

Impact of a Tax Credit for College Savings

Prepared for

TIAA-CREF and ScholarShare

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(Update)

Presented by

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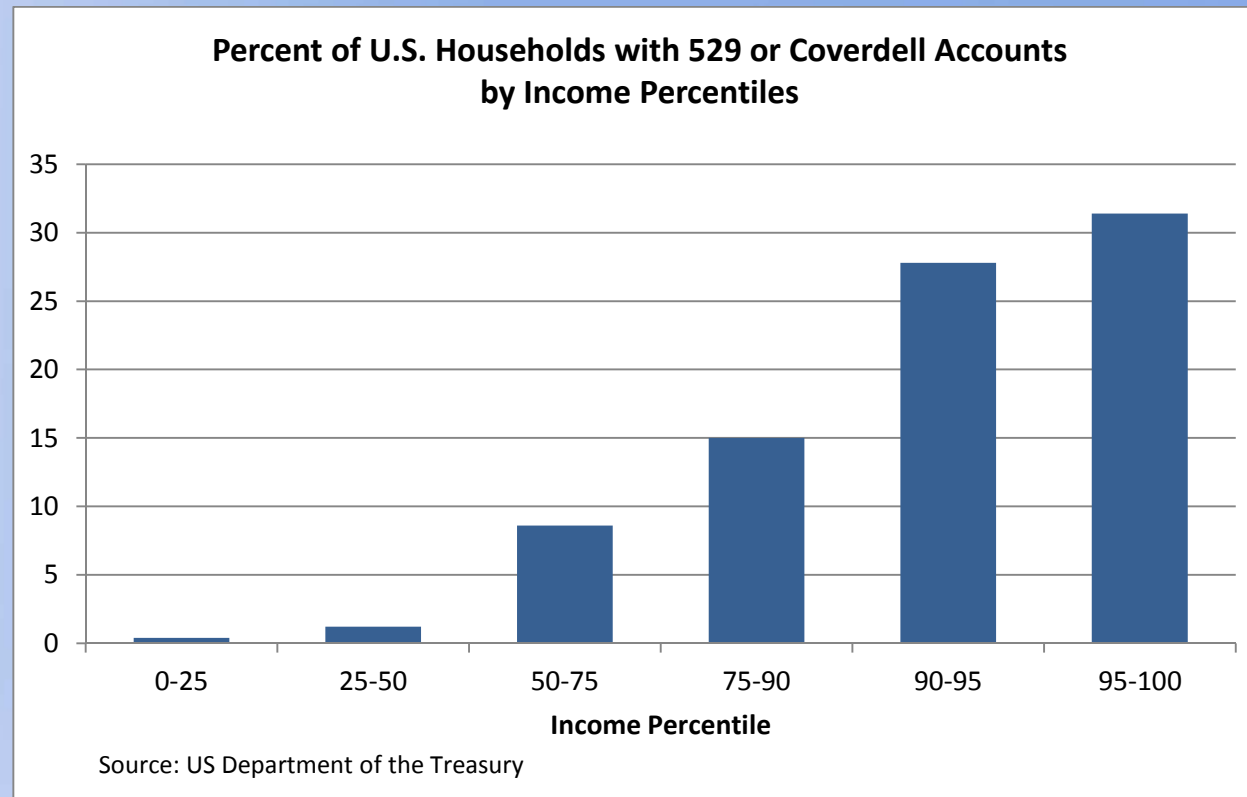
Presentation Overview

- Background on 529 plans, including what other states do
- Incentive effects of creating a tax credit for college savings
- Modeling the impact of a tax credit for college savings
- Conclusions

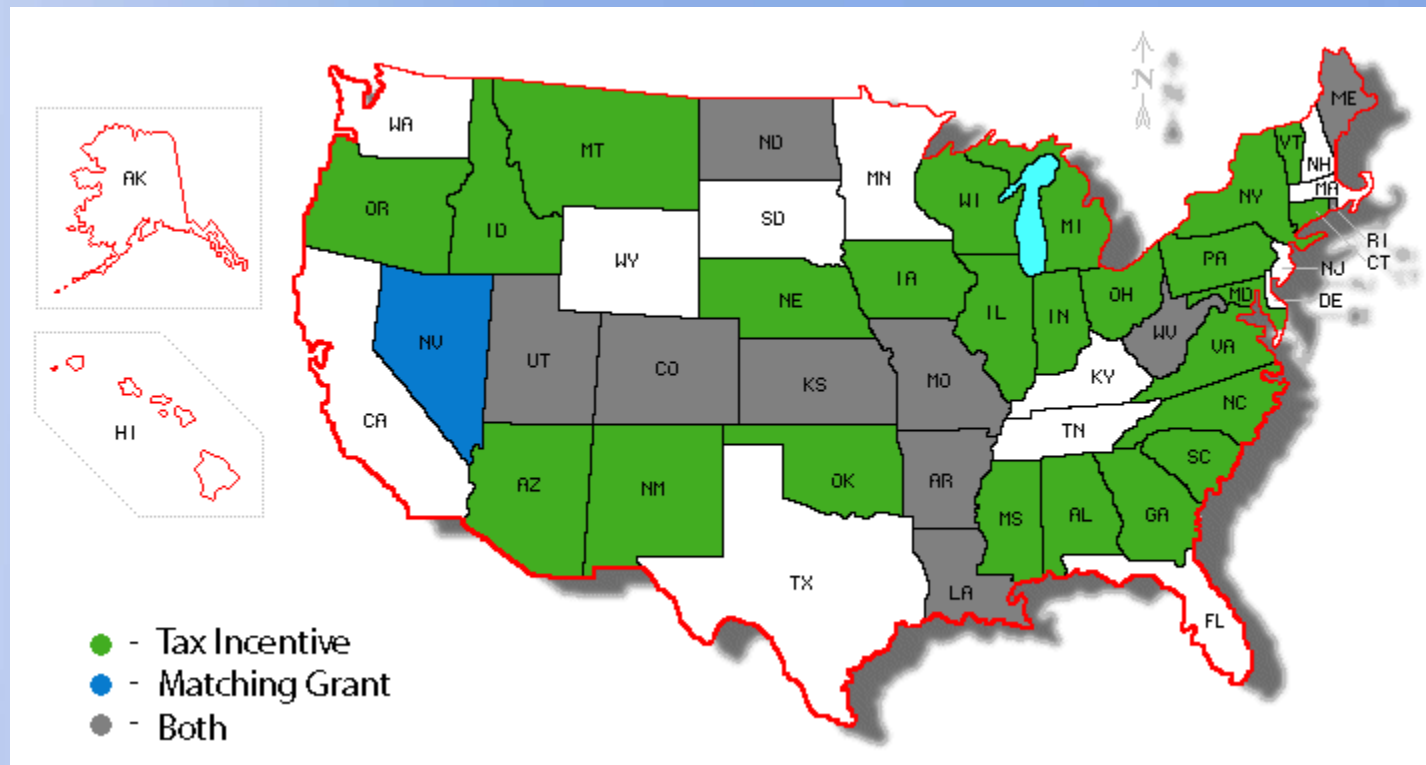
Overview of 529 plans

- 529 plans created to help families save for college
- Gains accrue free from federal and state income tax
- In many states, including California, contributions are made after tax

Participation in 529 Plans Varies with Income



Many States Offer Incentives

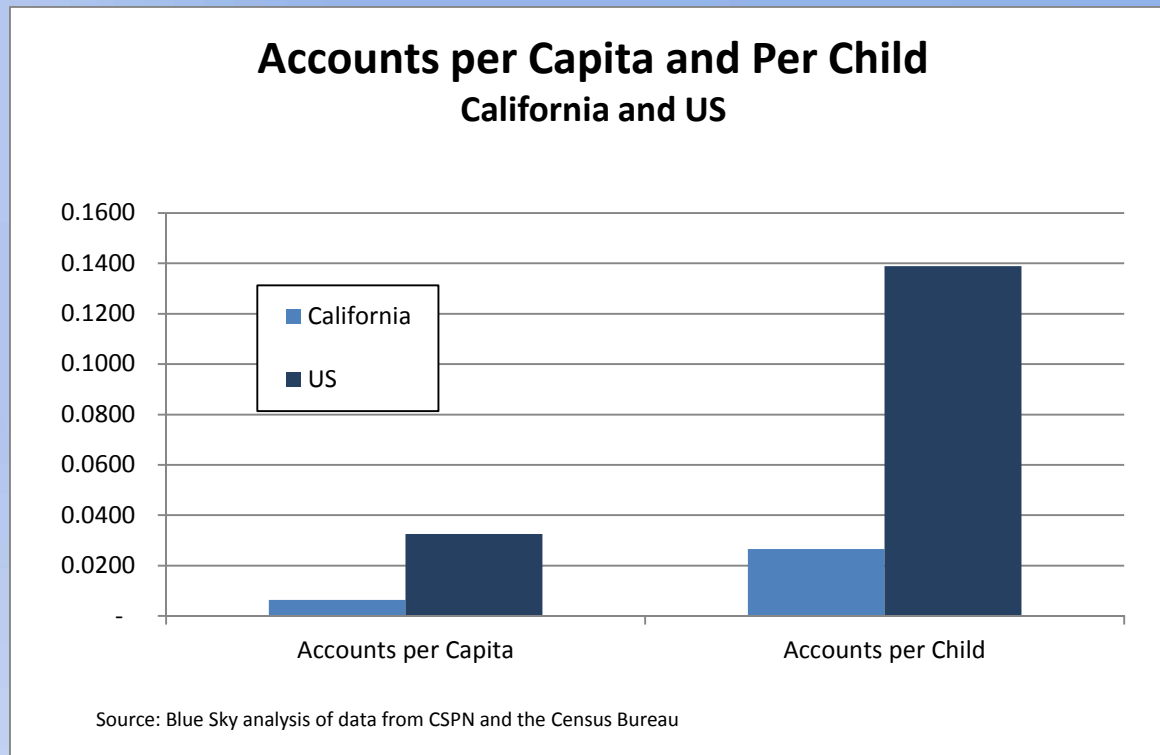


California's Experience

- **Californians accumulate less debt on average**
 - In 2009, the median debt accumulated by California students was about 88% of the median debt accumulated by all students in the country, largely due to the large number of California students in low-cost public education
- **But, the share of students with loans has been increasing**
 - The share of first-time students in all California colleges who take out loans has risen from a third to 45% in the last ten years, corresponding to a period of rising tuition due to reduced state funding
- **And, average student debt has been increasing**
 - According to PPIC, between 2005 and 2010, average loan amounts among full-time freshmen rose 36%, after adjusting for inflation

California is one of 15 states that do not offer any sort of tax incentive or matching program for participation in a 529 plan

- (Perhaps as a result) participation in California's 529 plan lags the national average



Likely Effects of a Refundable Tax Credit to Encourage College Savings

- More participants in the ScholarShare Program
- Increased contributions
- Increased likelihood that Californians attend and complete college
- More Californians would move their account from other states' plans

Economic effects

- **Short-term reductions in economic activity**
 - In the short run, increased savings results in reductions in economic activity as resources are moved from consumption to savings
- **Long-term increases in economic activity**
 - In the long run, increased savings and the investment returns on those savings results in reductions in student debt load after attending college
 - The resulting lower debt payments contribute to increased economic activity, as students have more to spend in the state's economy
 - Increased college going would also boost economic activity

Research on the Effects of State Tax Incentives

- Michigan SEED Experiment – low-income families were offered a 1:1 match on contributions to Michigan’s 529 plan
 - 22% of families made contributions
 - But, total savings increased by just 45%, with 55% coming as a reduction in other savings
- Oklahoma SEED Experiment – Similar to MI experiment; low-income participants were offered a match for contributions to OK’s 529 plan
 - 16% of participants opened an account
 - Participants saved more than those in the control group who were not eligible for a match, though amounts saved were small (about \$47 on average)

Modeling the Effects of a State Tax Incentive for College Savings

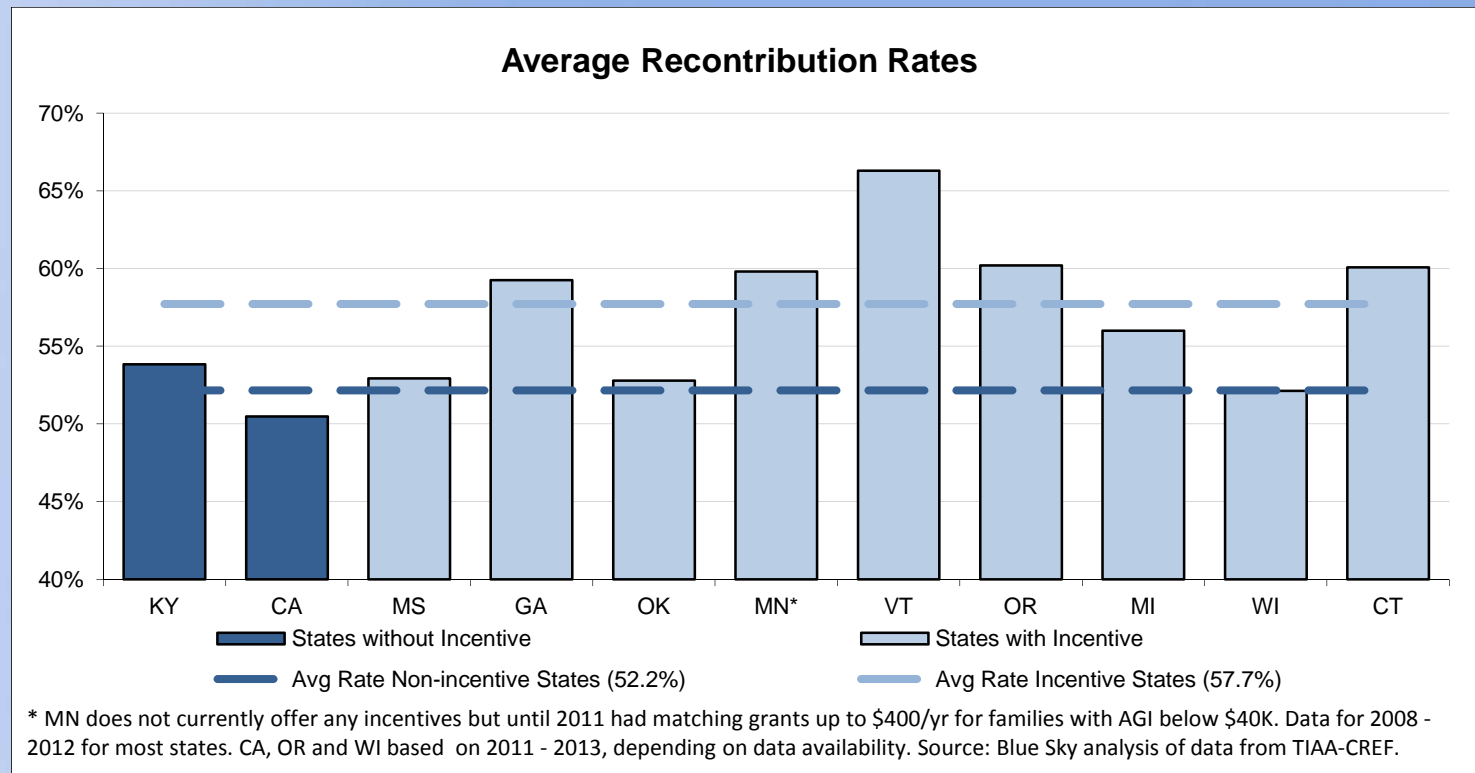
- Building on the available empirical research, we developed a model to estimate the effects of a tax credit for college savings
- The model estimates
 - Account growth
 - Increase in contributions
 - Change in student debt
 - Increase in college going
 - Economic effects
 - General Fund impact

Model's Empirical Foundations

- Responsiveness of families to a tax credit based on evidence from research on retirement savings
- This research suggests that:
 - Savers respond to matching incentives
 - Larger incentives are correlated with more savings
 - The higher the income of the saver, the lower the response to the incentive (since higher income people are generally already saving)
 - Overall increase in participation from such incentives of about 5% to 20%, depending on income

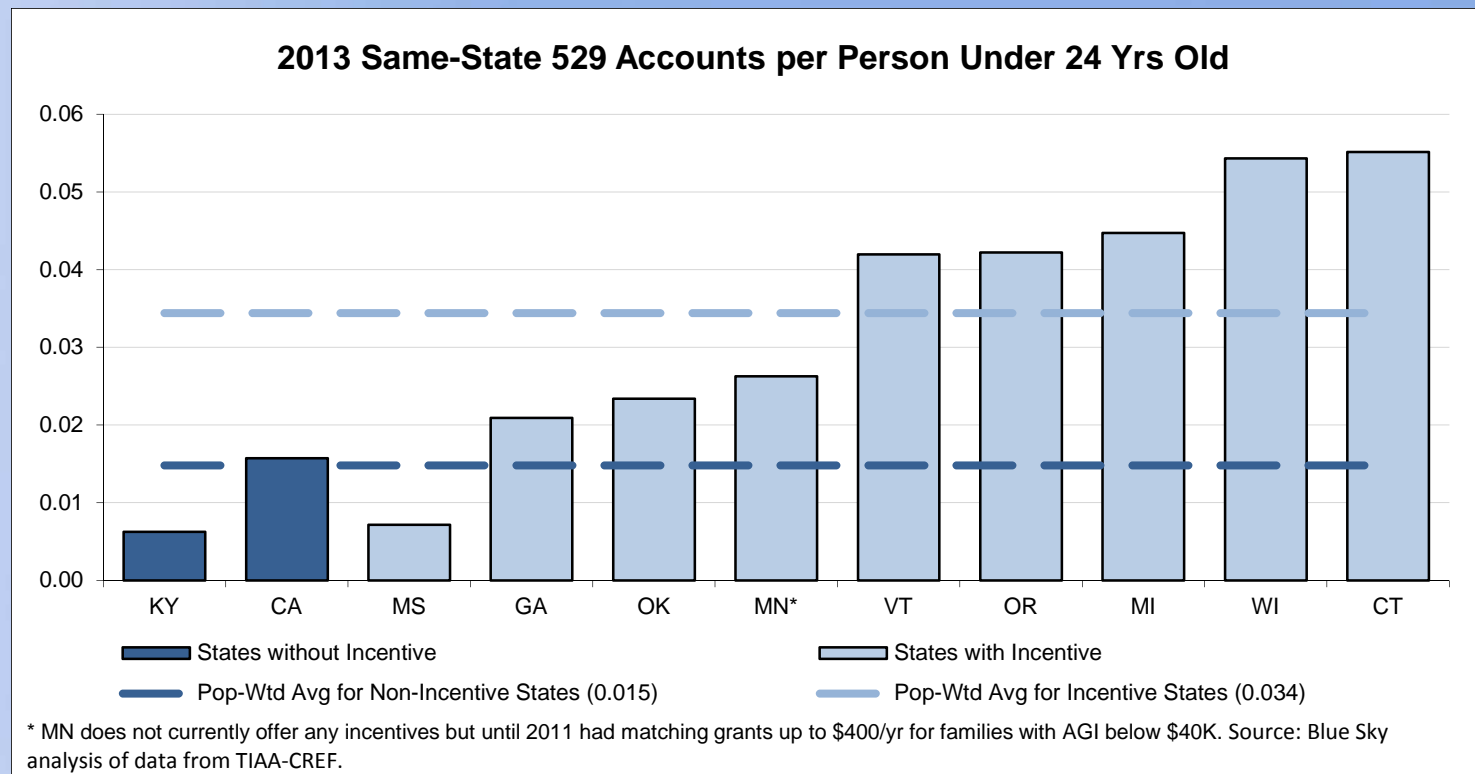
Model's Empirical Foundations, cont.

- Evidence from college savings data in states with and without incentives



Model's Empirical Foundations, cont.

- Evidence from college savings data in states with and without incentives



Estimates of the % of Existing 529s Out of State

- Hart Survey
 - Survey of California households with children regarding college savings
 - Results imply that approximately 36% of accounts are out of state
- Comparison to National Average
 - CSPN data tracks accounts in each state and nationally
 - If Californians overall own accounts (in CA and other states' plans) at the national average rate, results imply that 80% of accounts are out of state
- Comparison of data for incentive and non incentive states
 - Comparing data for TIAA-CREF managed plans in states with and without incentives
 - Results suggest that if Californians overall own accounts at the average rate among incentive states, approximately 54% of accounts are out of state

Data Sources

- ScholarShare historical data for number of new accounts, total accounts, asset balance, contributions, account holders, accounts with CA addresses vs. out-of-state addresses, etc.
- Re-contribution rates for 529 accounts in states with and without state incentives for 2008-2013 (provided by TIAA-CREF)
- Hart Research Associates 2012 and 2013 survey data (provided by TIAA-CREF)
- California 2011 tax filing data by income category for joint, single, head-of-household, and married (filing separately) returns from the Franchise Tax Board
- US Census data for CA households regarding household size, number of children, etc.
- US Department of Education data regarding the percentage of college graduates receiving Associate's Degrees vs. Bachelor's Degrees
- California General Fund data from the Department of Finance (DOF)
- California Economic Output data from the Bureau of Economic Analysis (BEA)
- Earnings by educational attainment from the College Board (from 2012 Census data)
- IMPLAN data to estimate impact of changes to savings on statewide economic output
- Sallie Mae 2013 survey data regarding college savings activity
- Numerous academic studies and peer-reviewed articles

Scenarios

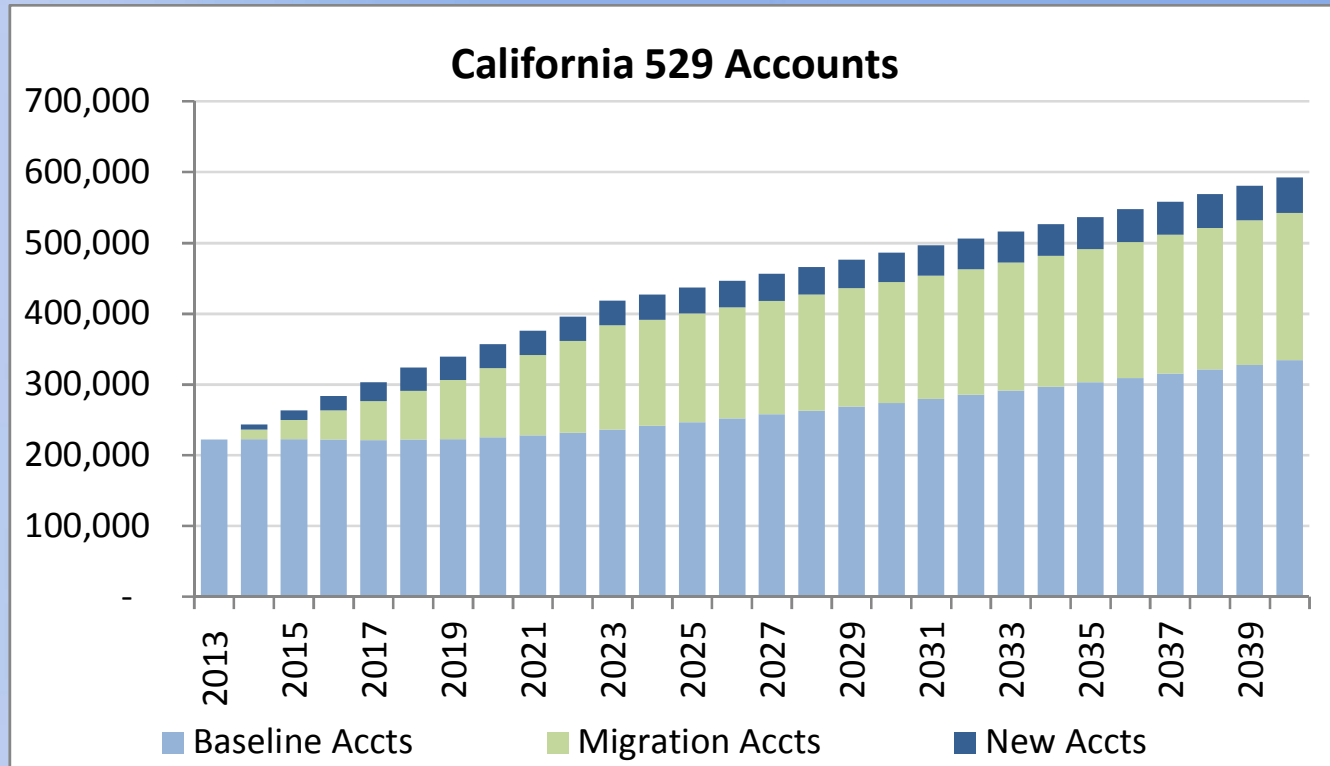
- Refundable tax credit of 20% of amount contributed, up to \$2,500 for a maximum credit of \$500 per household (except as noted below)
- Scenarios modeled:
 - A. No income limits
 - B. Income limited to \$75K single/\$150K Joint
 - C. Income limited to \$50K single/\$100K Joint
 - D. Phase out, no income limits - Credit amount and match reduced from \$500/20% to \$400/16% for incomes between \$75K and \$150K; tax credit amount reduced to \$300/12% for incomes above \$150K
 - E. Phase out, income limits - Tax credit phased out (by reducing amount) by \$75K single/\$150K Joint
 - F. Phase out, income limits - Tax credit phased out (by reducing amount) by \$100K single/\$200K Joint

Results

- Our modeling suggests that a refundable tax credit for college savings would
 - Modestly decrease short term economic activity
 - More substantially increase longer-term economic activity
 - Decrease student debt
 - Increase college going
 - Increase General Fund costs, which would be partially offset by increases in economic activity

Number of Accounts Would Increase

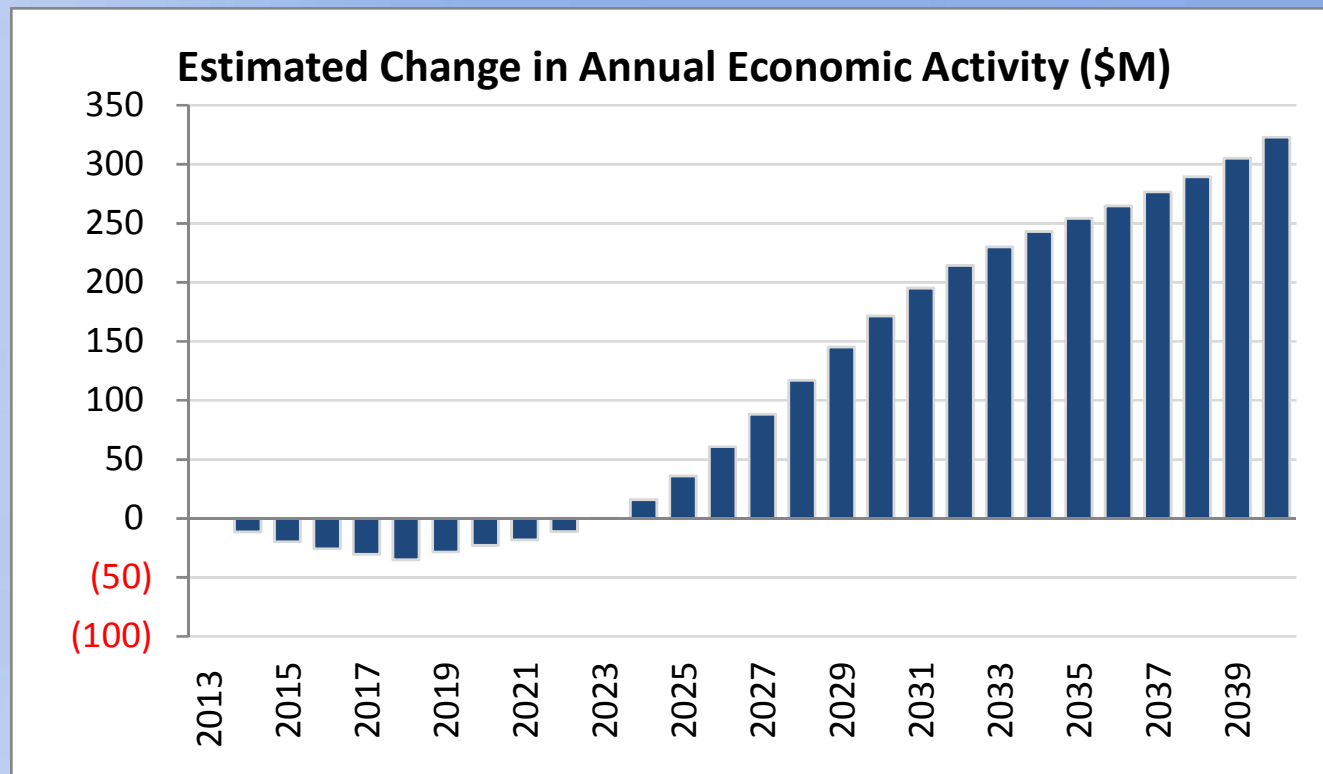
(Scenario B - \$75/150K Income Limit)



Note: Includes in-state ScholarShare accounts only.

Economic Activity Would Increase Over Time

(Scenario B - \$75/150K Income Limit)



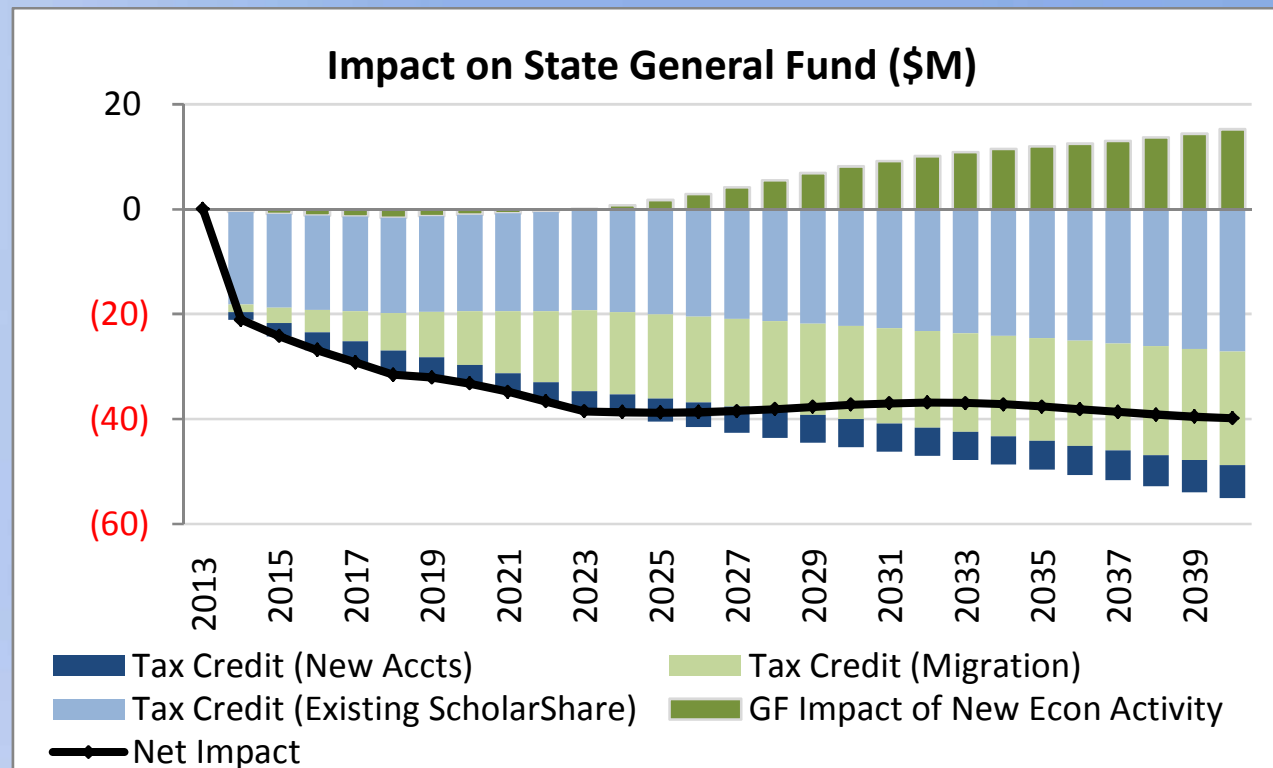
Other Effects

(Scenario B - \$75/150K Income Limit)

- **Number of College Graduates Would Rise**
 - Over 20 years, more than 8,500 additional students would graduate from college
- **Student Debt Would Decrease**
 - Over 20 years, total student debt would decrease by nearly \$600 million

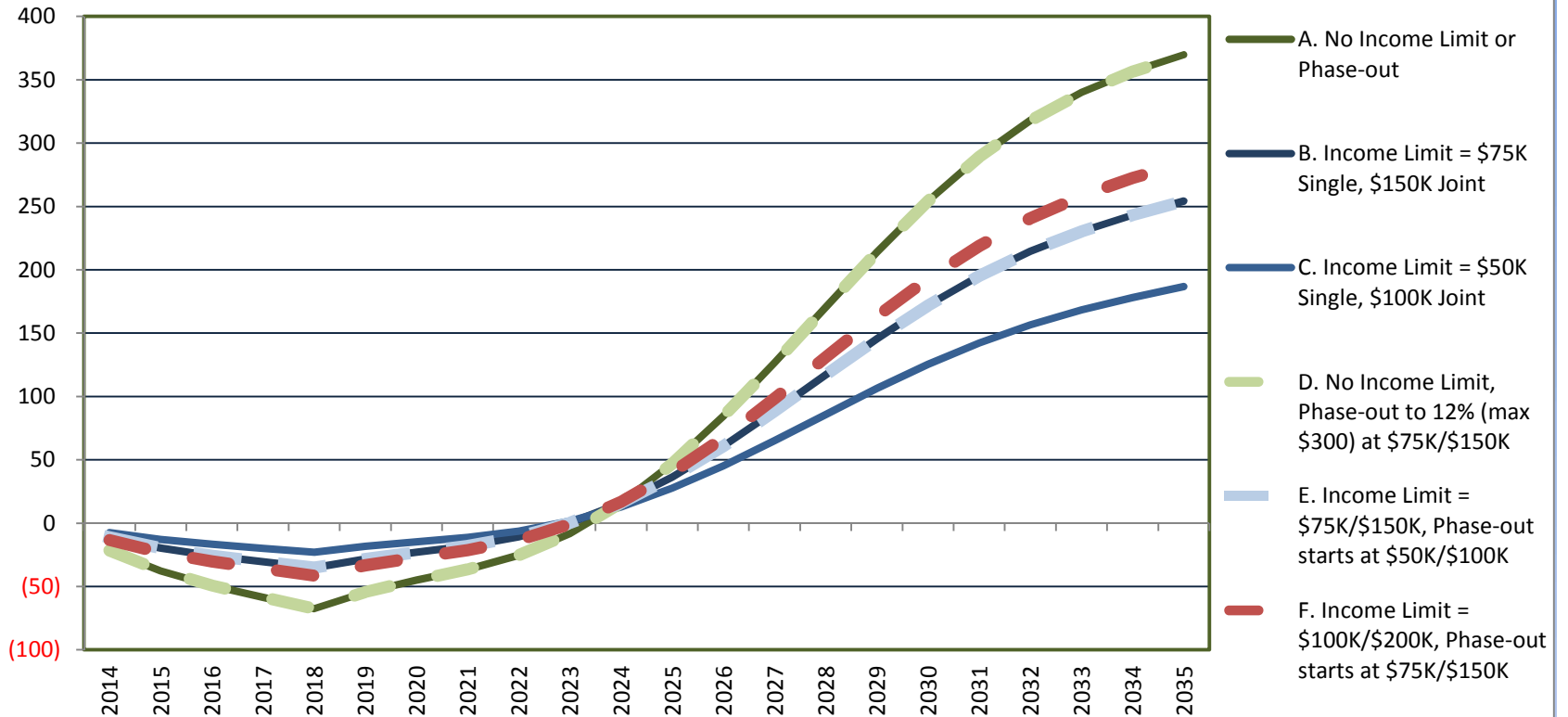
General Fund Costs Would Be Partially Offset

(Scenario B - \$75/150K Income Limit)

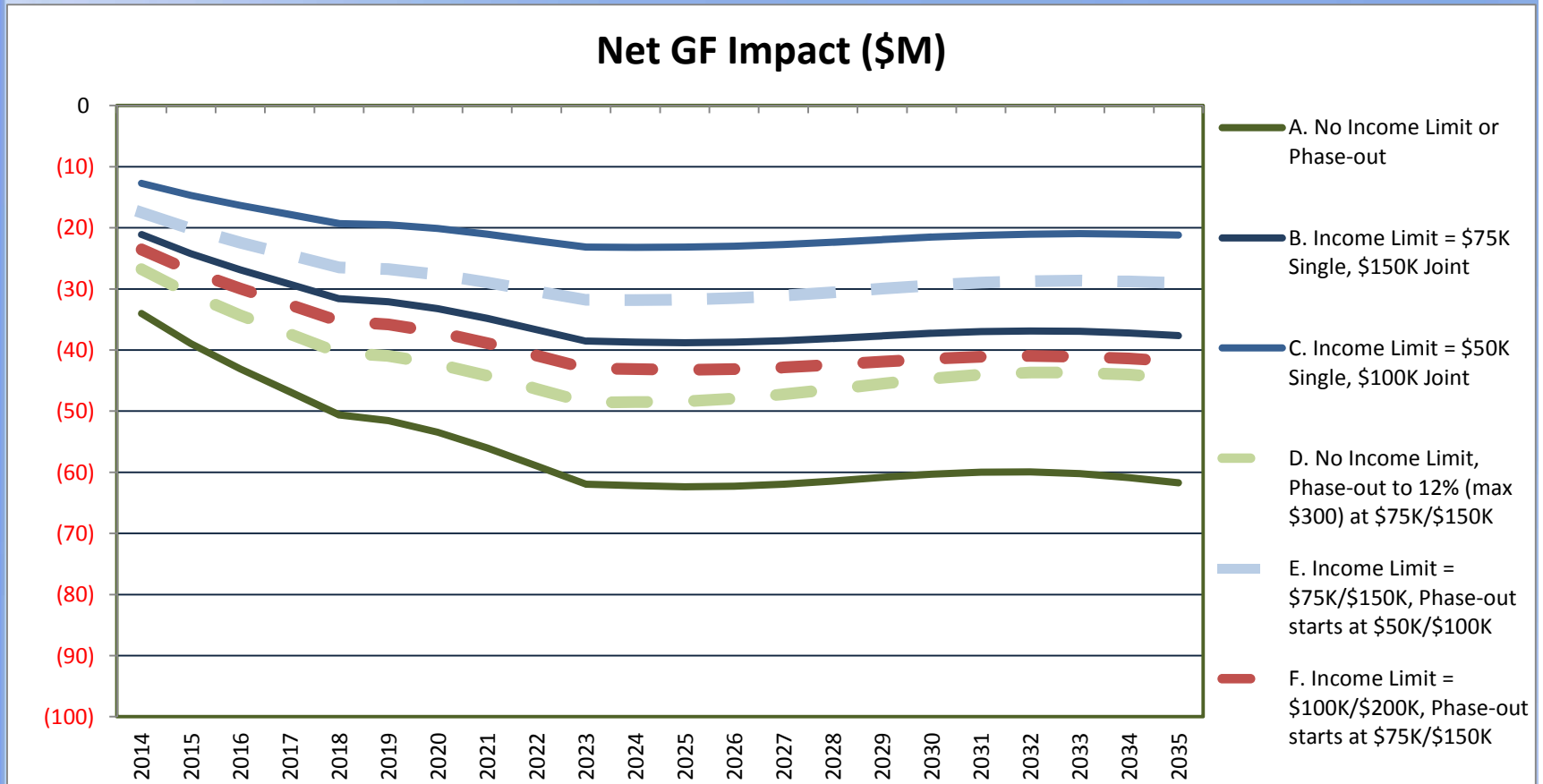


Scenarios Compared: Economic Impacts

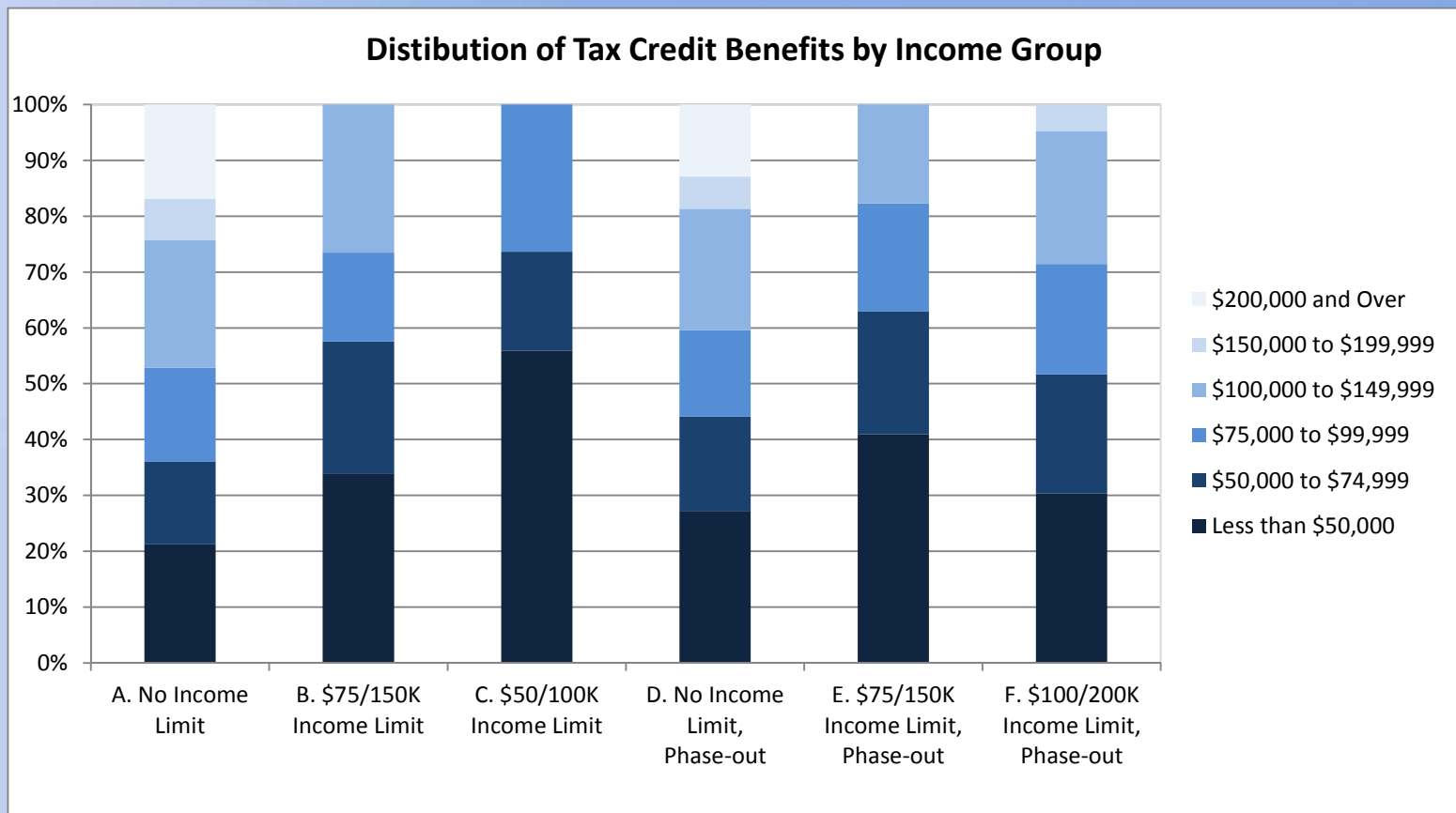
Change in State Output (\$M)



Scenarios Compared: General Fund Impact

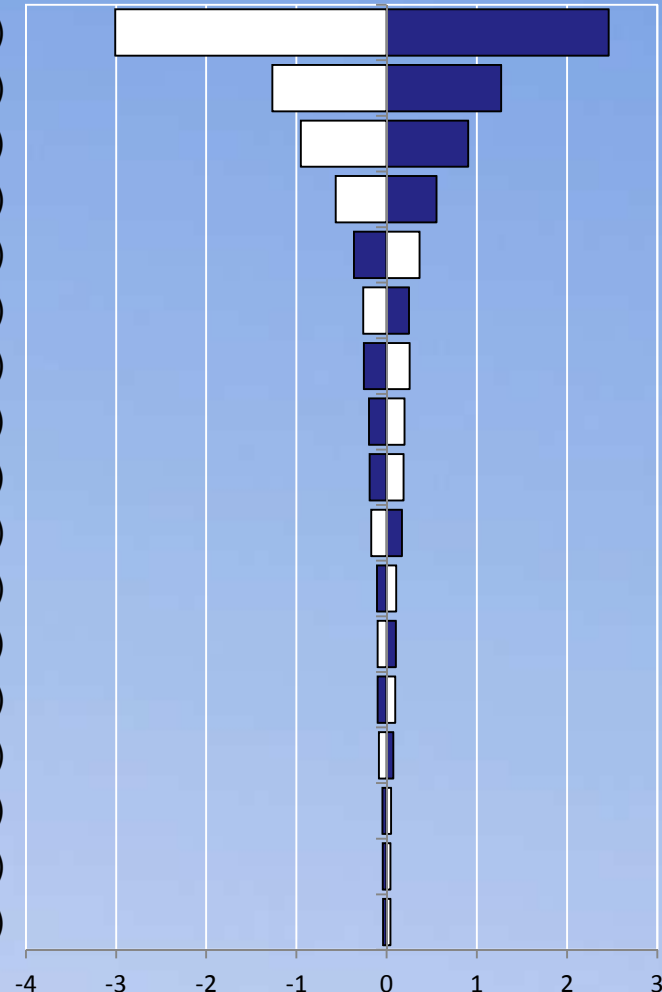


Scenarios Compared: Benefits by Income Group



Sensitivity Analysis: Impact of Changing Model Assumptions +/-10%

Percent of existing 529s out-of-state	(50%)
Final Level of take-up/penetration - Migration	(80%)
Re-contribution rate w/credit	(57.7%)
Annual baseline participant growth rate	(2.0%)
Years to full take-up/penetration - Migration	(10)
Tax Credit Impact - Impact from any tax credit	(24.3%)
State GF impact per \$ of state output	(0.047)
Percent of 529 beneficiaries who end up in CA	(90%)
Reduction in other savings (%)	(55%)
Final Level of take-up - New Accounts	(100%)
Marginal Increase in college attendance	(27%)
Student loan average term (years)	(10)
Tax Credit Impact - Impact per \$K Income	(-0.21%)
Years to full take-up - New Accounts	(5)
Student loan interest rate	(7.0%)
Multiplier for economic impacts	(2.00)
Investment Return Annual Avg.	(6.0%)



(Scenario B: 20-year Avg Net General Fund Impact = \$-34.3M)

Conclusions

- Creating a refundable tax credit for contributions to California's ScholarShare plan would
 - Increase the number of participants and the amount saved for college
 - Increase the number of Californians attending and graduating from college
 - Increase economic output and jobs in California
 - Result in an annual average state General Fund cost of between \$21 and \$57 million, depending on how the tax credit is structured and who is eligible
- Cost of program is driven by the large number of Californians currently saving in another state's 529 plan who would likely open a ScholarShare account