GDP**
- **Debt per capita**

*[For policy development and discussion purposes only.]*

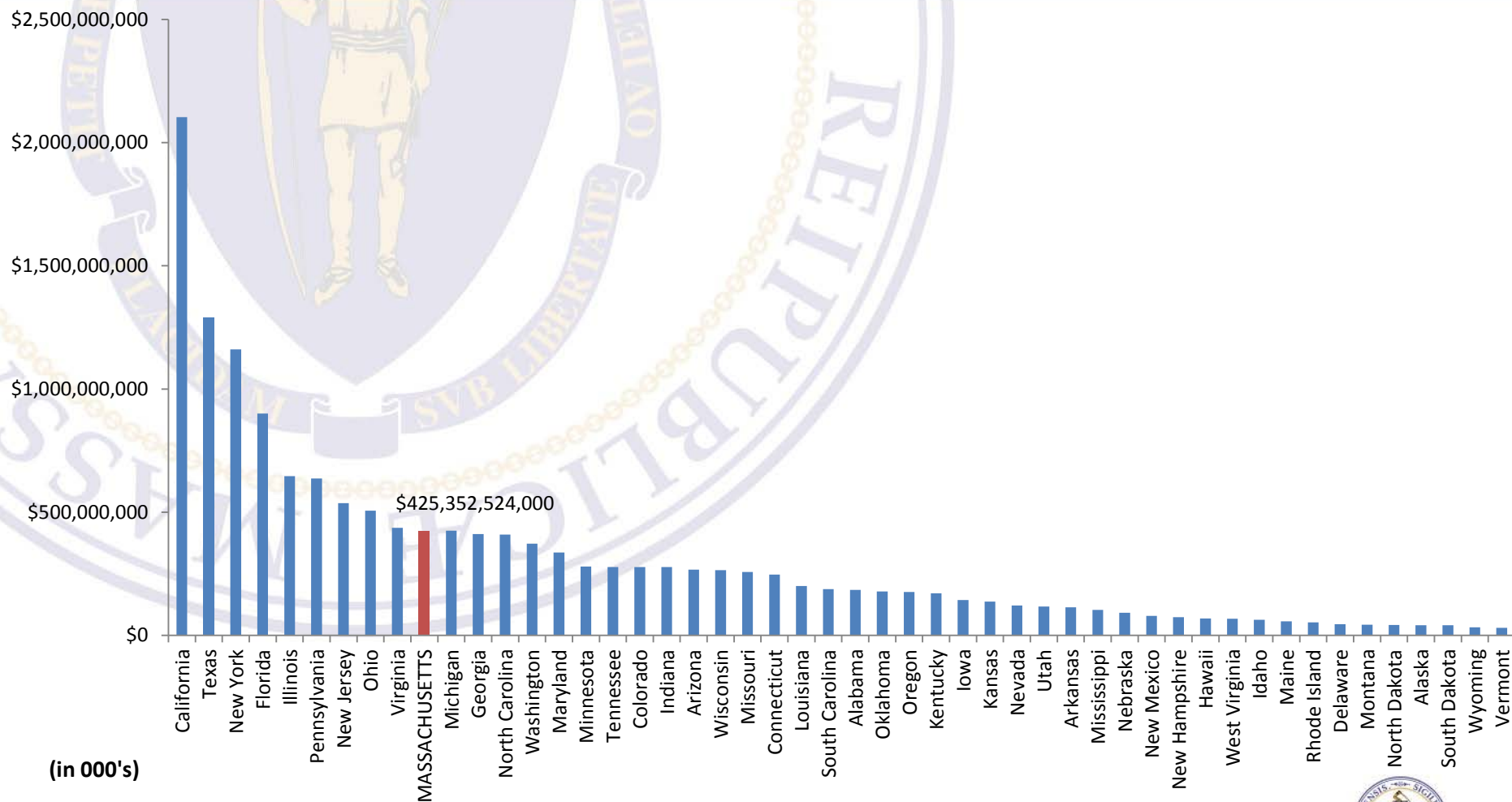


# 2015 Population



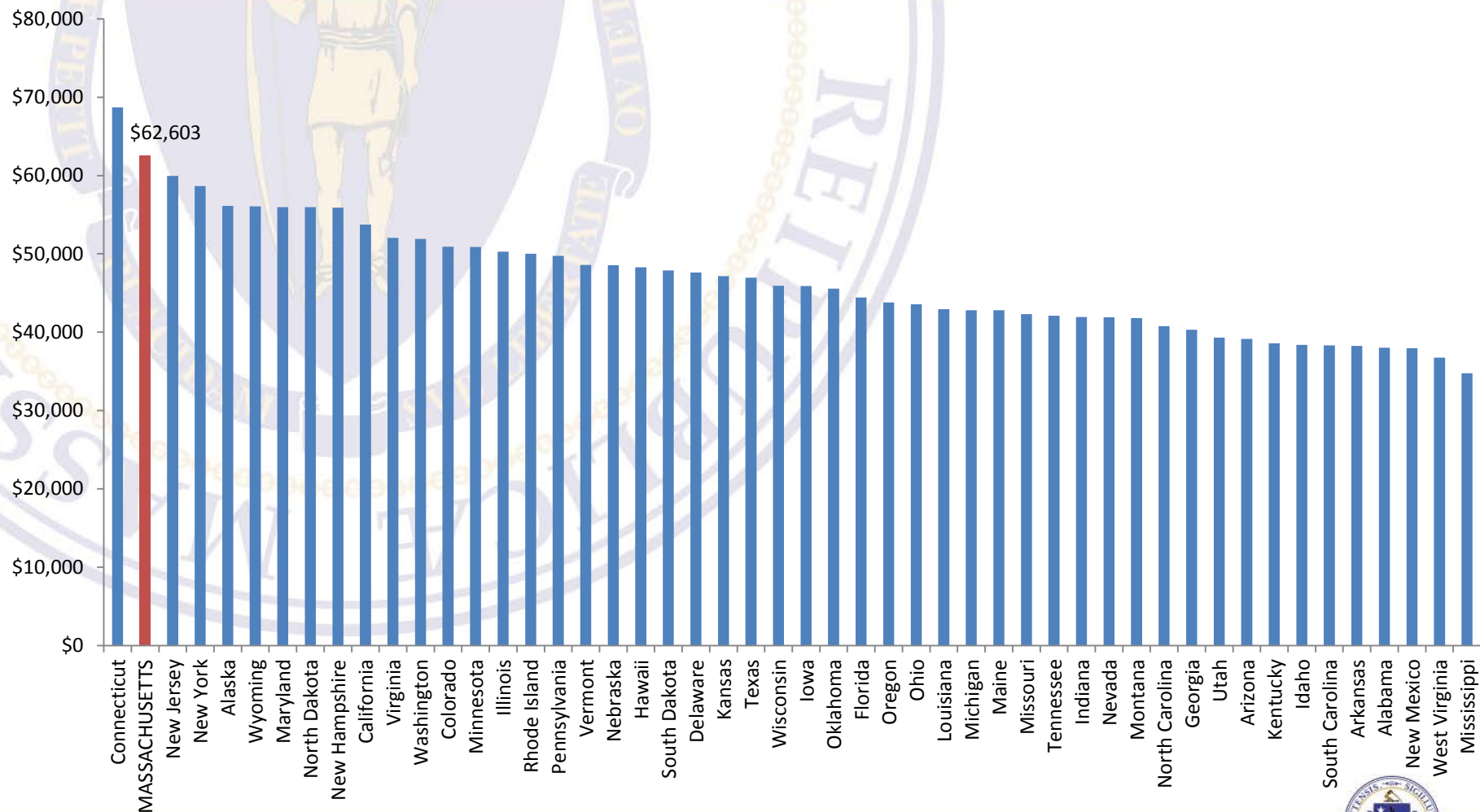


# 2015 Personal Income



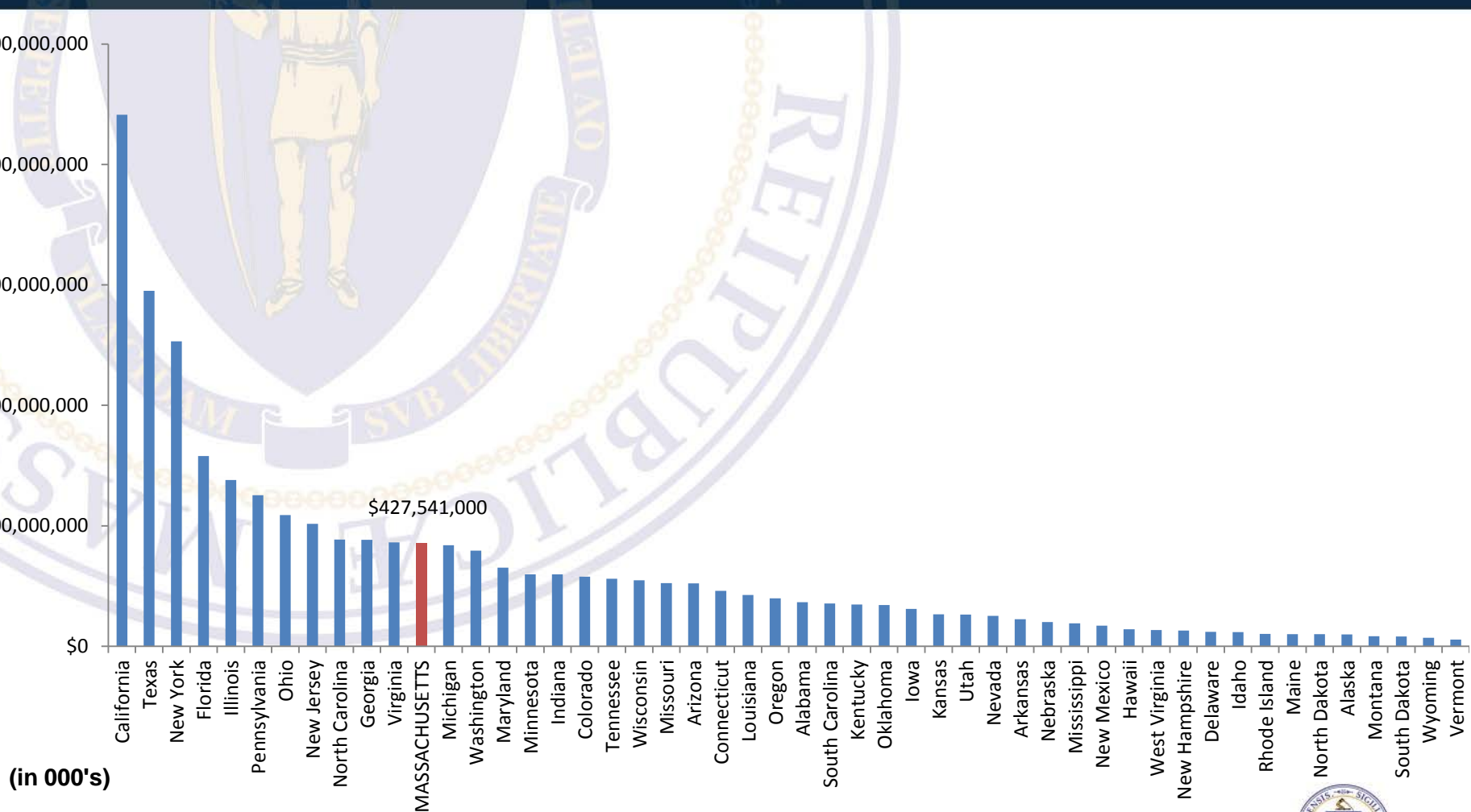


# 2015 Personal Income Per Capita



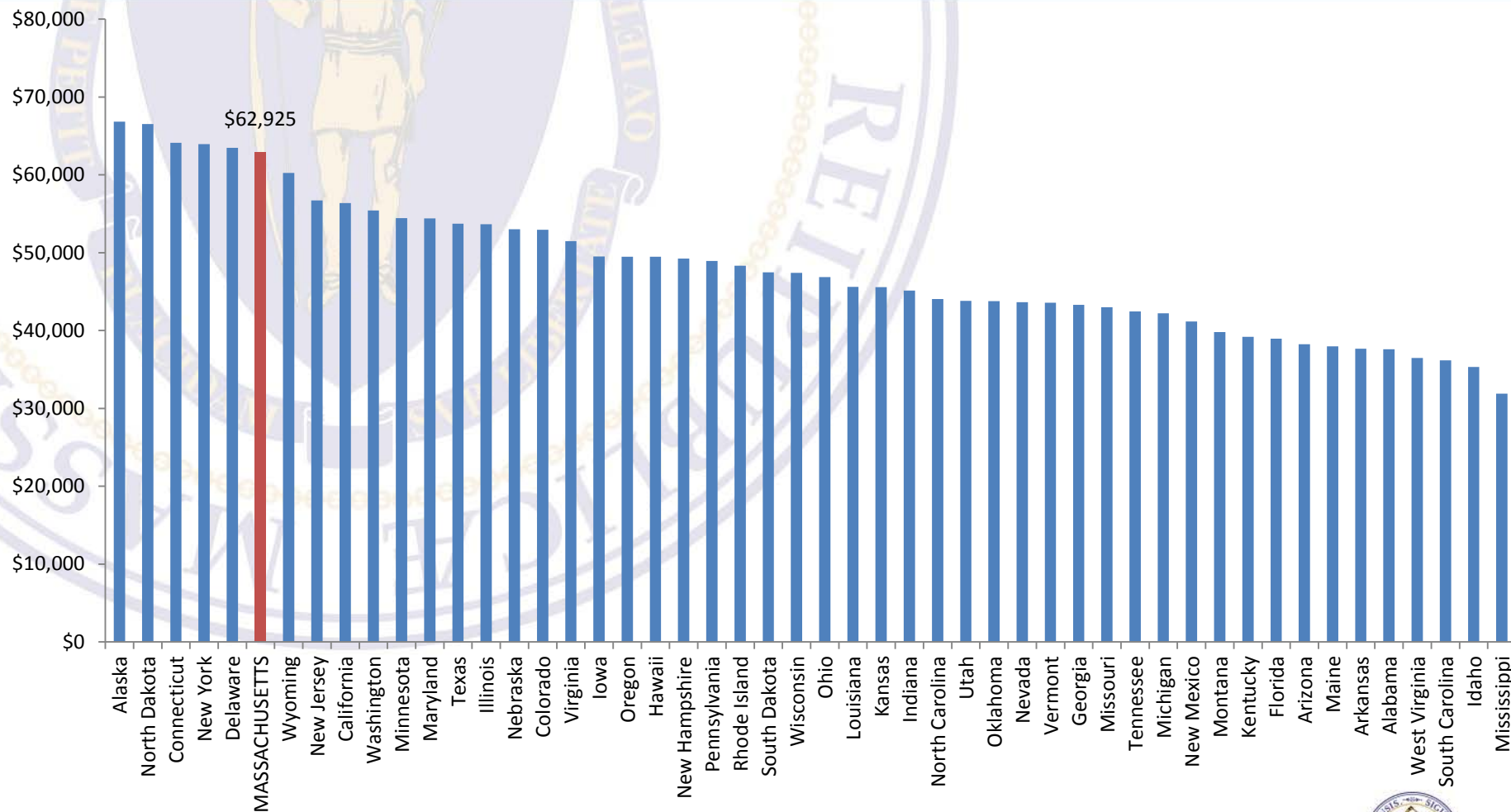


# 2015 GDP





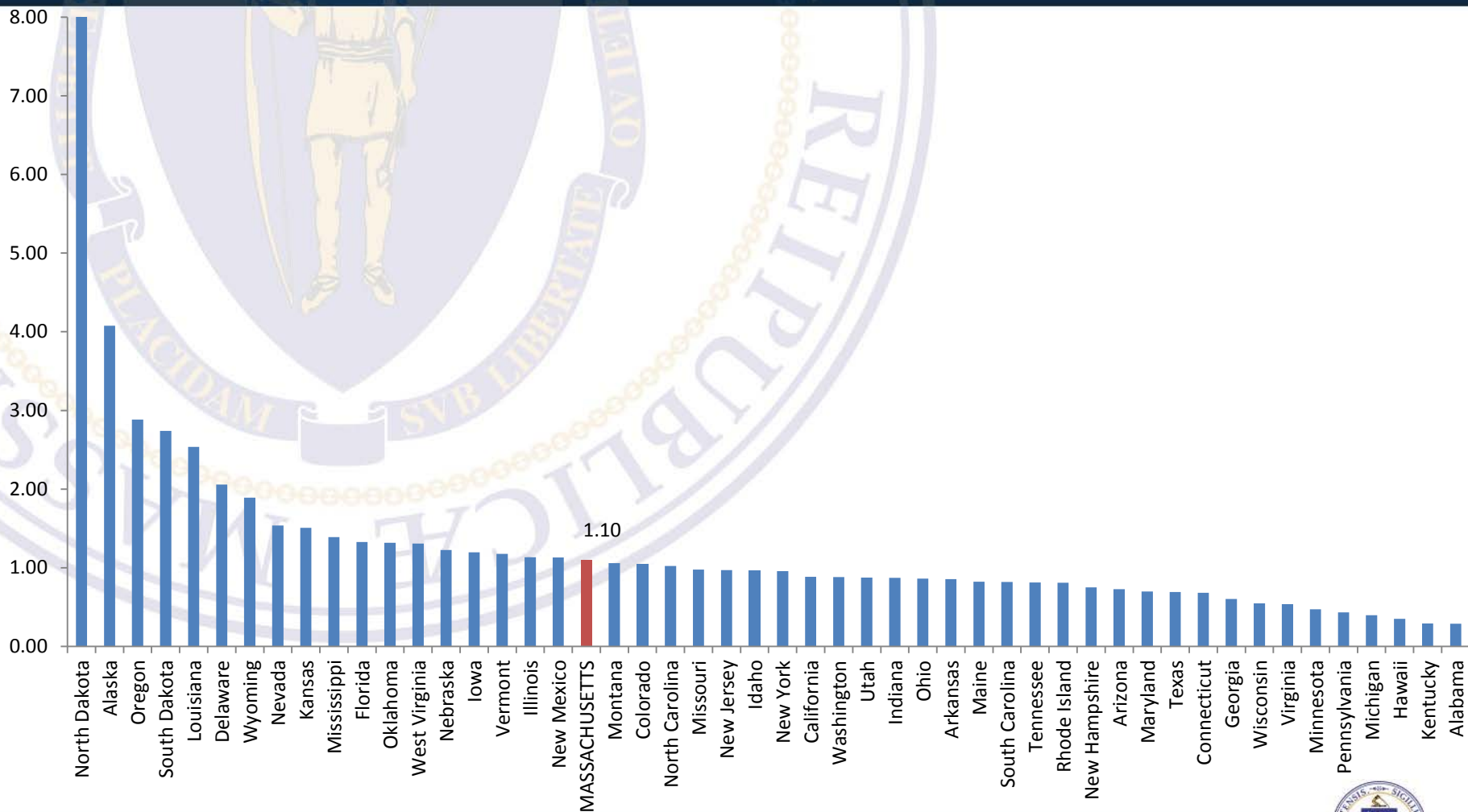
# 2015 GDP Per Capita





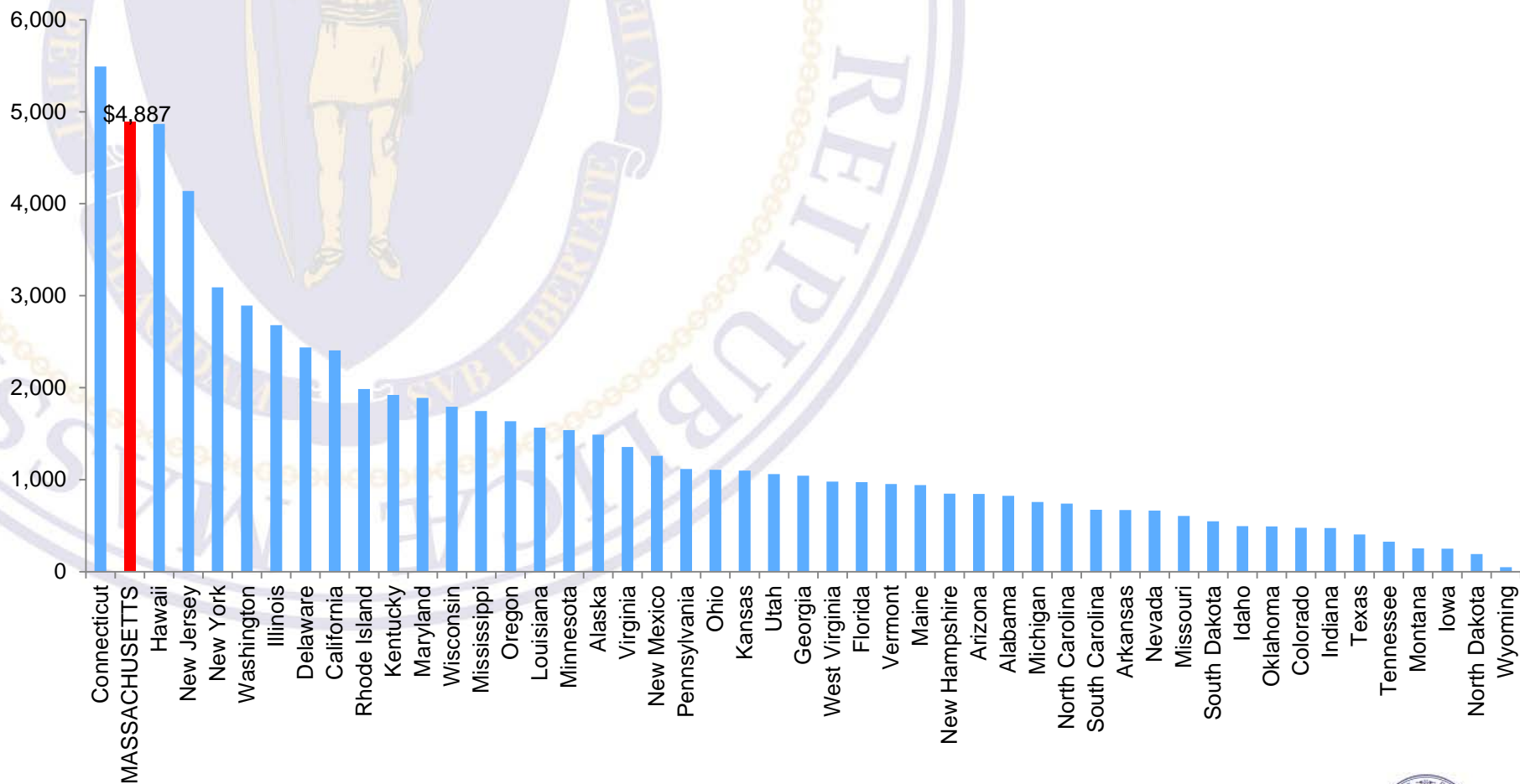


# 2010-2015 GDP Volatility





# 2015 Net Tax Supported Debt Per Capita







# Comps projections



	Base				Stress			
	2017	2027	2037	2047	2017	2027	2037	2047
Debt Service to budgeted revenues	5.9%	6.4%	6.4%	5.4%	5.9%	7.6%	8.6%	8.1%
Discretionary Budget as % of Revenues	38.3%	31.8%	36.4%	36.7%	38%	24%	22%	14%
Debt Per Capita	3,707	4,672	5,488	6,270	3,707	5,138	6,157	7,048
Debt/GSP	5.0%	4.7%	4.1%	3.5%	5.1%	5.8%	5.7%	5.3%

[For policy development and discussion purposes only.]



# Long Term Projections: Pensions



- The Commonwealth is responsible for the pensions of over ~320,000 active members, retirees, and beneficiaries.
- Valuation Results (in millions)

		1/1/2013	1/1/2016
Total Normal Cost		\$1,372	\$1,794
Employee Contributions		<u>\$1,058</u>	<u>\$1,212</u>
Net Normal Cost		\$314	\$582
Actuarial Liability		\$71,866	\$87,240
Assets (Actuarial Value)		<u>\$43,517</u>	<u>\$49,535</u>
Unfunded Actuarial Liability (UAL)		\$28,348	\$37,866



# Pensions: Current Funding Schedule



- Based on results of 1/2013 valuation, adopted January 2014
  - Appropriation increased 10%/year FY15-FY17
  - 7%/year thereafter until FY35 with final amortization payment in FY36
  - Called for transfers of \$2.001 B in FY16, \$2.027 B in FY17, escalating to \$7.33 B in FY35 (inclusive of \$29 M amortization of costs related to Early Retirement Incentive Program (ERIP) over 15 years per FY16 legislation)
- 2014 funding schedule is built into current debt affordability model
- Next funding schedule based on 1/2016 valuation to be adopted in January 2017



# Pensions: New Valuations and Funding Schedule



- From 1/2015 - 1/2016, UAL was expected to increase by approx. \$1.3 B, before changes to assumptions and actual gains/losses, due to structure of funding schedule
- The 1/2016 valuation increased the UAL by \$4.4 B from 1/2015, driven by changes in assumptions as well as plan performance
  - **Reduced investment return assumption from 7.75% to 7.5%**
    - increased UAL \$2.2 B
    - more conservative approach; aligns investment expectations better with recent experience
    - Massachusetts is now near the median of the 125 largest public pension plans in the U.S. with 7.5% assumption
  - **Actuarial Experience/Miscellaneous**
    - ERIP increased UAL by \$230 M; amortization of ERIP cost was funded in pension transfers in FY16 and FY17
    - Actuarial net loss on investments and liabilities increased UAL by \$300 M
    - Optional Retirement Plan (ORP) transfer required by statute increased UAL by \$400 M
- Next funding schedule
  - UAL has increased substantially since the adoption of the current funding schedule
  - New schedule will require adjustment to current schedule, with impacts on the operating budget



# Long Term Projections: Other Post Employment Benefits (OPEB)



- The Commonwealth provides health care benefits to vested retirees. There were almost 76,000 retiree/survivors and about 74,000 active members as of January 2016.
- The most recent (draft) actuarial evaluation as of January 1, 2016 estimated the Commonwealth's unfunded OPEB liability at \$16.3B (using a discount rate of 4.5%), an increase of approximately \$400 million from January 1, 2015.
- OPEB is substantially funded on a pay-as-you-go basis; the value of plan assets as of January 1, 2016 was \$760M vs. the \$16.3B liability. Due to the lack of pre-funding, the Governmental Accounting Standards Board (GASB) requires the Commonwealth to use a lower liability discount rate (currently 4.5%) than the "expected rate of return on investments" discount rate of 7.5% used for pensions, which increases the OPEB liability.
- The Commonwealth will see increased OPEB costs as the retiree population and medical costs increase. Payouts are expected to rise from \$460M in FY16 to \$900M - \$1B in FY24.
- The Commonwealth currently has two funding sources for the OPEB trust:
  - Tobacco Settlement: 30% of proceeds in FY16 (\$77M), by statute increasing to 100% of proceeds by 2022. By statute, the FY17 required transfer is 50% of settlement proceeds, or \$122M, but the FY17 budget froze the contribution rate at 30%, or approximately \$73M.
  - 5% of capital gains taxes over \$1B: \$23M in FY13 and \$2 M in FY14, \$0 in FY15 and FY16 due to suspension of requirement. Not budgeted in succeeding years due to changes to the requirement in the annual operating budgets and the uncertainty of forecasting capital gains.
  - In FY15, the Commonwealth contributed only 45% of the Annual Required Contribution using 4.5% discount rate
- Unlike the pension system, there is no funding schedule to amortize the unfunded liability.



# Long Term Projections: MassHealth



- MassHealth's long term fiscal impact is driven by enrollment growth, change in per-person medical costs, and federal reimbursement levels
- MassHealth is currently 39% of the budget, and has been growing faster than revenue; 9.9%/year on a net basis between FY10 and FY17
  - Not counting one-time ARRA revenues, net growth has been approximately 8% per year since 2010
- Since the ACA implementation in FY13, gross program spending (excluding admin and supplemental payments) increased by 44%; net program spending increased by only 31% as the Commonwealth received higher reimbursement rates on many of the new enrollees
- Much of the long term fiscal picture is driven by MassHealth's enrollment growth and increases in utilization



# MassHealth Historical Spending and Revenue

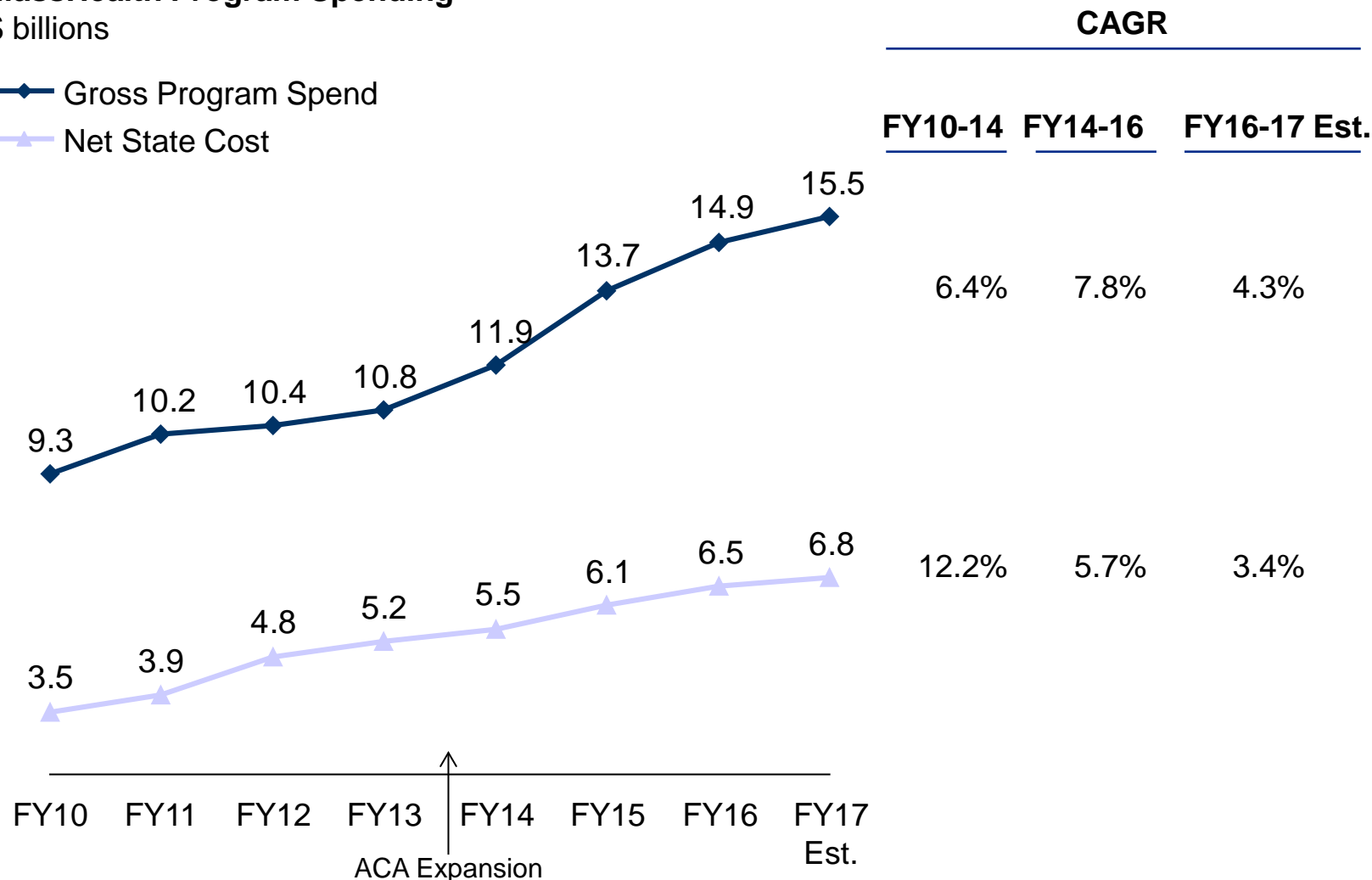


## MassHealth Program Spending\*

\$ billions

◆ Gross Program Spend

▲ Net State Cost



\*Program spend includes Hutchinson settlement; excludes MATF and DSTI supplemental payments; includes \$73.5M revenue from one-time DSRIP Trust Transfer; excludes other transactions in DSRIP Trust (DSRIP Payments, hospital assessment revenue, hospital assessment payments)



# MassHealth Long-term Planning



- MassHealth's baseline program spending growth is primarily driven by exogenous factors
  - Enrollment – historical (pre-ACA) membership growth of 3-4% per year
  - Higher utilization (long-term services and supports)
    - Mandatory expansion of covered services – e.g., Personal Care Attendant (PCA) overtime and sick time, adult dental benefits
    - High-cost specialty drugs – e.g., Sovaldi/Harvoni for Hep C treatment
    - Court settlement requirements – e.g., Hutchinson
  - Non-discretionary price growth
    - Capitation rates are required to be actuarially sound
    - Medicare premium increases
- EOHHS redesign of payment and total cost of care contracting (ACOs) will help address longer term sustainability (FY18 and beyond)





# Long-Term Projections: Revenue



- DOR does not do long term revenue forecasts

## FY17 Consensus Revenue Estimate

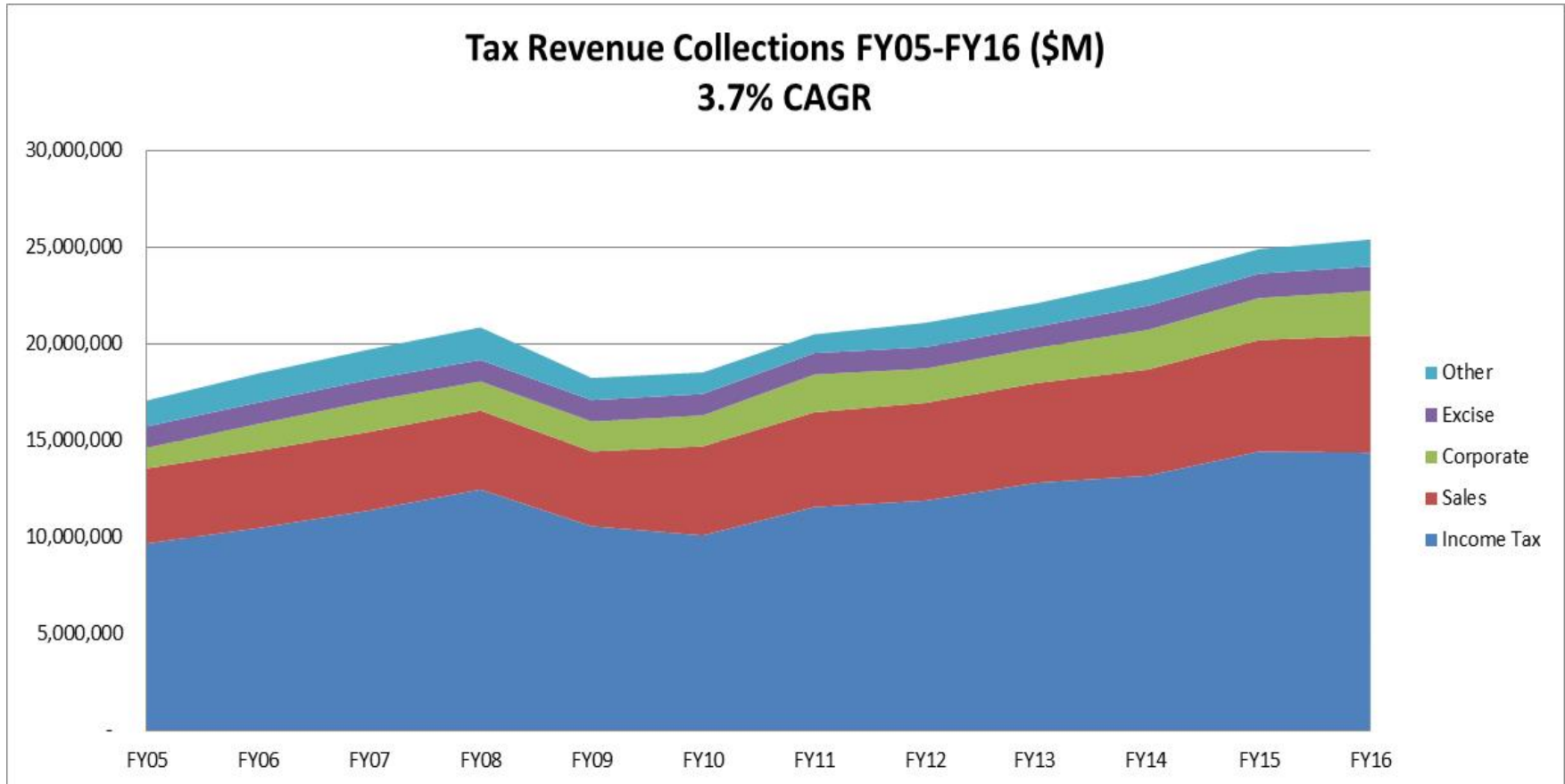
- The FY17 consensus revenue forecast projected \$26.86 B of tax revenue, an increase of 6.3% over FY16
- Following poor tax revenue performance in FY16, the GAA incorporated a revised estimate of \$26.231 B

## FY18 Consensus revenue estimate:

- Commonwealth does not have an official revenue estimate beyond FY17 (No official longer-term revenue forecasts are made).
- The Consensus Revenue Hearing will be held in December 2016
- W&M Chairs and A&F Secretary will **hear testimonies from area economists and DOR in December 2016,**
  - They will decide on a **FY18 estimate (Consensus)** in January 2016.
- Since 1980 revenues have grown at a 7.2% annual rate
- Over the last 11 years, that rate has slowed to 3.7%, though that data includes a steep recession



# Historical Trends





# Revenue & Economic Forecasts; Risks:



## Economic Forecasts:

- DOR subscribes to economic forecast data for MA and U.S. from vendors *IHS Global Insight* and Moody's Analytics:
- Baseline economic forecasts:

### Growth Rate Projections of Selected Economic Variables (\*)

	FY2017		Average in the next 5 Fys		Average in the next 10 Fys	
	MA	US	MA	US	MA	US
Real Gross Domestic Product	2.5%	2.2%	2.1%	2.2%	2.2%	2.1%
Wage & Salary	5.0%	4.4%	4.7%	4.9%	4.4%	4.5%
Employment	1.7%	1.6%	0.7%	0.9%	0.6%	0.8%
S&P500	N.A.	8.7%	N.A.	4.4%	N.A.	5.4%
Retail Sales	3.8%	3.7%	4.1%	4.3%	4.3%	3.8%
Corporate Profits	N.A.	5.7%	N.A.	3.1%	N.A.	4.3%
Unemployment Rate	4.3%	4.8%	4.5%	4.8%	4.5%	4.7%
Interest Rate(Bank Prime Rate)	N.A.	3.7%	N.A.	5.7%	N.A.	6.2%
Consumer Price Index	1.8%	1.8%	2.6%	2.5%	2.6%	2.4%

(\*) Averages of Forecasts made by Moody's Analytics and IHS Global Insight.

For 10 year averages, only Moody's projections are used

N.A. Not available

