

MAXIFI[®]

The Economics Approach to Financial Planning

a Five-Part Presentation to Dimensional Fund Advisors

Rick Miller

*Founder and CEO, Sensible
Financial Planning*

Laurence Kotlikoff

*Professor of Economics, Boston University
President, Economic Security Planning, Inc.*

Outline of Talks

1. Consumption Smoothing
2. MaxiFi Planner – Illustrating the Economics Approach
- 3 . Pricing Lifestyle Decisions – An Example: When Can I Retire?
4. Secrets to Maximizing Lifetime Social Security Benefits
5. Finding Alpha – Raising Households' Living Standards at No Risk

Finding Alpha

- Alpha references a higher sure component to your investment return
- In efficient financial markets, Alpha is zero, i.e., "*You can't beat the market.*"
- However, there are entirely safe ways to raise your living standard
- Economics-based planning, with its living standard focus, can find these ways

Finding Alpha - Examples

1. Don't borrow for college
2. Find a higher paying career/job
3. Optimize retirement account contributions (Roth versus non-Roth)
4. Collect the employer 401(k) match
5. Marry or otherwise share housing
6. Own rather than rent and garner the home-ownership tax break
7. Invest in paying off high interest debts
8. Marry for money, divorce only if it pays, and divorce like an economist

Finding Alpha - More Examples

9. Delay retirement
10. Optimize retirement account withdrawals, e.g., Roth conversion
11. Move within state for cheaper housing
12. Relocate states to lower taxes
13. Maximize lifetime Social Security benefits
14. Downsize your home
15. Free trapped home equity
16. Annuitize some of your assets

Using MaxiFi to Find Alpha

Two examples:

1. A retirement makeover for an early retiree who saved far too little
2. An 18-year-old decides whether to become a doctor or a plumber

Example I: A Retirement Makeover

John Adams is 62, Retired, Single, North Carolinian, With

1. \$200K in his checking account
2. \$500K in his traditional IRA, which he'll begin tapping at 72
3. \$2,500 in monthly Social Security benefits, which he just started
4. A \$700K house with a 4% 200K, 10-year mortgage and \$15K in annual expenses

John's Lifetime Discretionary Spending: \$661,875

Lifetime Balance Sheet

Lifetime Income

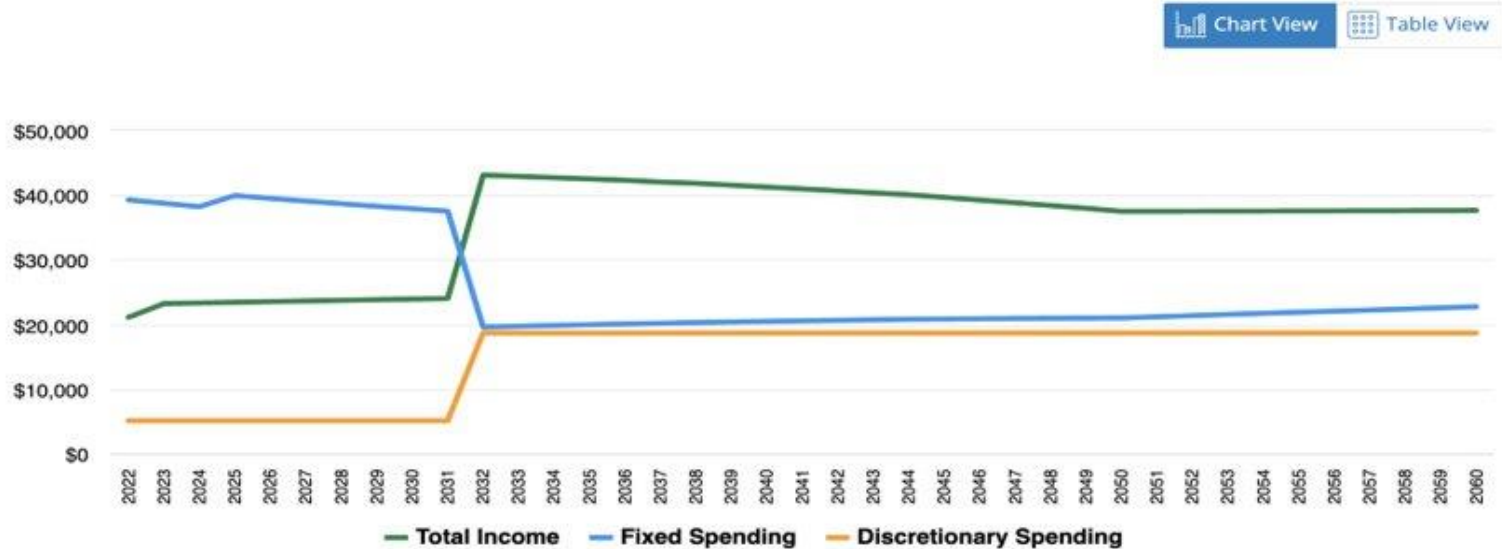
Labor Earnings	\$0
Social Security Benefits	\$1,031,904
Pensions and Annuities	\$0
Retirement Account Withdrawals	\$508,750
529 Account Withdrawals	\$0
Reserve Fund Assets	\$0
Real Estate Income	\$0
Special Receipts	\$0
Regular Assets	\$203,500
TOTAL	\$1,744,154

Lifetime Spending

Housing Expenses	\$868,111
Other Expenses	\$0
Federal and State Taxes	\$55,504
Retirement Account Contributions	\$0
529 Contributions and Expenses	\$0
Ending Reserve Fund	\$0
Medicare Part B Premiums	\$158,662
Life Insurance Premiums	\$0
Discretionary Spending	\$661,875
TOTAL	\$1,744,152

John's Annual Discretionary Spending Is... Low

Annual Income and Spending



John Has Two Big Problems

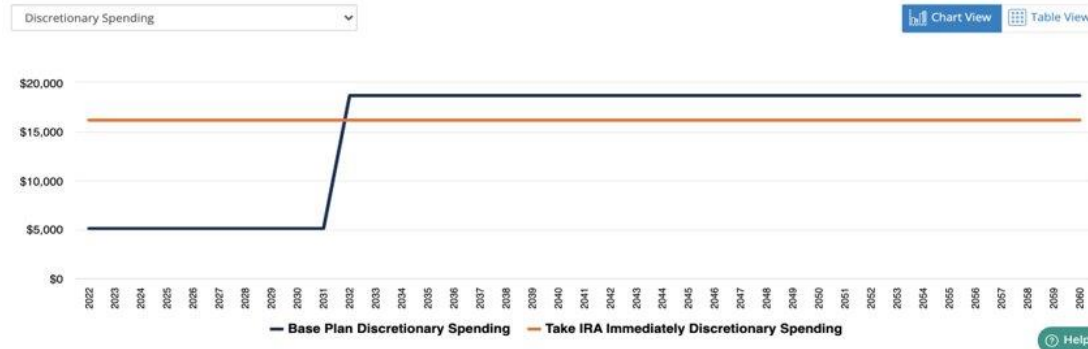
- First, he's broke. His annual discretionary spending starts at \$5,091.
- Second, he's severely cash constrained. His annual discretionary spending rises to \$18,679 at 72 when
 - He begins his IRA withdrawals
 - His mortgage ends.

Let's Have John Take His IRA Starting Now

- Raises John's lifetime discretionary spending by \$31,203
- Eliminates cash constraint

Base Plan vs. Take IRA Immediately

Choose a criteria from the drop-down list to see a side-by-side comparison between Base Plan amounts and Take IRA Immediately amounts. You can view as a table or chart by clicking the appropriate button.



Next, Let's Have John Move to Texas

- This raises John's lifetime discretionary spending by \$2,907

Next, We'll Have John Downsize His House by Half, but Keep His \$200K Mortgage

- This raises John's lifetime discretionary spending by \$593,748.
- John's annual discretionary spending leaps from \$16,234 to \$30,083!

Next, Let's Have John Pay Off His Mortgage

- This raises John's lifetime discretionary spending by \$27,272.
- John's annual discretionary spending rises from \$30,083 to \$30,719.

Now, Have John Start Social Security at 70

- This raises John's lifetime discretionary spending by \$425,618.
- John's annual discretionary spending rises from \$30,719 to \$39,138 before age 70 and \$40,001 after age 70!

If John Annuityzes His IRA Withdrawals...

- His lifetime discretionary spending rises by \$88,638.
- John's annual discretionary spending rises from \$30,719 to \$39,138 before age 70 and \$42,715 after age 70!

Six Moves Yield a Lot of Alpha!

The moves:

- Begin IRA withdrawals at 62
- Move to Texas
- Downsize by half
- Pay off his mortgage
- Begin Social Security at 70
- Annuitize IRA withdrawals

The gains:

- John's lifetime discretionary spending rises from \$661,875 to \$1,831,261 – a factor of 2.76
- John's annual discretionary spending rises
 - From \$5,091 to \$39,138 before age 70 (7.7x)
 - From \$18,679 to \$39,138 after age 70 (2.1x)

Any Other Magic Tricks for Safely Raising John's Living Standard?

- John can marry/partner and enjoy the marvelous economies of shared living.
- If John marries/partners his financial clone, his living standard will rise by over 40 percent given that two can live more cheaply than one.

Example 2: Doctor or Plumber?

If California Jane Becomes a Doctor...

1. Four years of college at \$50K real tuition per year
2. Four years of medical school at \$70K real tuition per year
3. Three years as an intern/resident earning \$62K real per year
4. Earns \$195K real from 29 to retirement 62 as a PCP
5. Repays \$64K nominal in student loans for 25 years starting at age 26

If California Jane Becomes a Plumber...

- Salary rises from \$50K real at 18 to \$100K real at 28
- Earns \$150K real from 29 to retirement at 62 as a Master Plumber

Which Career Offers Higher Lifetime Spending?

Jane's lifetime discretionary spending is \$105,407 higher as a...

PLUMBER!

Plumbing Supports \$105,407 Higher Lifetime Spending

Lower Lifetime Resources:

- Lifetime labor earnings decrease by \$926,820.
- Social Security benefits decrease by \$173,174.
- Special receipts decrease by \$780,000.

Much Lower Lifetime Costs:

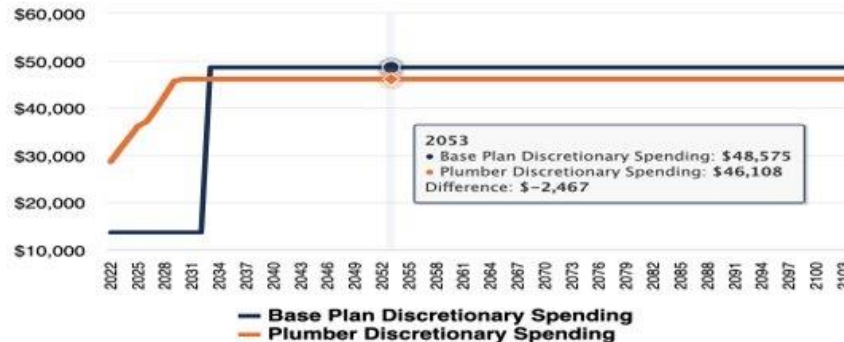
- Tuition and loan repayments decrease by \$1,549,266.
- Federal and state taxes decrease by \$434,886.
- Medicare Part B premiums decrease by \$1,250.

Which Career Offers Higher Lifetime Welfare?

- Jane is severely cash constrained prior to becoming a PCP

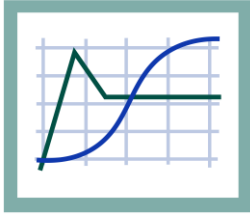
Annual Discretionary Spending

The chart below compares Annual Discretionary Spending between the two plans. To see other plan results compared, click the 'Compare' tab above.



Alpha – Safe Ways to Raise Your Living Standard – Available Everywhere You Look!

- Choosing your career
- Changing jobs
- Shopping for housing
- Shopping for mortgages
- Contributing to retirement accounts
- Deciding when to retire
- Taking Social Security
- Optimizing retirement account withdrawals
- Prepaying high interest loans
- And on and on!



SENSIBLE
FINANCIAL
PLANNING

MAXIFI®

Q&A

MAXIFI®

Connect with Larry

Website

www.kotlikoff.net

www.maxifi.com

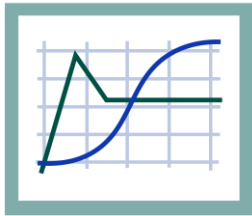
Social Media

twitter.com/kotlikoff

facebook.com/laurence.kotlikoff

[Linkedin.com/in/laurencekotlikoff/](https://linkedin.com/in/laurencekotlikoff/)

kotlikoff@economicsecurityplanning.com



**SENSIBLE
FINANCIAL
PLANNING**

Connect with Rick

Website

sensiblefinancial.com

Massachusetts

203 Crescent Street, Suite 404

Waltham, MA 02453

Phone: (781) 64x2-0890

Social Media

twitter.com/SensibleRick

facebook.com/SensibleFinancial

linkedin.com/SensibleFinancial

California

600 B Street, Suite 300

San Diego, CA 92101

Phone: (619) 573-4131