

# Why Should I Pay for Your College Education?

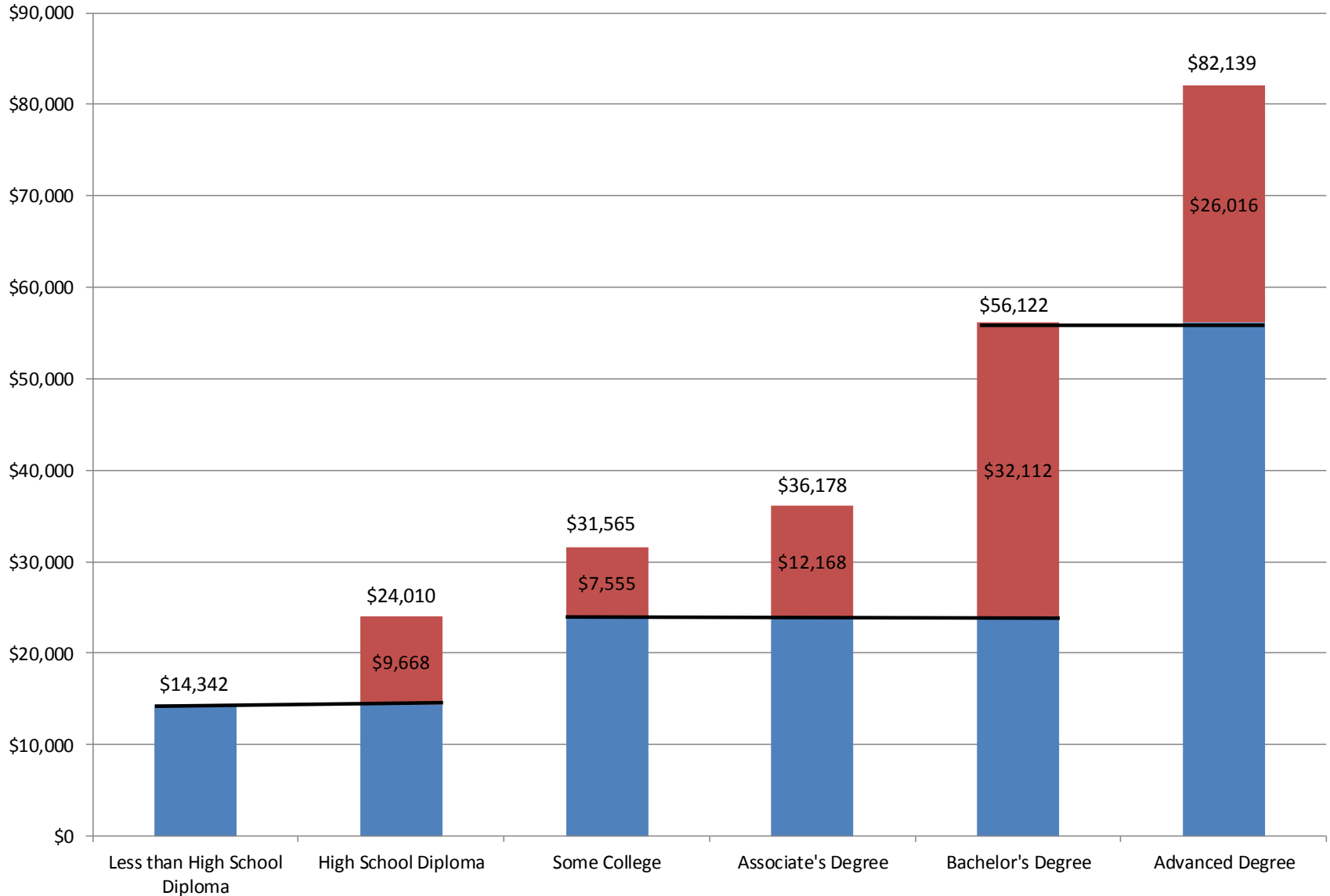
Based on

**IT'S NOT JUST THE MONEY:  
The Benefits of College Education  
to Individuals and to Society**

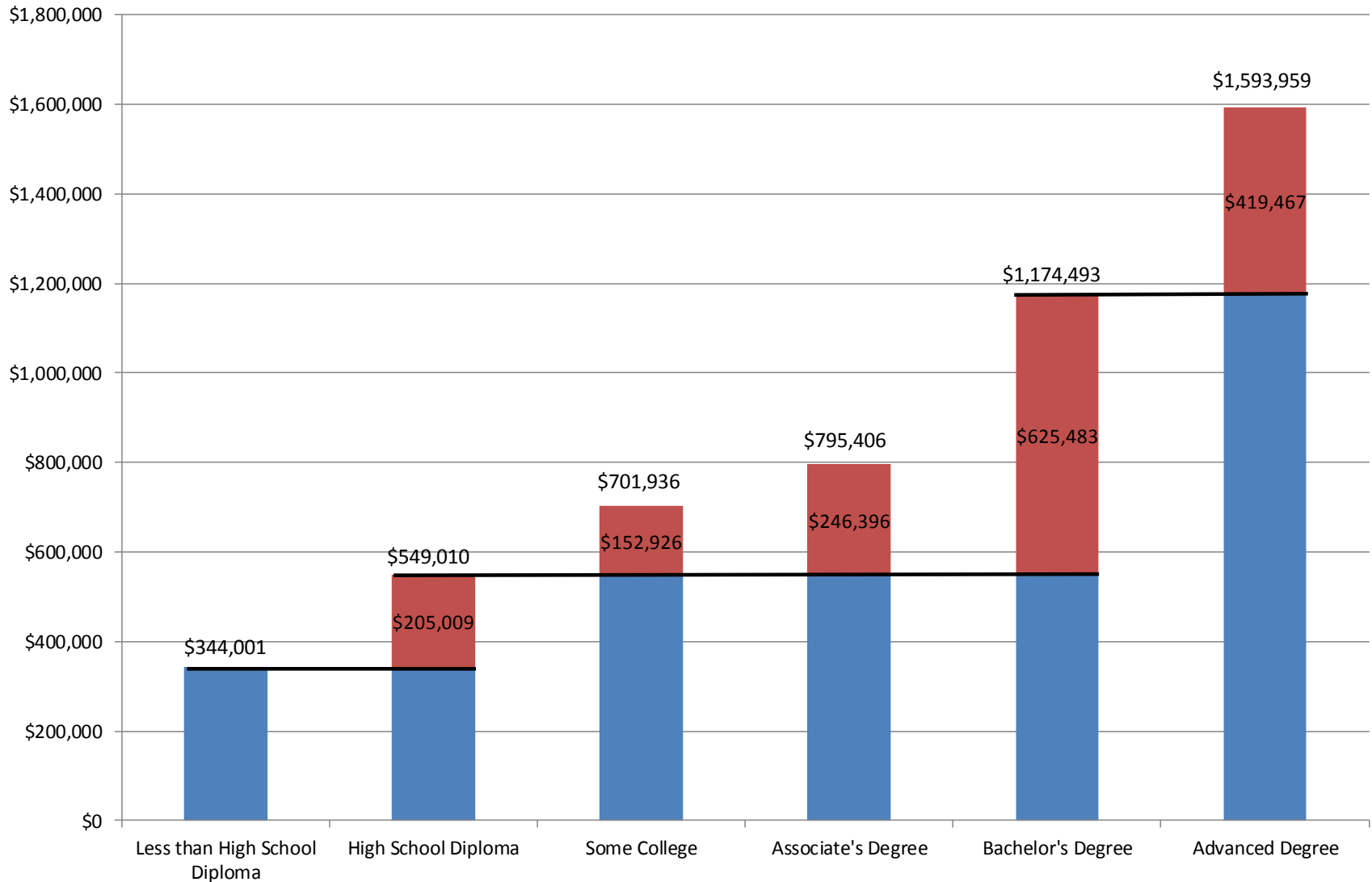
**Lumina Issue Papers**

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### Average Annual Earnings



### Present Value of Lifetime Earnings (At Age 19 using a 3% Discount Rate)



- The large monetary payoff to college education has been demonstrated countless times.
- Two unfortunate side effects:
  - Numerous other important benefits tend to get overlooked.
  - It fuels the perception that college education is primarily a private good and thus there is little need for taxpayer support.
- Our actions are speaking. Public support for higher education:
  - Falling relative to national income (since early 1980s)
  - Falling relative to total government spending (since about 1980)
  - Falling relative to net student/family contributions

## The Curse of the College Earnings Premium

- The “other” benefits are at least as important as the well-known effect on earnings.
  - They are not just the gravy.
  - The typical college education picture is worth maybe 200 words.
- The Lumina report compiles evidence from several different literatures (and shows a few new things too).
- Most of the data are from 2012.
- The benefits from college *attainment* are emphasized, not the benefits from college education generally.
  - The benefits from research and public service are not quantified.

**“If you can’t measure it, it doesn’t exist”**

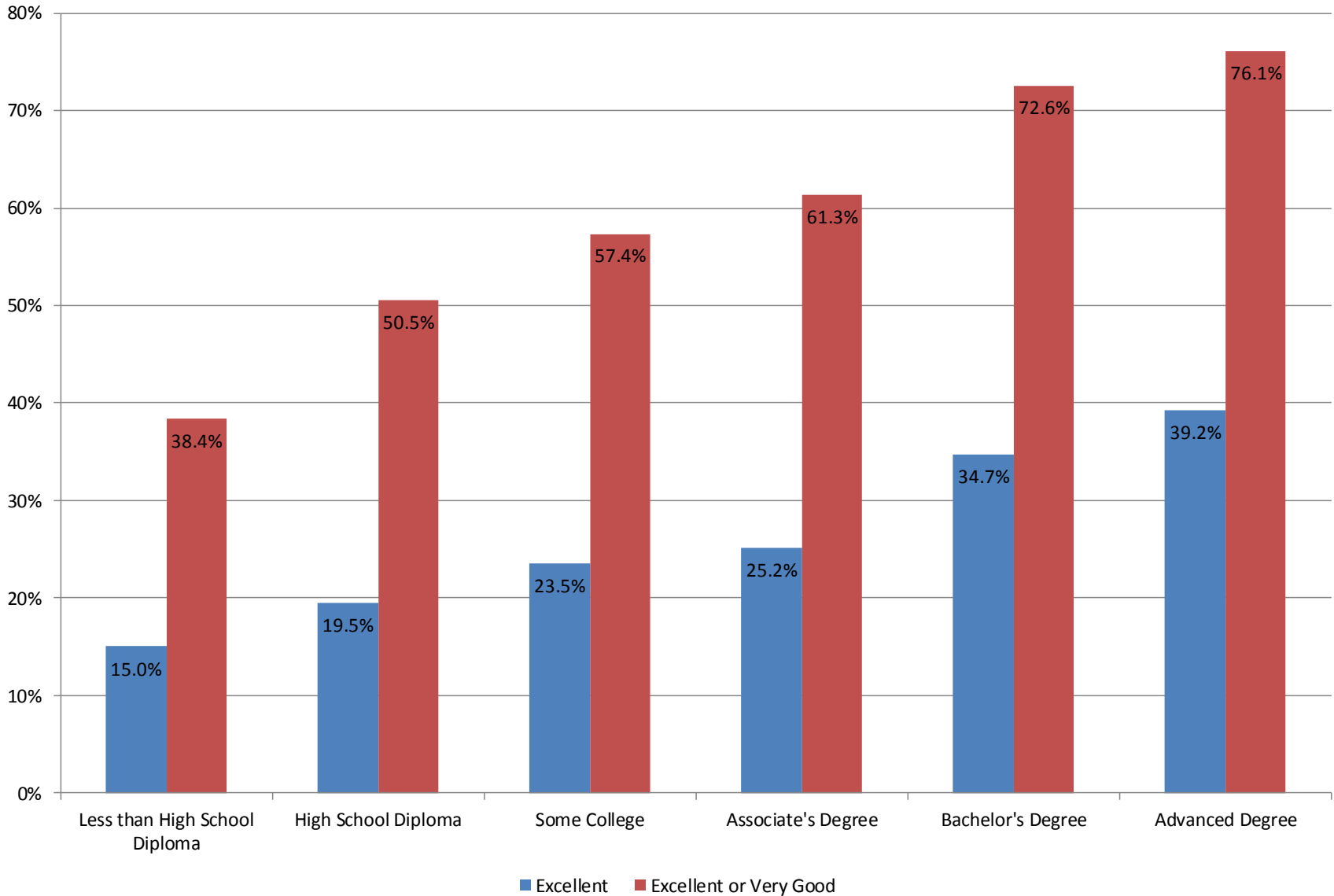
- Numerous effects are separately summarized, but they are unlikely to be independent.
  - A simple summation risks double counting.
  - There is no attempt to calculate the total benefits.
- The report does not deal with issues of causation.
  - The correlations could be the result of omitted-variables bias (a.k.a. “ability bias” in this context).
  - The literatures have found that instances of causal estimates being noticeably lower than the observed correlations are uncommon.

**Caveats**

- Some other private benefits of college attainment:
  - Greater fringe benefits from employment
  - Reduced risk of unemployment
  - Better health and reduced risks of disability and mortality
  - Increased savvy in making consumption and financial decisions
  - Reduced risk of imprisonment
  - Better marriages
  - Increased life satisfaction
  - These benefits are partially passed on to their children

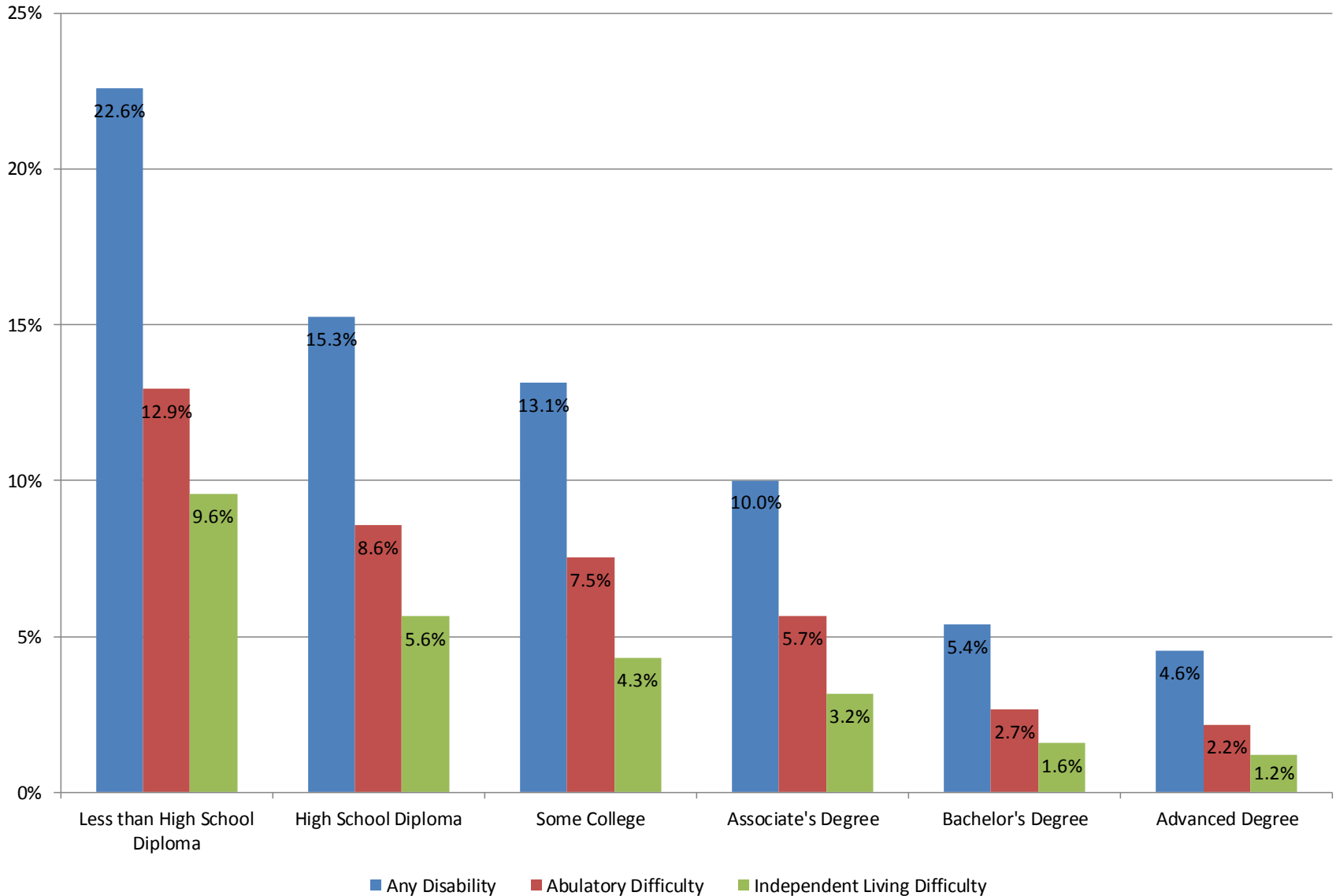
## Other Private Benefits

### Self-Reported Health



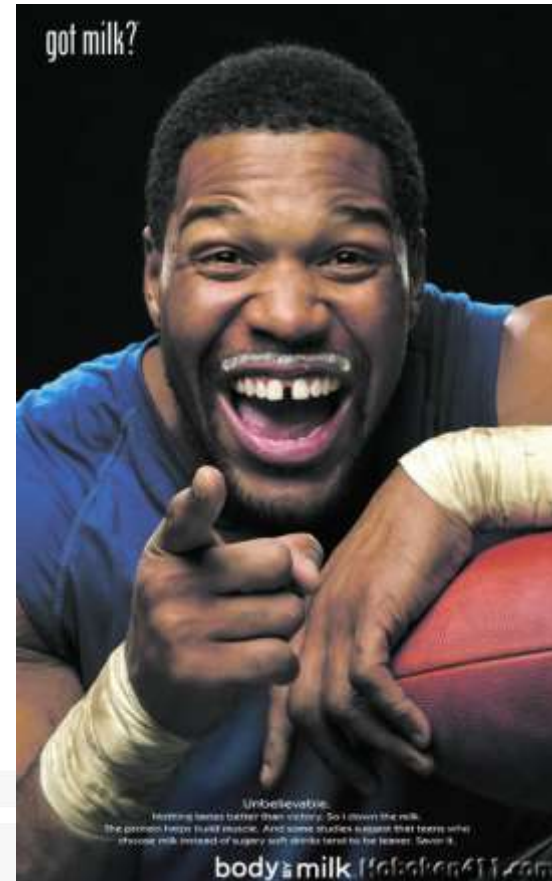


### Disability



- Hummer and Lariscy (2011) found mortality rate is 25% lower for bachelor's degrees compared to high school.
- They also show that college attainment is inversely related to all broad categories of mortality, but particularly for the most preventable causes.
  - The strongest negative effects on mortality are for diabetes and lung cancer, followed by respiratory disease and external causes (homicide, suicide, and accidents).
- Meara et al (2008) estimated life expectancy at age 25 (in 2000). Life expectancy for those with at least some college was 81.6, compared to 74.6 for those who never attended college.

## Life Expectancy



Compare to:

- College education also creates substantial benefits to the rest of society.
- Some external benefits of college attainment:
  - Probably the most important is knowledge creation and technological change fostered by college education, but this is not quantified.
  - “Productivity externalities”
  - “Fiscal externalities”
  - “Philanthropic externalities”
  - “Civic externalities” (a.k.a. “social capital”)

## External Benefits

- Education may not only increase the incomes of those being educated but also increases the incomes of others.
- Regional data on income and college attainment suggest that productivity spillovers are important.
  - The greater regional income associated with greater regional college attainment is substantially more than can be explained by the greater incomes of graduates.
- Estimating the magnitude of productivity spillovers is challenging because correlation is not causation. But the best evidence indicates that it is comparable in size to the college earnings premium.

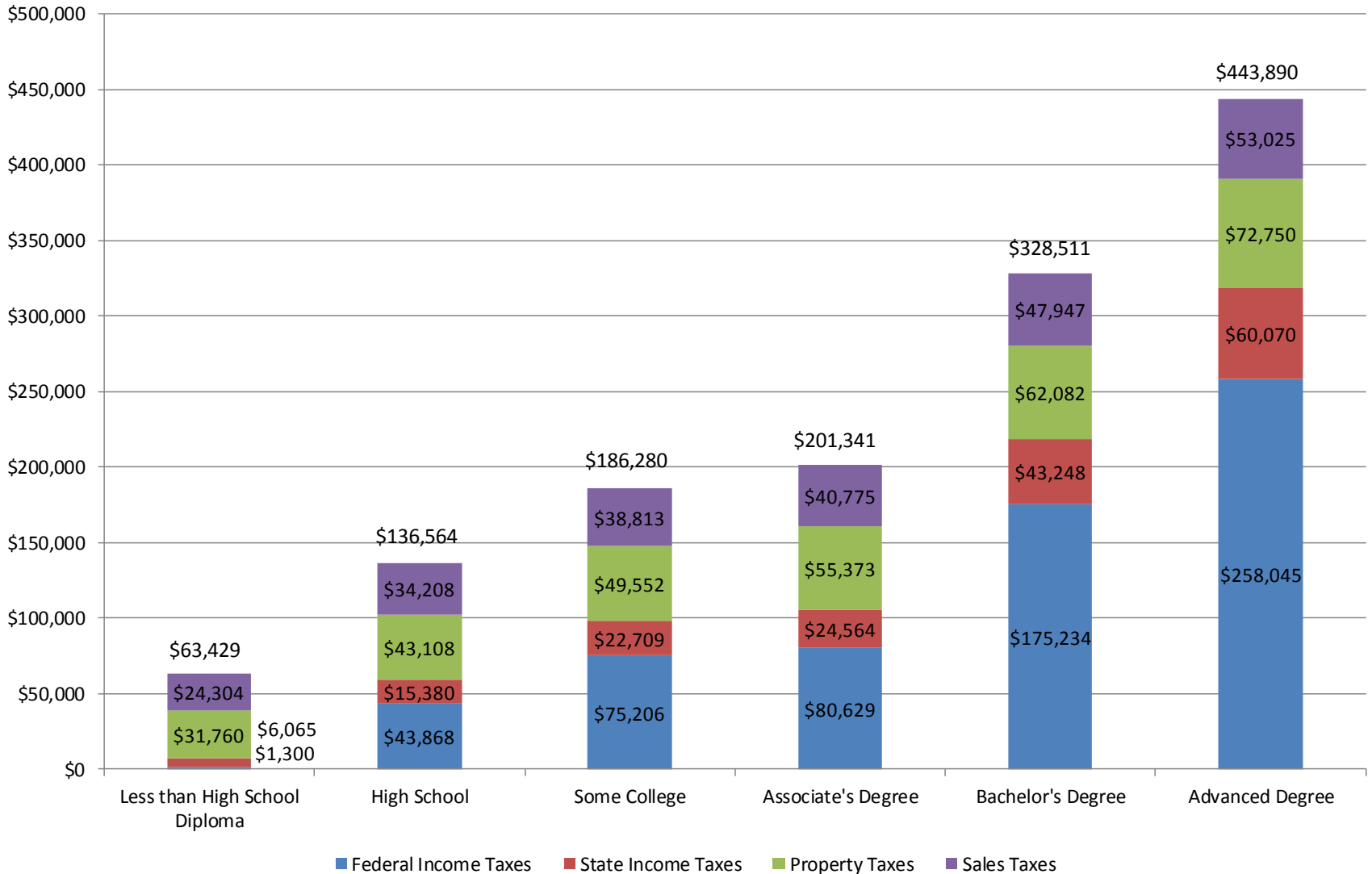
## Productivity Spillovers



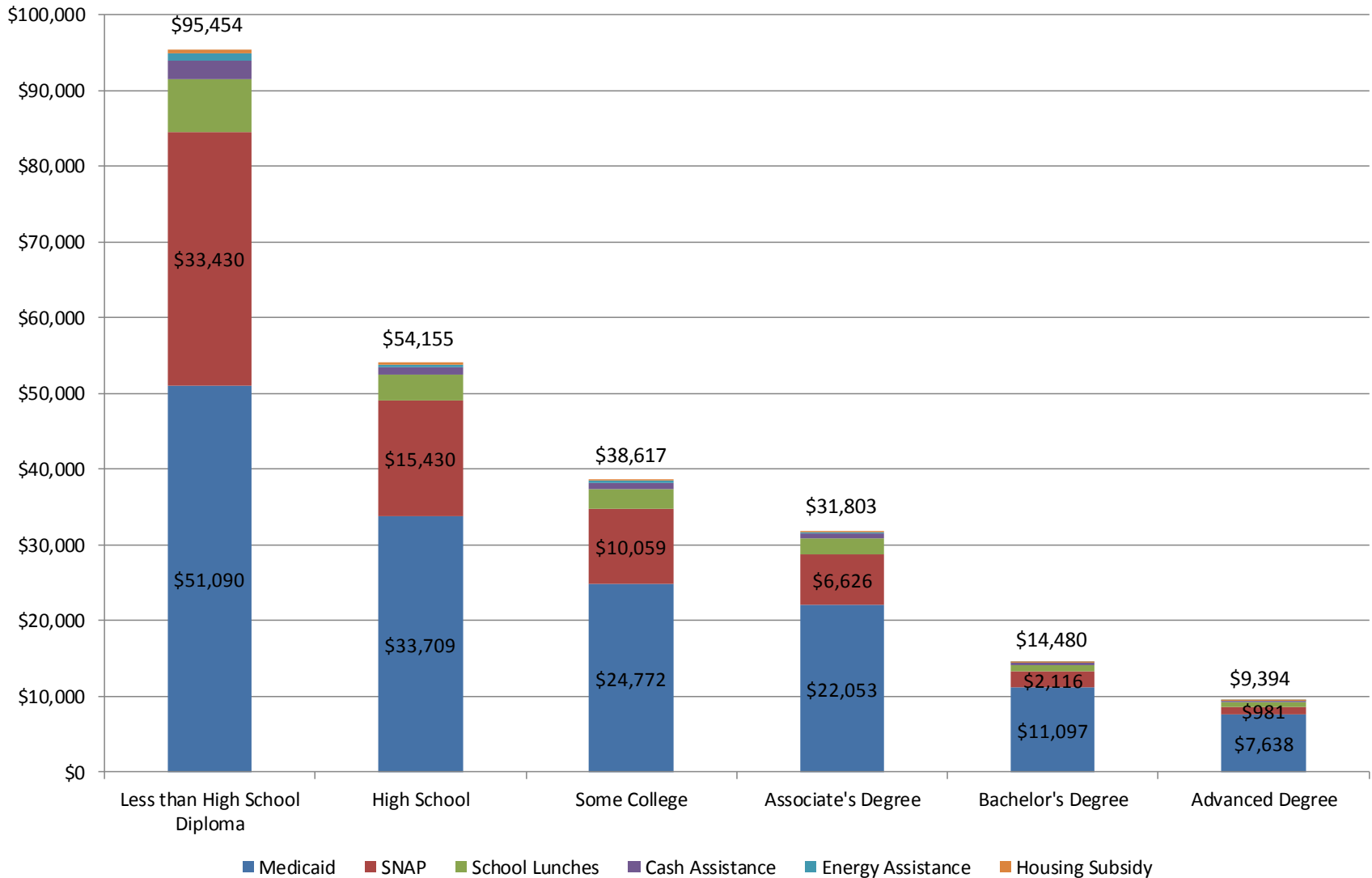
- Greater earnings associated with higher education create greater tax revenues, which benefit others by financing public services.
- The lower incidences of poverty, unemployment, disability, etc reduce spending on public assistance and social insurance, which benefit others by freeing government resources for other programs and/or reducing taxes.

## Fiscal Externalities

### Present Value of Lifetime Taxes (At Age 19 using a 3% Discount Rate)

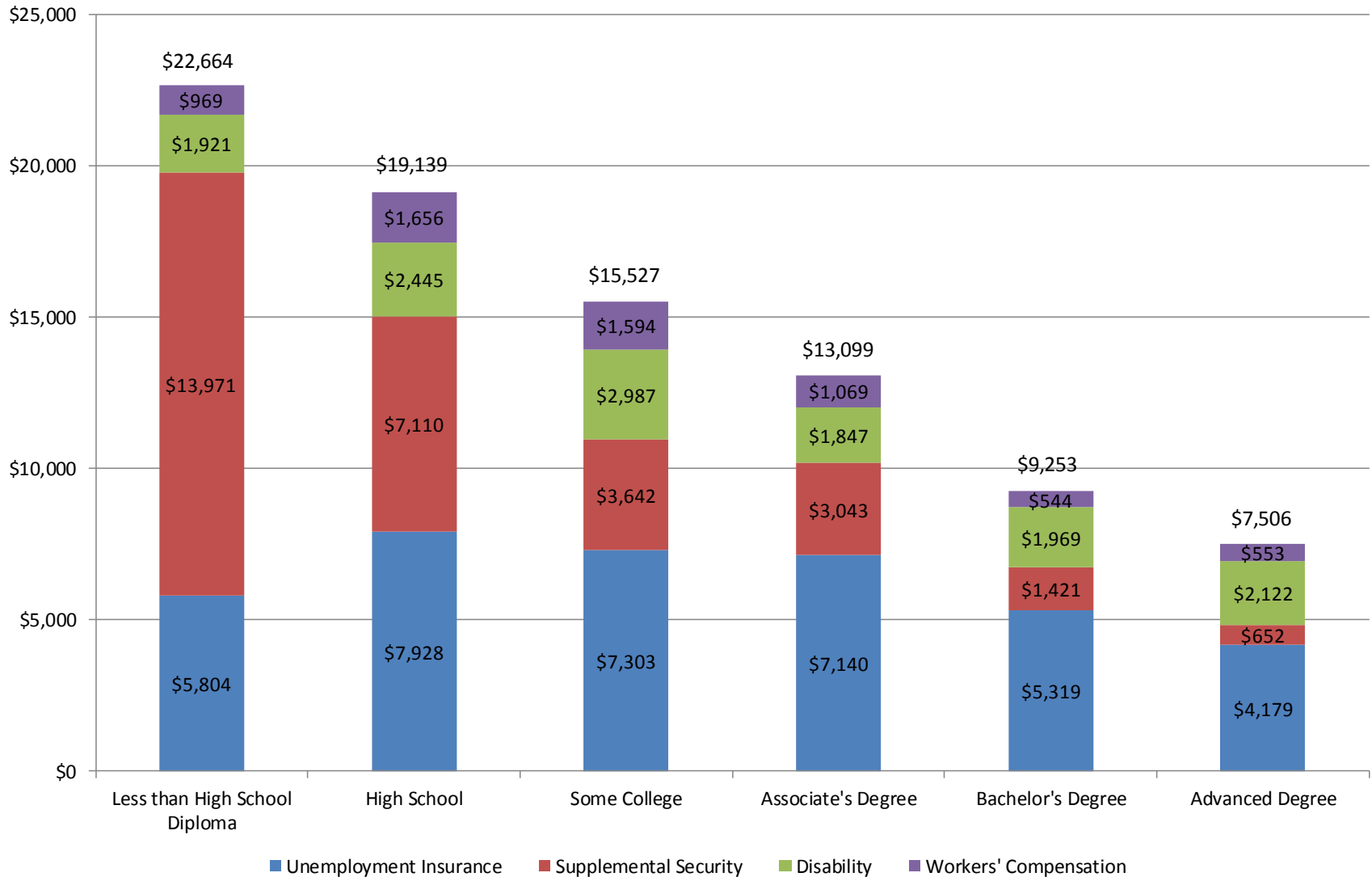


### Present Value of Lifetime Public Assistance (At Age 19 using a 3% Discount Rate)

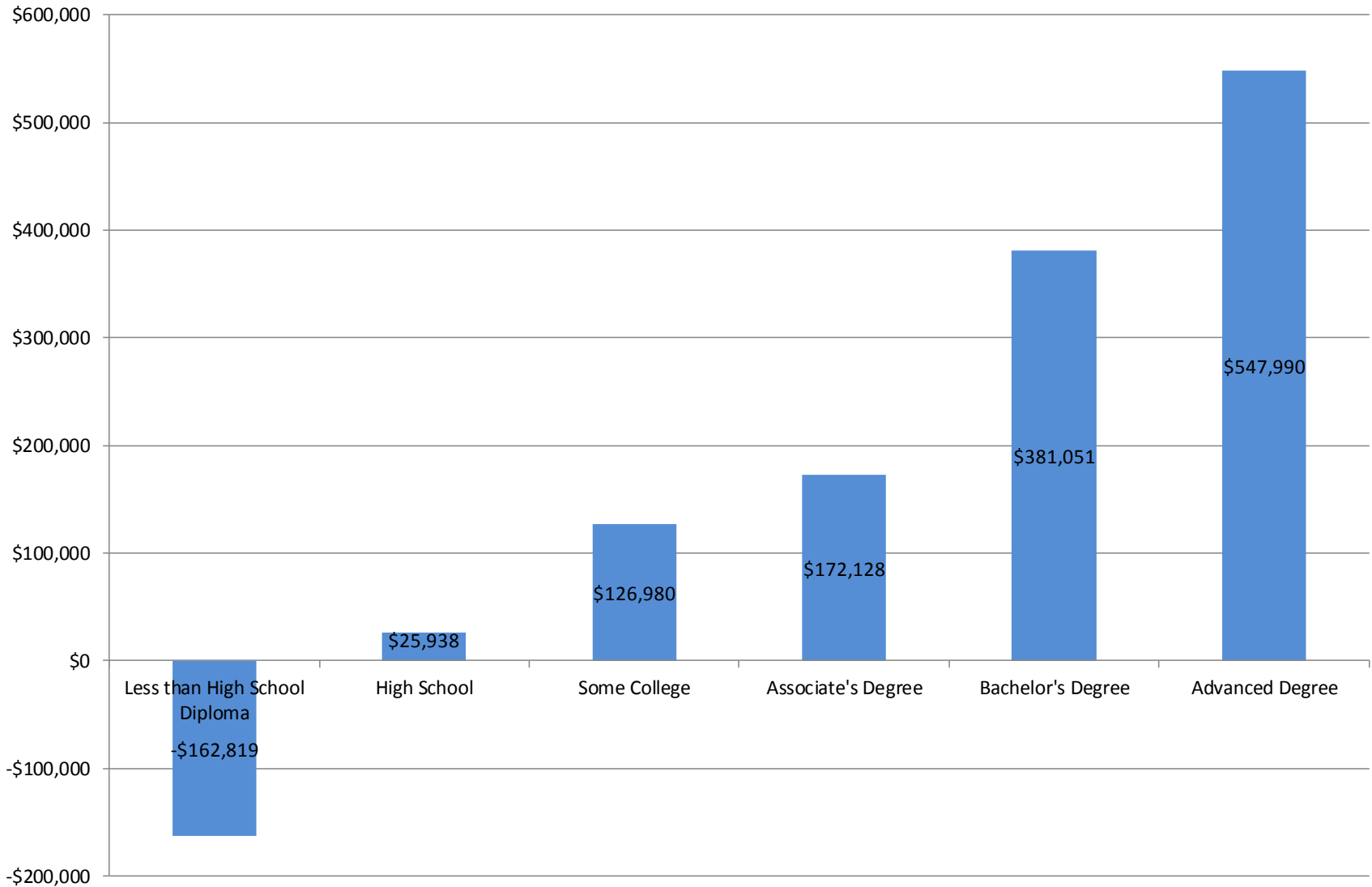




### Present Value of Lifetime Social Insurance (At Age 19 using a 3% Discount Rate)



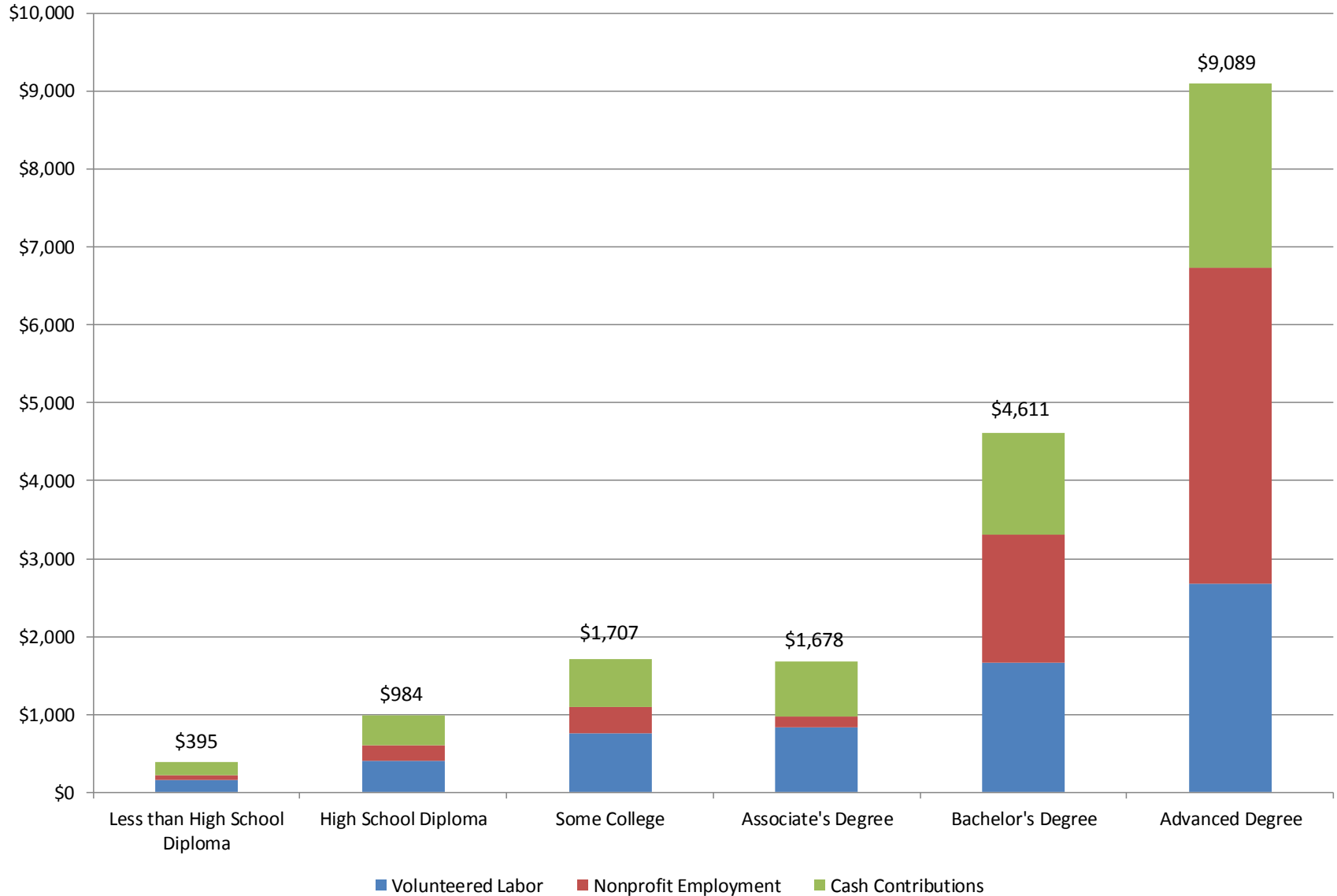
### Present Value of Net Lifetime Fiscal Impact (At Age 19 using a 3% Discount Rate)



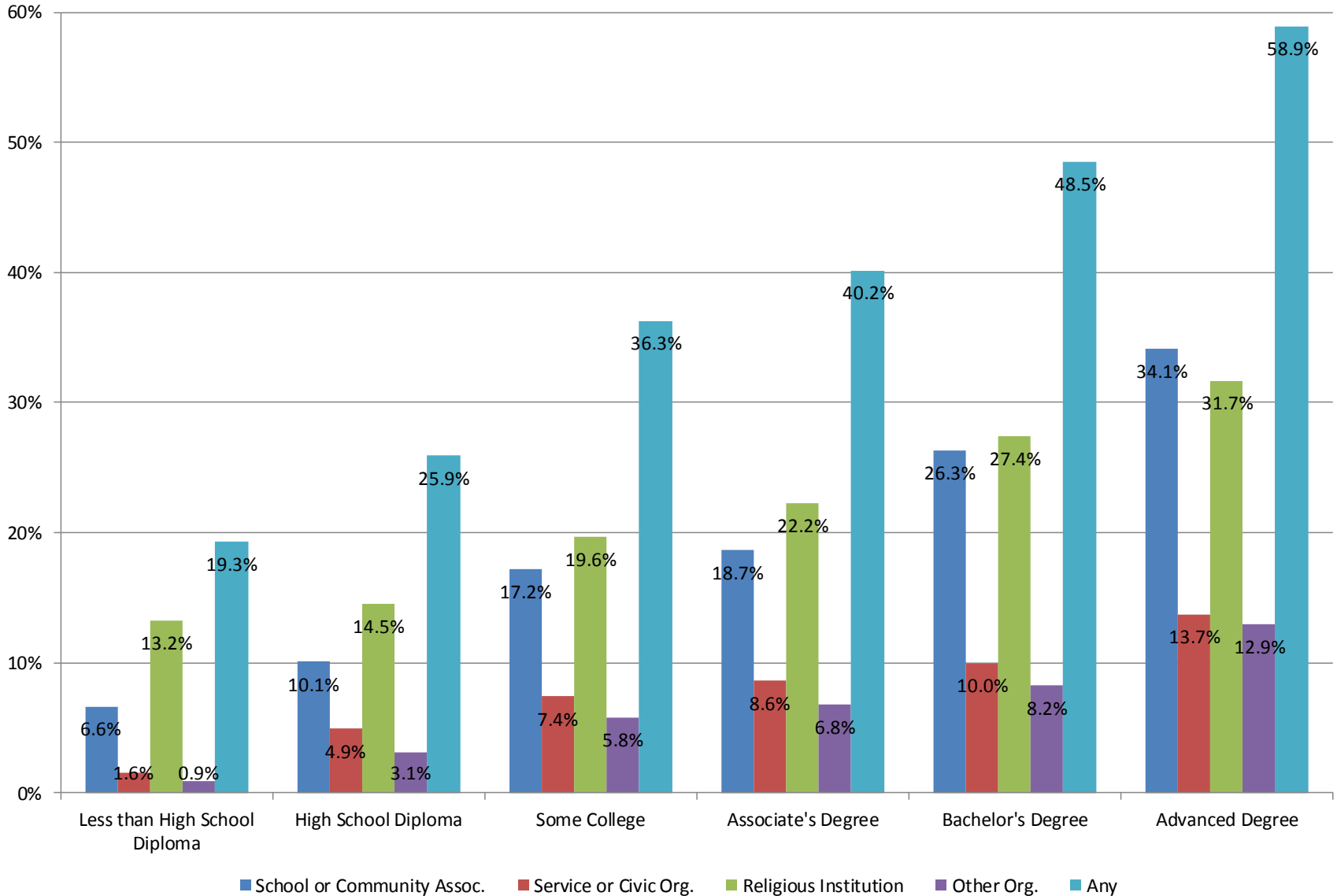
- Trostel (2010) estimated the fiscal benefits relative to the cost (using 2005 data):
  - From taxpayers' point of view each potential college degree is, conservatively, worth \$481,000 (\$556,000 in various fiscal benefits minus the \$75,000 cost).
  - Net government spending per college degree is negative!
    - The reduction in spending after college is greater than public spending on college education.
  - The real internal rate of return on taxpayer investment in college students is, conservatively, 10.3%.

**Fiscal Bottom Line**

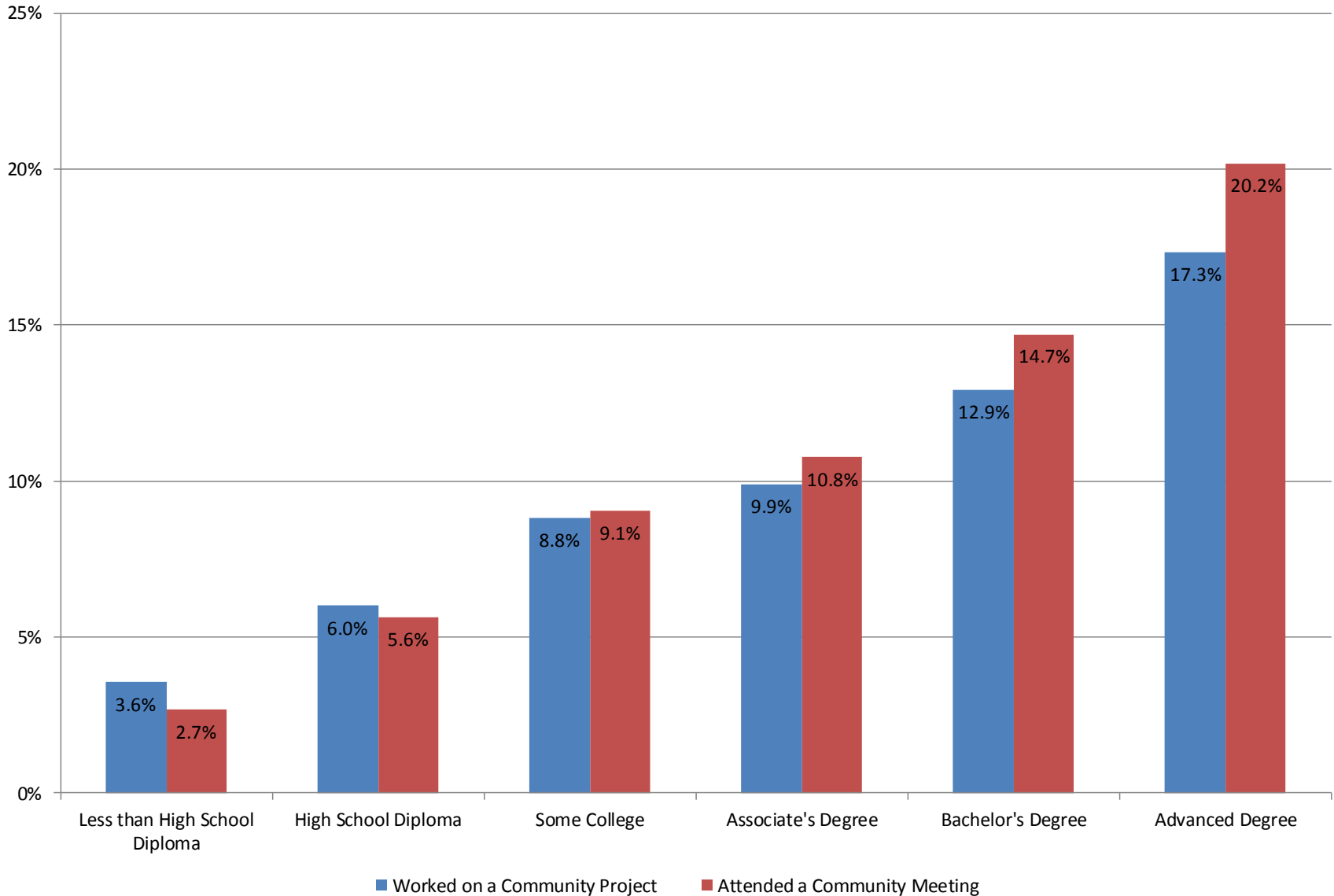
### Total Annual Philanthropic Contributions



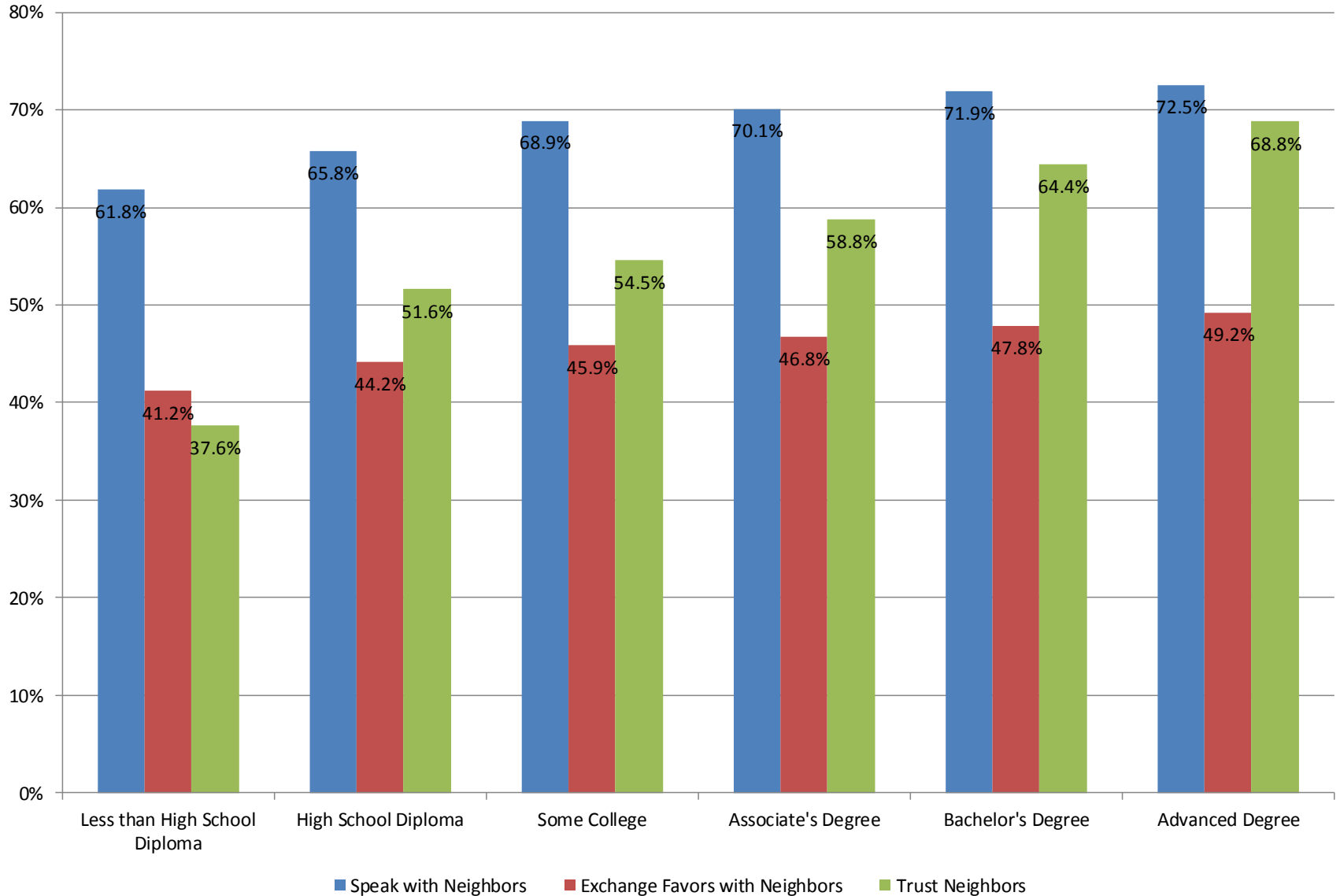
### Participation in Organizations



### Community Involvement



### Interactions with Neighbors



- Crime is essentially negative citizenship.
- Lochner and Moretti (2004) estimated the reduction in the dollar value of the harm to crime victims.
- Extrapolating their estimates:
  - The PV of the lifetime bachelor's degree premium in the victim costs of crime is 21% as large as the lifetime effect on earnings, and 45% as large as the bachelor's degree fiscal externality.

**Crime**





- It is not overstatement to call the typically emphasized effect on earnings just the tip of the college-payoff iceberg.
  - There are more benefits to college education beneath the surface than above it.
- These are just the (imperfectly) measurable benefits of college education.
  - There are numerous important but difficult-to-quantify effects such as the positive influences on innovation, culture, diversity, and tolerance.

## Summary

**Greater Earnings**

**Other  
Benefits**



- In addition to its emotional appeal, the slogan is rationally true even more than UNCF realized.
- Compromising college access makes us *all* worse off.



“A Mind is a Terrible Thing to Waste”

- Report:
  - <https://www.luminafoundation.org/files/resources/its-not-just-the-money.pdf>
- Excel charts:
  - [http://network.bepress.com/explore/education/education-economics/?facet=subject\\_facet%3A%22Phil+trostel%22](http://network.bepress.com/explore/education/education-economics/?facet=subject_facet%3A%22Phil+trostel%22)

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