STATE BOARD OF LAND COMMISSIONERS
September 16, 2014
Regular Agenda

SUBJECT

Approve:

- Distributions to endowment beneficiaries for fiscal year 2016
- Transfers from Earnings Reserve
- Higher targeted reserve levels for six endowments

BACKGROUND

By statute, the Land Board determines the allocation of the Earnings Reserve Funds of the endowments – how much to distribute to beneficiaries, how much to transfer to the permanent fund, and how much to retain for future distributions. The Land Board's Asset Management Plan requires the Endowment Fund Investment Board (EFIB) to provide a recommendation on this allocation based on the Land Board's Distribution Policy.

Over the last nine months, the EFIB, with Callan's assistance, has been evaluating the level of reserves required to meet the Land Board's objective of minimizing the chance of a reduction in total distributions. As presented to the Land Board in February, the latest evaluation results in increases in the level of reserves for most endowments from the five year level established when this analysis was last performed in 2007. The increase in reserves is driven primarily by a lower expected return on the fund (6.6% annually) and, for some endowments, lower expected land revenues.

RECOMMENDATION

The Endowment Fund Investment Board recommends the Land Board approve an 8.6% increase in total distributions for fiscal year 2016 compared to fiscal year 2015. Distributions would increase for all endowments except School of Science, whose reserves are not at the target level (seven years).

In addition, the Investment Board recommends that $38.6 million of Earnings Reserves for six endowments be transferred to their Permanent Funds effective October 1, since these endowments have more than the target level in their reserves. Further, it is recommended that all of the transfers increase the Gain Benchmarks (or permanent corpus) of those funds, since all six have already achieved their previous Gain Benchmarks.

Based on recent analysis, the EFIB recommends that the target for reserves be increased to six years for Normal School and seven years for Ag College, Penitentiary, School of Science and University. Public School, Charitable Institutions, and State Hospital South would remain at five years.

As explained in Attachment 1, the recommended distributions and transfers appear to be achievable and represent an appropriate balance between the interests of current and future beneficiaries, taking into account the current level of earnings reserves and expected future fund returns and land revenues.

Table 1

	Distributions To Beneficiaries				Transfer To	Added to
	Approved FY2015	***Proposed FY2016****	***% Change****	***$ Change****	***Permanent Fund*****	***Gain Bench-mark******
Public School	31,292,400	32,758,800	4.7%	1,466,400	-	-
Ag College	1,164,000	1,288,800	10.7%	124,800	3,238,000	3,238,000
Charitable Instit.	3,852,000	4,500,000	16.8%	648,000	6,267,000	6,267,000
Normal School	3,144,000	3,608,400	14.8%	464,400	1,388,000	1,388,000
Penitentiary	1,707,600	1,872,000	9.6%	164,400	3,050,000	3,050,000
School of Science	3,866,400	3,866,400	0.0%	-	-	-
State Hosp. South	3,625,400	4,562,400	25.8%	937,000	10,733,000	10,733,000
University	3,326,400	4,016,400	20.7%	690,000	13,892,000	13,892,000
	51,978,200	56,473,200	8.6%	4,495,000	38,568,000	38,568,000

* Based on 5% or 7% of 3-year average Permanent Fund balance, adjusted upward for any transfers from Earnings Reserve. Exception: School of Science was held at its 2015 level since its reserves are below target.

** Amount of Earnings Reserve in excess of what is deemed adequate relative to the 2016 distribution.

*** Amount of each transfer that will be considered a permanent increase in original corpus. Since there are no past losses and inflation has been offset, this year all transfers add to the Gain Benchmark.

RECOMMENDATION

1. Approve increasing the targeted level of reserves to six years for Normal School and seven years for Ag College, Penitentiary, School of Science and University.
2. Approve the recommended distributions totaling $56.5 million and transfers totaling $38.6 million.

BOARD ACTION

ATTACHMENT

1. Background on Recommended Fiscal Year 2016 Distributions and Transfers

Recommended FY 2016 Distributions and Transfers

Land Board Meeting
September 16, 2014

EFIB Conclusions/Recommendation: Distributions and Reserves for FY 2016

- Recommend an 8.7% average increase in distributions in 2016 (primarily based on the % of Perm Fund formula)
  - 7 endowments go up, 1 stays even
- Based on updated analysis, recommend increasing reserves to 6 years for Normal School and 7 years for Ag College, Penitentiary, School of Science and University
- School of Science has less than targeted 7 years of reserves; recommend holding 2016 distributions at 2015 levels to avoid further diminishing reserve levels
  - Holding is consistent with the policy priority: *Maintain Adequate Earnings Reserves* comes ahead of *Grow Distributions*
- The Public School endowment achieved its Gain Benchmark (inflation-adjusted principal) for the first time in FY 2014
  - In 2016, its income will be based on total cumulative return
    - All other endowments already achieved their GBMs in prior years

ATTACHMENT 1

EFIB Conclusions/Recommendation: Transfers to the Permanent Fund

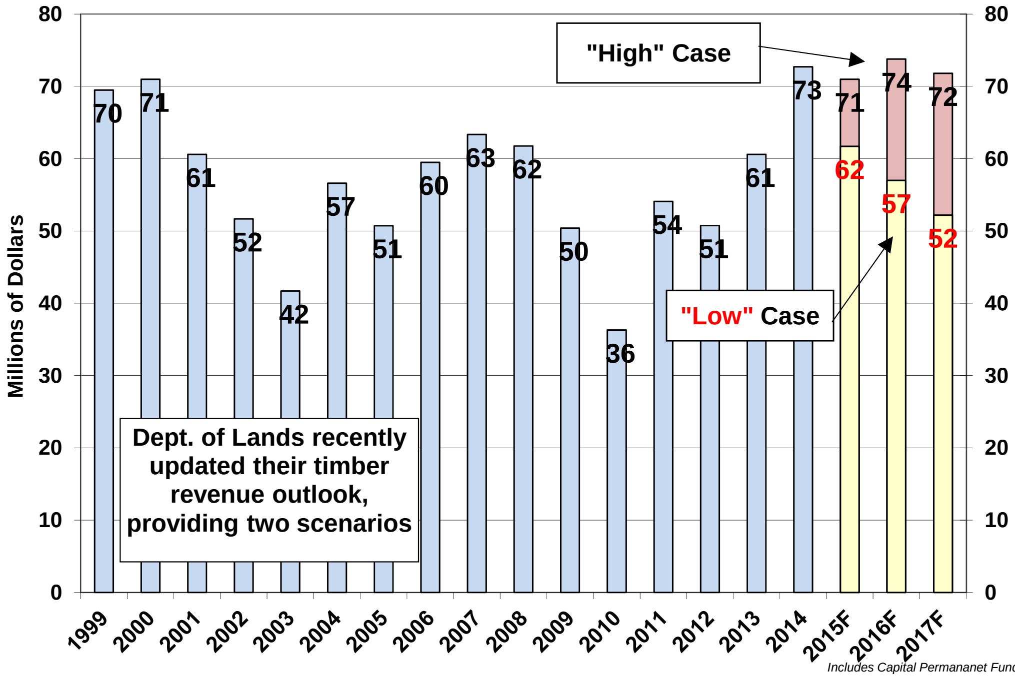
- Six endowments have more than their target levels of reserves:
  - Results in $38 million of transfers to their six Permanent Funds
    - Adds $1.8 million annually to the current and future distribution
- Strong fund returns in FY 2014 and past transfers have made up any losses in purchasing power, so all transfers should increase permanent corpus (i.e. the Gain Benchmark)
- With the transfer, most funds will have achieved the objective of growing corpus equal to population growth
  - Modest shortfalls still exist in Public School (3%) and Normal School (2%)

Current Situation

- Current year and next year's approved distributions are safe – every fund has reserves in excess of 5 years
- Record $103 million of timber presold as of June, 2014: Guaranteed income over the next 3 years
  - Caveat: Lumber prices and buyers' financial reserves must be sufficient to allow them to fulfill their contracts on time
- Net land revenue in FY2015 is forecasted at $51-$60MM compared to $64MM in FY 2014
  - Lumber prices were up 11% in FY 2014, log prices up 14%

Timber Revenue Forecast

Completed July, 2014



Recent review of reserve levels What was done

- Using a "Monte Carlo simulation", Callan considered a wide range of possible outcomes for:
  - Fund returns (around a 6.6% average)
  - Land revenues (around a forecast average)
    - Used new IDL forecast (including planned sale of cabin sites) and 6/14 fund balances
- Objective: At different reserve levels, how often, in 2,000 scenarios, would reserve levels fall to a year* or less?
  - Used two failure thresholds: once every 20 years (95% certainty), once every 40 years (97.5% certainty)

* ½ year for Public School, whose land revenues are less variable

Results of the analysis

- In most cases, the modelling work calls for higher reserves than the current 5 years
- EFIB recommends using the 95% certainty case, rather than the 97.5% used previously
  - Strong outlook for land revenues near term
  - We have time to adjust if necessary – higher reserves are driven primarily by weaker land revenues in the last five years
    - Callan review of land revenue forecasting process is in progress
  - Four endowments (Public School, Charitable, Normal, and Science) have significant undistributed gains in their permanent funds

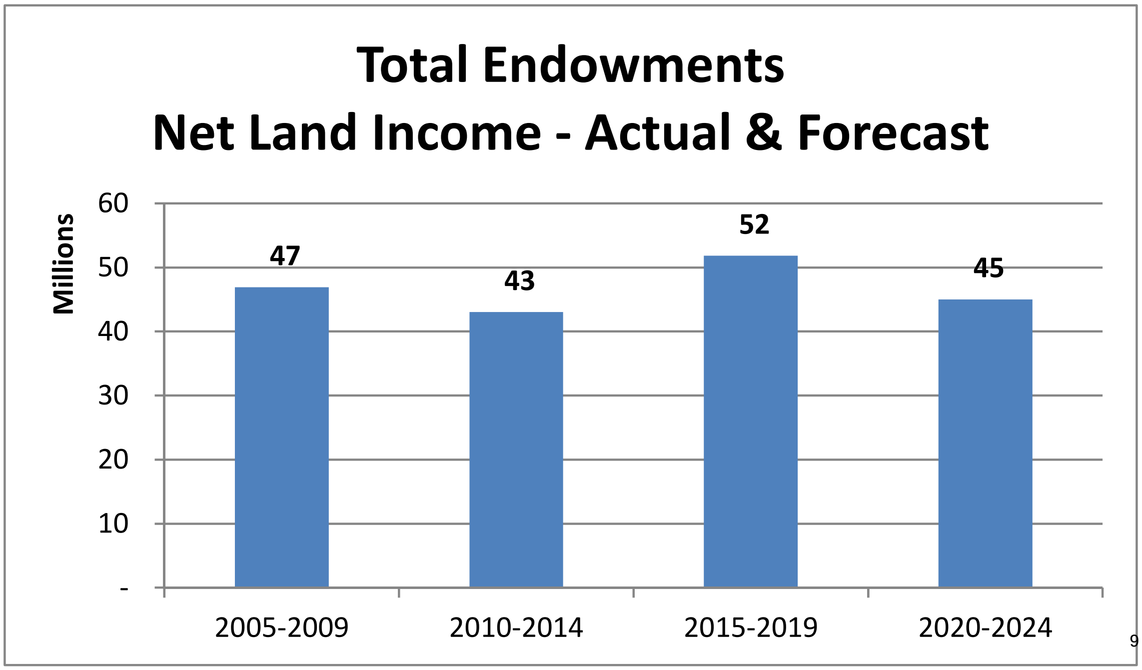
Recommended

Required Years of Reserves	***Public School***	***Ag College***	***Charit-able***	***Normal School***	***Peniten-tiary***	***School of Science***	***State Hospital***	***Univer-sity***
Failure 1 year out of 20 *(95% certainty)*	***5***	***7***	***5***	***6***	***7***	***7***	***5***	***7***
Failure 1 year out of 40 *(97.5% certainty)*	***6***	***7***	***6***	***7***	***8***	***8***	***5***	***7***

Why the increase compared to the analysis done in 2007?

- Increases in the targeted reserve level are primarily driven by:
  - Lower forecasted land revenues compared to history for some endowments
  - The Fund's future assumed return of 6.6% is 1.6% lower than it was in 2007
    - Also, expected volatility of return is materially higher (plus/minus 26% annually vs. 24% in 2007; *two standard deviations*)

Higher reserves are driven partly by lower land income in 2019 & beyond



Continuing to improve the process…

- EFIB staff will work with the reserve forecasting models Callan has developed
  - Enhance understanding of how reserves change when the fund's value grows faster or slower than the land's income
  - Evaluate the impact of proposed or adopted asset mix changes
- IDL will enhance their land revenue forecasting process based on Callan recommendations made as part of the Comprehensive Strategy Review

The outlook for distributions

- With reserves built and the permanent fund having achieved gain benchmark for all endowments, more income will flow to the distribution
  - Barring a major downturn in stocks or logs
- A rough estimate of future distributions, assuming only mediocre fund returns (2%) and “low” land revenues:
  - FY 2017: $65 mil. (Pub School @ $39 mil.)
  - FY 2018: $70 mil. (Pub School @ $44 mil.)

Conclusion and Recommendations

Scenario testing shows that the recommen-dations are prudent even under a “low” case

- Increase FY 2016 distributions for the 7 endowments with adequate reserves
  - Limit Public School’s increase to 1/5th of reserves
- Hold School of Science’s FY 2016 distribution at its current level
  - Build reserves to 7 years to protect future distributions
- Transfer excess reserves to the Permanent Fund to offset inflation/population and boost distributions
  - Increase reserves in five endowments given lower expected fund returns and other factors

Appendix

FY 2016 Distribution Presentation

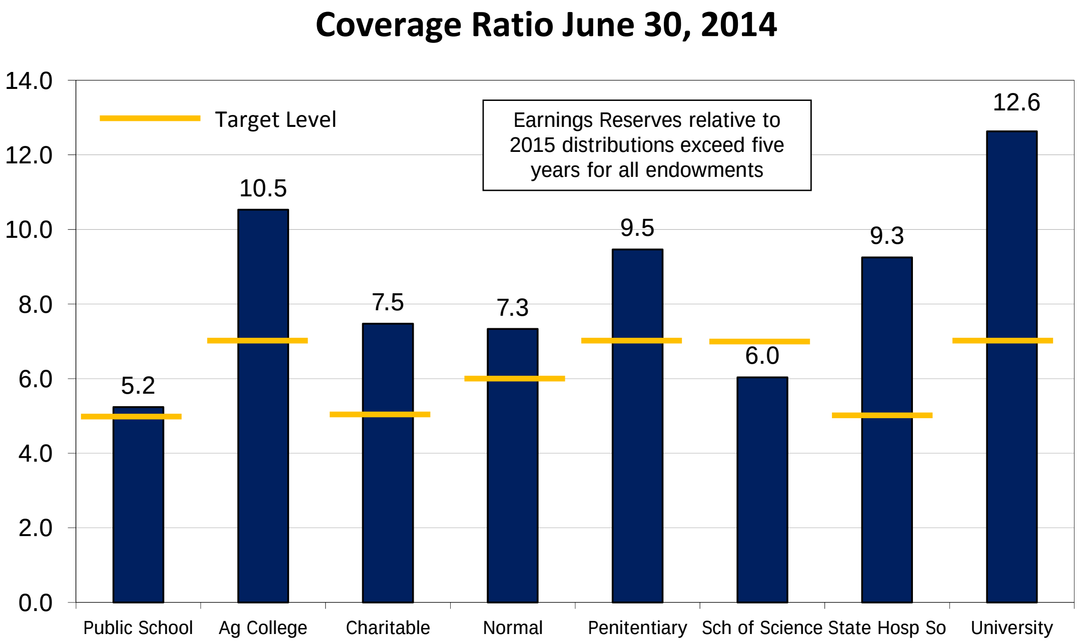
September 16, 2014

RECOMMENDED ENDOWMENT DISTRIBUTIONS - FY2016

(Fiscal year ended June 30 - $ in millions - Reserves for five funds at six-seven years)

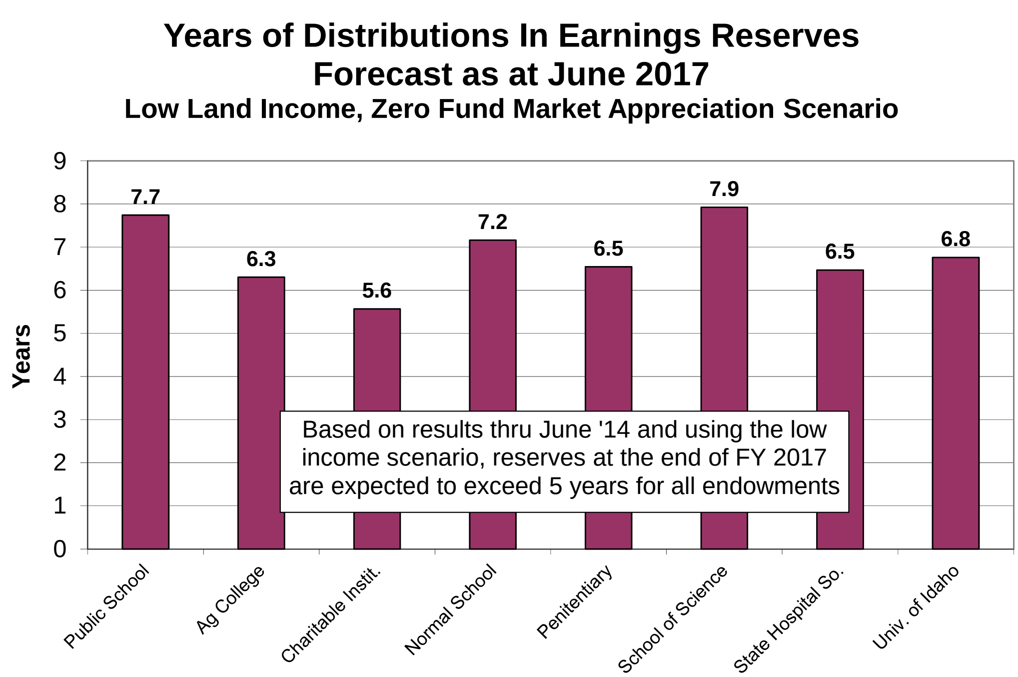
	Total	Public School	Ag College	Charit-able	Normal Schools	Peni-teniary	School of Science	State Hospital South	Uni-versity
FY 2014 Distribution	$ 48.8	$ 31.3	$ 1.0	$ 3.3	$ 2.7	$ 1.4	$ 3.3	$ 2.9	$ 2.9
FY 2015 Distribution	$ 52.0	$ 31.3	$ 1.2	$ 3.9	$ 3.1	$ 1.7	$ 3.9	$ 3.6	$ 3.3
Earnings Reserves status (as of 6/14)									
Earnings Reserve Policy (in years)	*5.0*	*5.0*	*7.0*	*5.0*	*6.0*	*7.0*	*7.0*	*5.0*	*7.0*
Years of reserves, after transfer	5.4	**5.0**	**7.0**	**5.0**	**6.0**	**7.0**	**6.0**	**5.0**	**7.0**
Earnings Reserve Balance (6/14)	$ 342.9	$ 163.8	$ 12.3	$ 28.8	$ 23.0	$ 16.2	$ 23.3	$ 33.5	$ 42.0
Permanent Fund - 3 Yr Avg Mkt Value	$ 1,224.5	$ 807.9	$ 22.5	$ 83.8	$ 70.8	$ 34.4	$ 84.2	$ 54.4	$ 66.4
Distribution % Per Policy	*5.1%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*5.0%*	*7.0%*	*5.0%*
2016 Distribution Calculation									
% formula, before transfers to Perm Fund	*$ 62.3*	*$ 40.4*	*$ 1.1*	*$ 4.2*	*$ 3.5*	*$ 1.7*	*$ 4.2*	*$ 3.8*	*$ 3.3*
Distribution constrained due to low reserves		*$ 32.8*					*$ 3.9*		
Distribution adjusted upward for transfers			*$ 1.3*	*$ 4.5*	*$ 3.6*	*$ 1.9*		*$ 4.6*	*$ 4.0*
2016 Distribution Recommendation	**$ 56.5**	**$ 32.8**	**$ 1.3**	**$ 4.5**	**$ 3.6**	**$ 1.9**	**$ 3.9**	**$ 4.6**	**$ 4.0**
% Change: 2016 vs. 2015 Distribution	8.7%	4.7%	10.7%	16.9%	14.8%	9.6%	0.0%	25.8%	20.7%
If Earnings Reserve > Target, consider Transfer to Permanent Fund									
ER balance (in years) pre-transfer to PF	5.5	4.1	10.9	6.9	6.5	9.4	5.5	8.8	12.6
ER balance (in years) post-transfer to PF	5.4	5.0	7.0	5.0	6.0	7.0	6.0	5.0	7.0
Recommended Transfer to Perm Fund	**$ 38.6**	**$ -**	**$ 3.2**	**$ 6.3**	**$ 1.4**	**$ 3.1**	**$ -**	**$ 10.7**	**$ 13.9**
Transfer % of Earnings Reserve	*11%*		*26%*	*22%*	*6%*	*19%*		*32%*	*33%*
Transfer % of Permanent Fund	*3%*		*14%*	*7%*	*2%*	*9%*		*19%*	*22%*

Coverage Ratio



The recommended increases in distributions for FY 2016 will modestly reduce the years of reserves. The EFIB recommends that any remaining excess be reinvested in permanent corpus.

Even under the "Low" revenue case, 2017 coverage ratios are strong



Land revenues are expected to cover at least half of the distribution, even in the "low" case

Net Land Revenues (to Reserves)

History and Forecast ($MM)

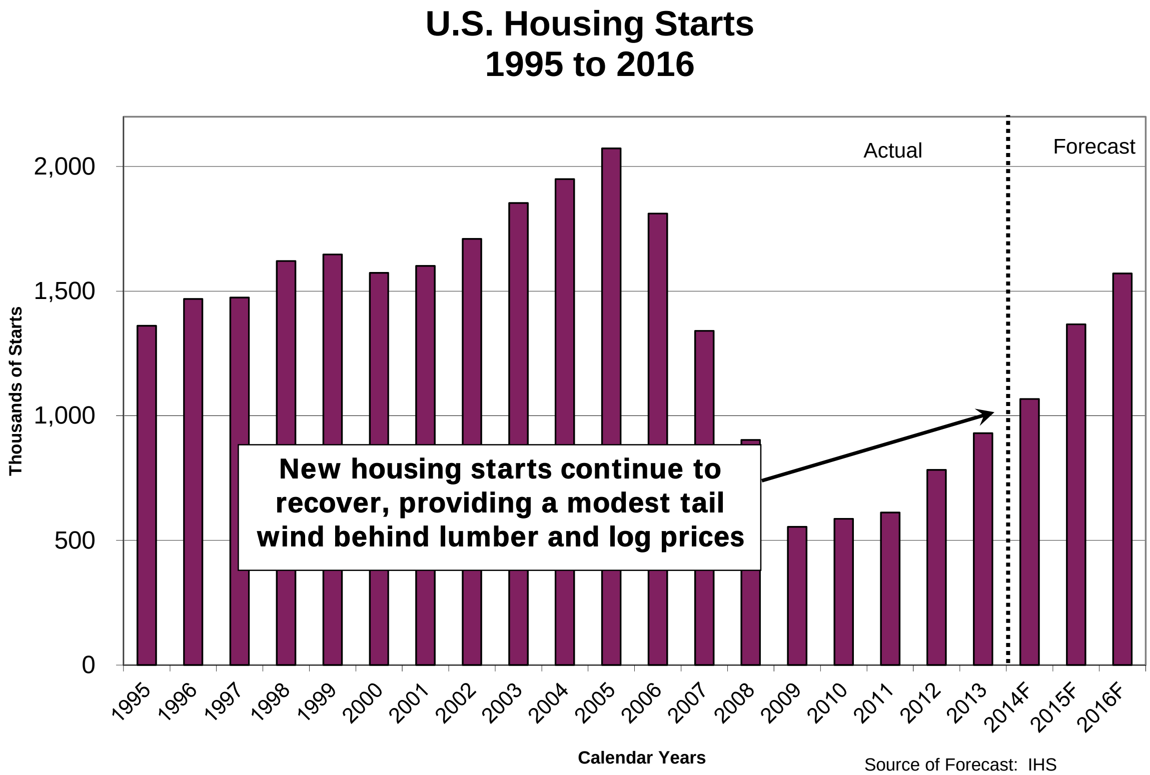
	Annual Average			*2016*	*Income as % of '16 Distribution*		
	Actual	*Forecast 2015-2019*		*Distri-*	*Actual*	*Forecast 2015-2019*	
Endowment	*'10-'14*	*Ave Case*	*Low Case*	*bution*	*'10-'14*	*Ave Case*	*Low Case*
Penitentiary	2.2	1.1	0.9	1.9	120%	60%	48%
Ag College	0.9	0.8	0.6	1.3	73%	62%	49%
University	3.6	2.6	2.2	4.0	89%	66%	54%
School of Science	2.8	2.9	2.3	3.9	73%	76%	61%
State Hospital South	3.8	4.0	3.4	4.6	82%	87%	75%
Charitable Institutions	4.3	4.2	3.5	4.5	96%	94%	77%
Public School	23.1	32.2	26.6	32.8	70%	98%	81%
Normal School	2.3	3.5	3.0	3.6	63%	97%	83%
Simple Average					*83%*	*80%*	*66%*

**Source: Dept. of Lands, 7/14 - "Ave" Case is the average of the Low and High (not shown) scenarios provided*

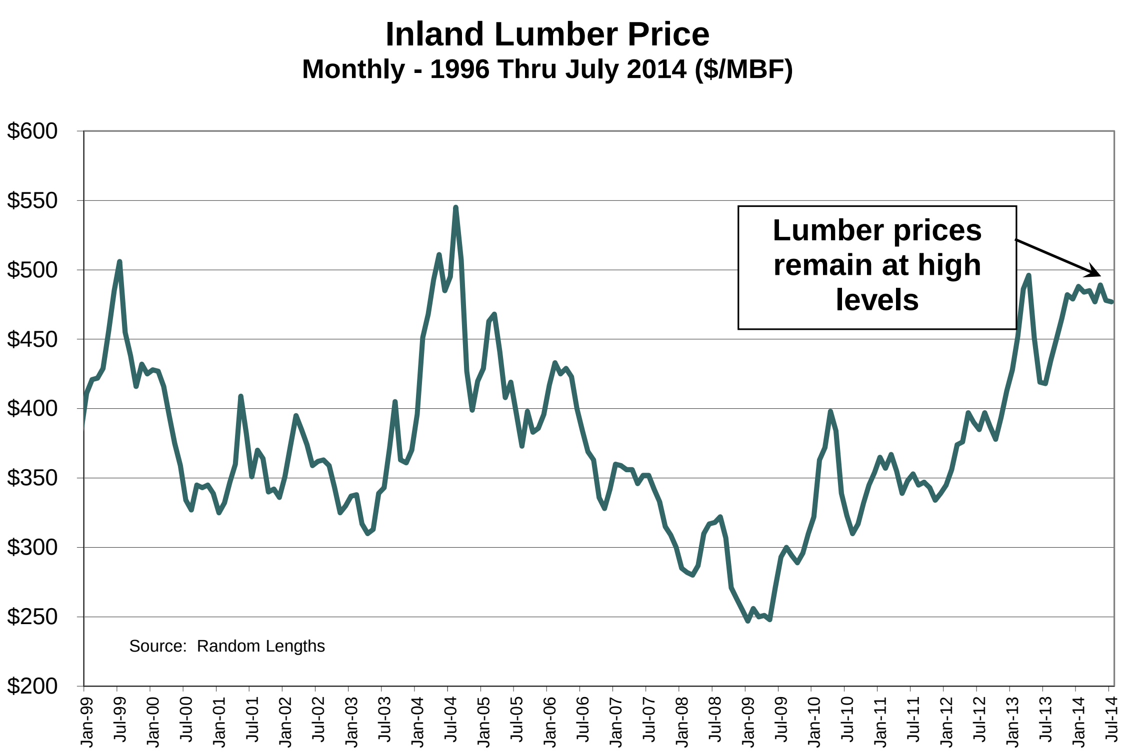
All endowments exceed 48% of recommended distribution

Summary – Land Revenue Forecast

Net Land Revenues	***Public School***	***Ag College***	***Charit-able***	***Normal School***	***Peniten-tiary***	***School of Science***	***State Hospital***	***Univer-sity***
Projected Average ($MM) *(10 yrs 2015-2024)*	$ 30.0	$ 0.8	$ 3.9	$ 3.1	$ 1.2	$ 2.6	$ 4.1	$ 2.5
Projected vs. Permanent Fund *(% of FY14 value)*	3.3%	3.3%	4.1%	3.8%	3.4%	2.7%	7.4%	3.9%
Projected vs. Distribution *(% of FY15 distrib.)*	96%	65%	102%	97%	70%	66%	113%	75%
Historical Average ($MM) *(10 yrs 2005-2014)*	$ 24.7	$ 0.9	$ 3.6	$ 2.6	$ 1.8	$ 3.2	$ 3.9	$ 3.4
Projected/Historical *(% Over (Under))*	22%	-14%	9%	15%	-32%	-21%	6%	-28%
Historical ± Variation % in Net Revenues *(2 std deviations)*	50%	160%	90%	100%	130%	110%	90%	110%
Cabin site sales/year	$ 8.7			$ 0.7			$ 1.7	



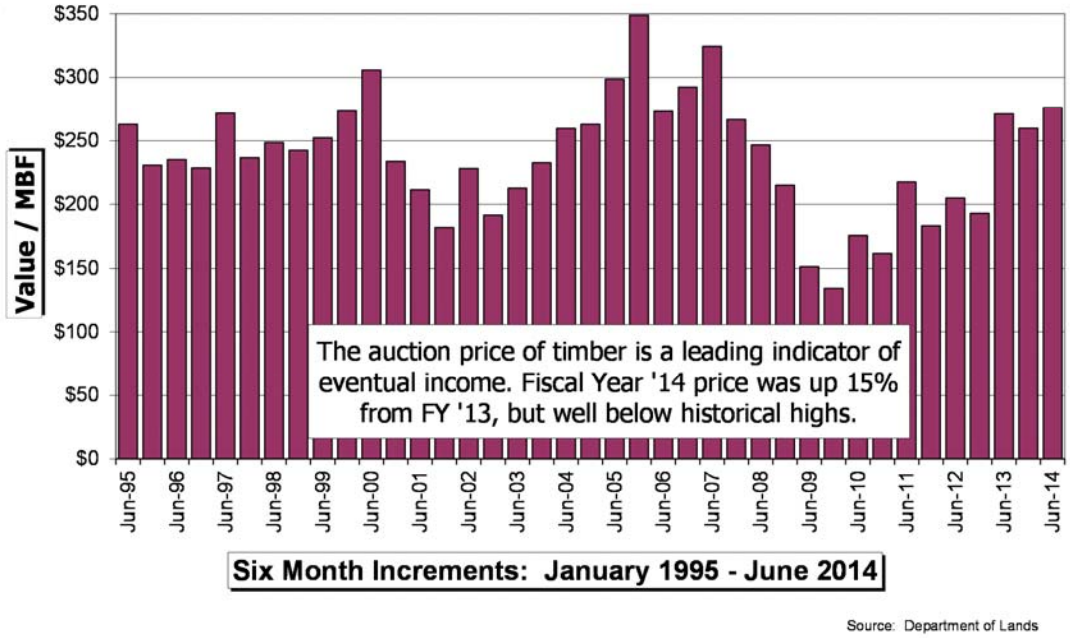
Lumber demand from new housing is growing



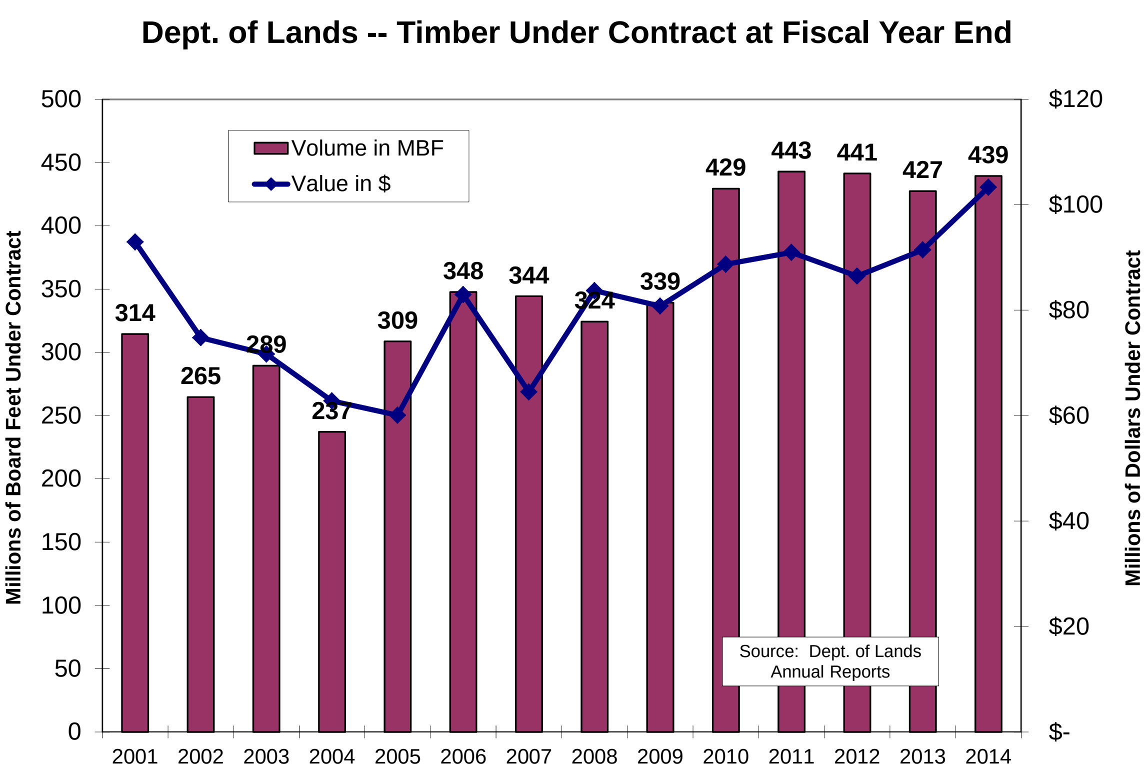
Lumber prices remain strong

Average Stumpage Price

(Auction Price)



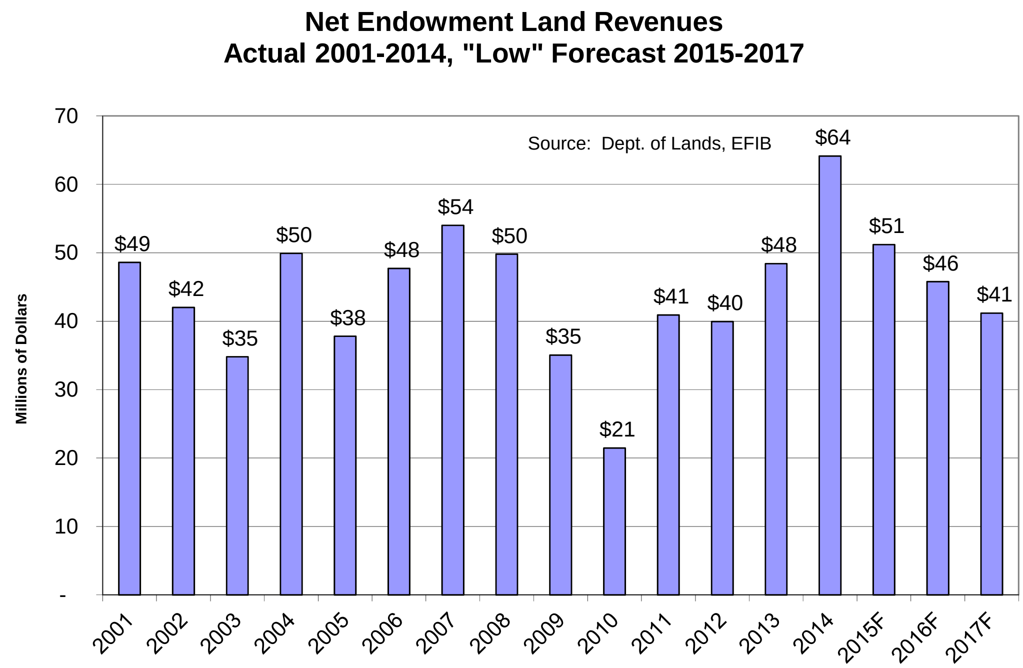
Log prices continue to be strong

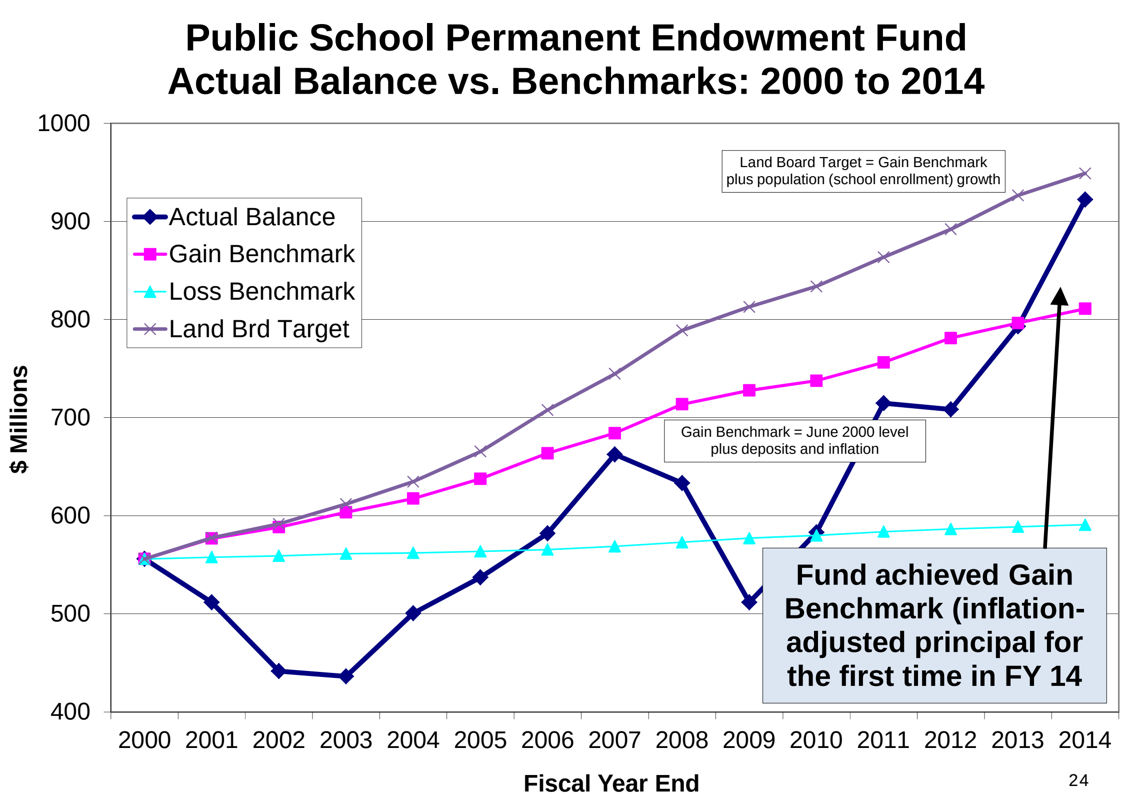


Includes Capitol Permanent Fund

Strong pre-sold timber volume at June, 2014

"Low" forecast is a "reasonable" worst case scenario given high contracted volumes





Six Permanent Fund's have met the Land Board's objective

Permanent Fund in Excess of Land Board Target

(inflation + population)*

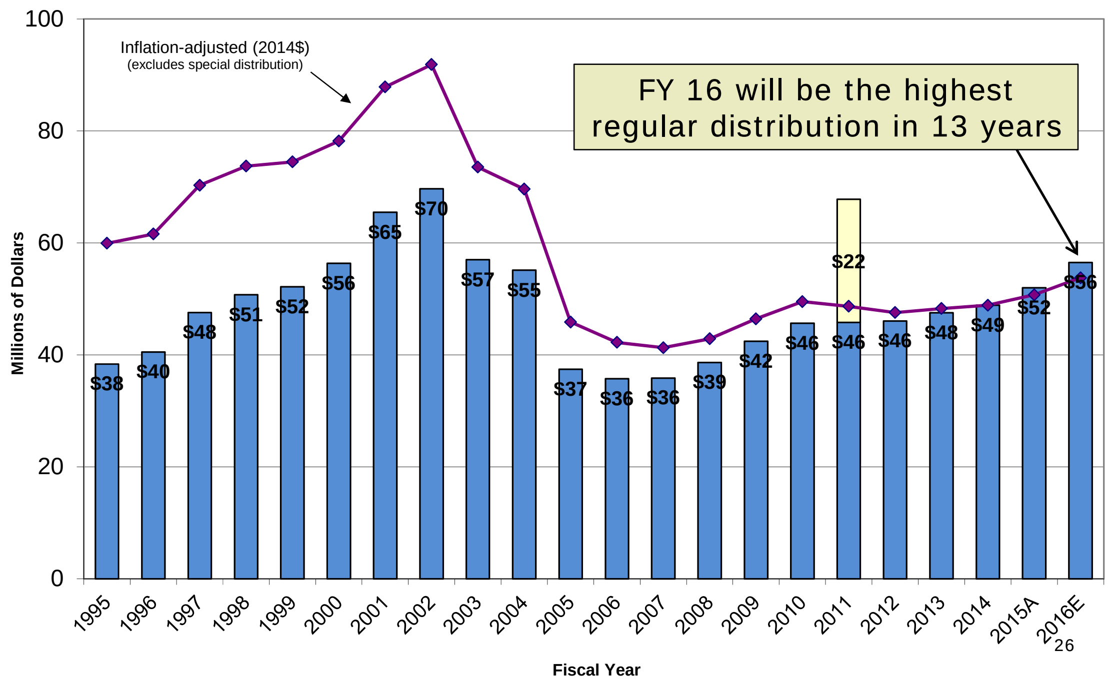
Including planned transfers	***$MM***	***% of Perm. Fund***
State Hosp. South	24.9	37.8%
Penitentiary	6.2	16.3%
Charitable Instit.	6.6	6.5%
University	4.4	5.6%
Ag College	0.3	1.2%
School of Science	0.1	0.1%
Normal School	(2.1)	(2.6%)
Public School	(26.6)	(2.9%)
Total	13.8	1.0%

* Enrollment for Public School, Idaho population for all other endowments

- The objective is to grow permanent corpus at the rate of inflation and population growth
- 6 endowments achieved that in FY 2014 and 2 are very close
- This supports growth in sustainable distributions in FY 2016 and beyond

Endowment Distributions To Beneficiaries
1995-2016 Actual/Estimated, Net of General Funds
Nominal and Inflation-Adjusted

(Net of General Fund contributions 1995-2000, 2006; includes special Public School distribution in 2011 of $22M



Distribution Policy gives priority to the current beneficiary when income is weak (e.g. '01- '09), the future beneficiary when income is strong ('10- '14)

Distributions as a % of Real Income*

	Nine Years <u>*2001-2009*</u>	*Five Years* <u>*2010-2014*</u>	*Total* <u>*2001-2014*</u>
Public School	177%	31%	63%
Normal School	125%	24%	53%
School of Science	136%	23%	52%
University	115%	20%	45%
Charitable Instit.	186%	20%	44%
Penitentiary	110%	18%	41%
Ag College	133%	22%	39%
State Hosp. South	62%	20%	35%
Weighted Average	151%	27%	56%

* Net Land Revenue and Net Fund Return after inflation (Gain Benchmark)

Policy to minimize reductions temporarily pushed payout above sustainable levels

Used strong income to rebuild reserves, Perm fund

Distribution Policy Summary

The Land Board has adopted the following principles:

- Distribute 5% of the 3-year average value of the Permanent Fund each year (7% for State Hospital),
  - Adjusted for reserves, transfers and any other relevant factors
- Maintain Earnings Reserves of at least five years of distributions
- Consider transferring any excess reserves back to the Permanent Fund each year

Source: Land Board Asset Management Plan

Distribution Policy:
Approved Priorities

The Land Board has adopted the following objectives/priorities for determining distributions:

1. Avoid reductions in total endowment distributions
2. Maintain adequate Earnings Reserves to protect distributions from temporary shortfalls in fund returns and land revenues
3. Grow distributions and permanent corpus faster than inflation and population growth

Source: Land Board Asset Management Plan

Caveats for Distributions

- Forecasted coverage ratios under the “low” scenario are at acceptable levels for all endowments thru FY 2017, and probably beyond
- Therefore, a reduction in distributions in FY 2017 or FY2018 is not likely, but may be necessary if, for example:
  - Future returns on the fund are materially negative
  - Hardship extensions are offered on existing timber contracts
  - A material number of existing timber contracts are abrogated by purchaser bankruptcies
  - Timber prices fall below the level assumed in the “low” revenue scenario
  - Unforeseen environmental issues limit timber harvesting