

The Art and Science of Entrepreneurship

Antony Davies

September 5, 2014



Paragon Software, Co-founder and President

Raised \$1 million, developed games based on the X-Men franchise, acquired by Microprose five years later.

Repurchased a year later when Microprose filed Chapter 11. Restructured into Take-Two Interactive, developed Grand Theft Auto, went IPO three years later. Market cap \$2 billion.



Parabon Computation, Co-founder and CAO

Raised \$20 million, developed first commercial grid computing platform. Currently the largest distributed computing provider to the US government.



Repliq, Co-founder and CAO

Raised \$2 million, developed discovery engine. Sold eight months later.



What are you?



Entrepreneurs can be guided and honed, but cannot be created.

Entrepreneurship is a set of personality traits. You either have them or you don't.



Hallmarks of an Entrepreneur

The entrepreneur is someone who is keenly interested in

- Creativity
- Self-direction
- (Prudent) risk-taking

Entrepreneurs use others' money as a means to realize ideas.

Investors use others' ideas as a means to obtain money.



Start here.



Questions to answer before doing anything else

Who is your customer (be specific)?

How do you generate revenue (customers and revenue source are not always the same)?

Who are your competitors (present and future)?

What are the barriers to entry and why do they not apply to you?

What is the market opportunity?

What is the revenue opportunity?

What is the revenue driver?

What does it cost to get to market?



Now build your documents.



After answering questions, do the following

1. Describe your product in a dozen words.

Parabon sells pay-per-use supercomputing by bundling the idle power of Internet-connected personal computers.

Analogies help

Parabon is the Zip Cars of supercomputing.

Identify Pain Points

Traditional supercomputing is like have to buy a bar in order to have a beer.



After answering questions, do the following

1. Describe your product in a dozen words.
2. Build a business plan
 - Executive summary
 - Business concept
 - Market overview
 - Marketing strategy
 - Organization and key hires
 - Risks
 - Milestones
 - Pro forma financials
 - Top-down
 - Bottom-up
 - Pipeline



Top-Down Sales Forecast

Personal ground transportation

Market = \$87 billion (in Year 1)

Owned transportation

Top-10 Players = \$43.5 billion

Hired transportation

Relevant Market = \$43.5 billion

Local transportation

Distant Competitors = \$43 billion

Market Opportunity = \$484 million

Long distance transportation

Unrealized Market Opportunity = \$483 million

Uber

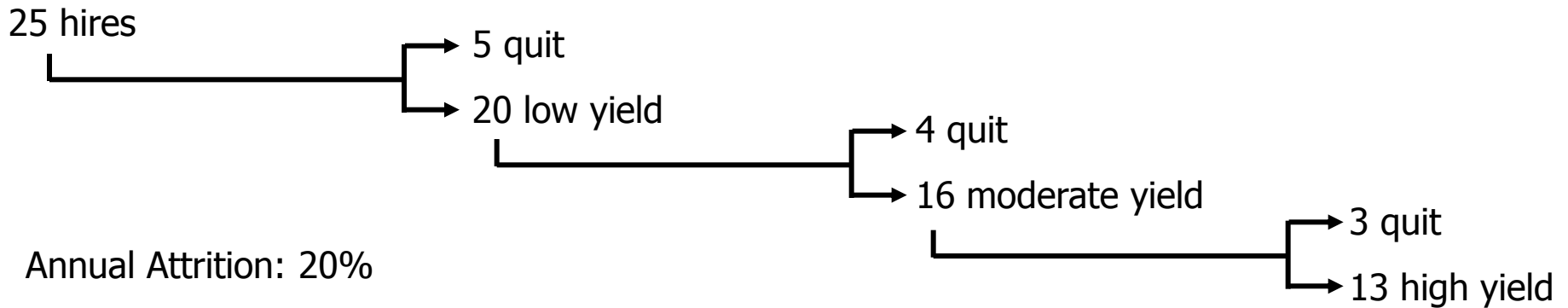
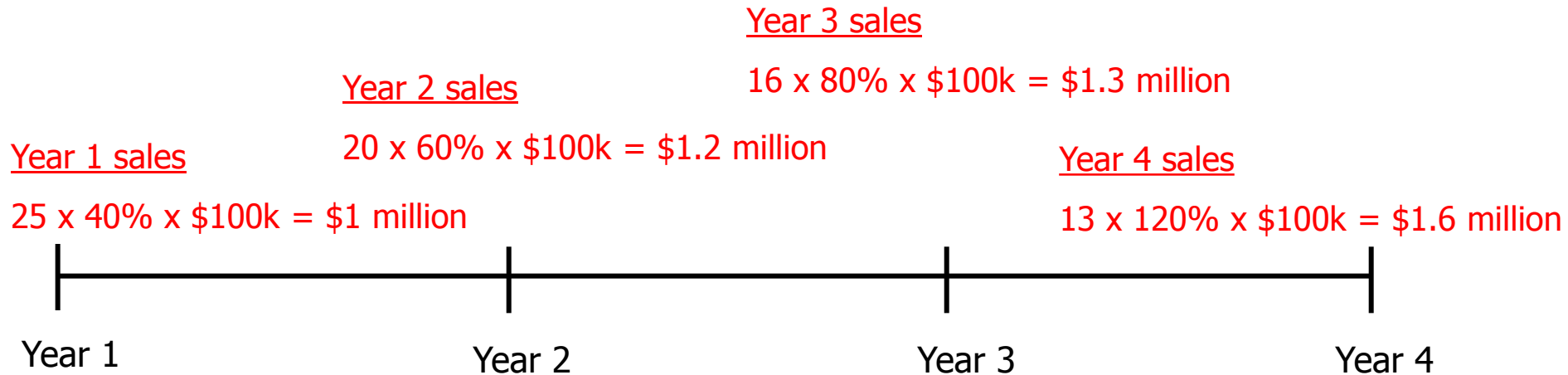
Year 1 Sales = \$1 million

Taxis

Goal of the Top-Down Approach



Bottom-Up Sales Forecast



Annual Attrition: 20%

Quota = \$100,000

New hire = 40% of quota

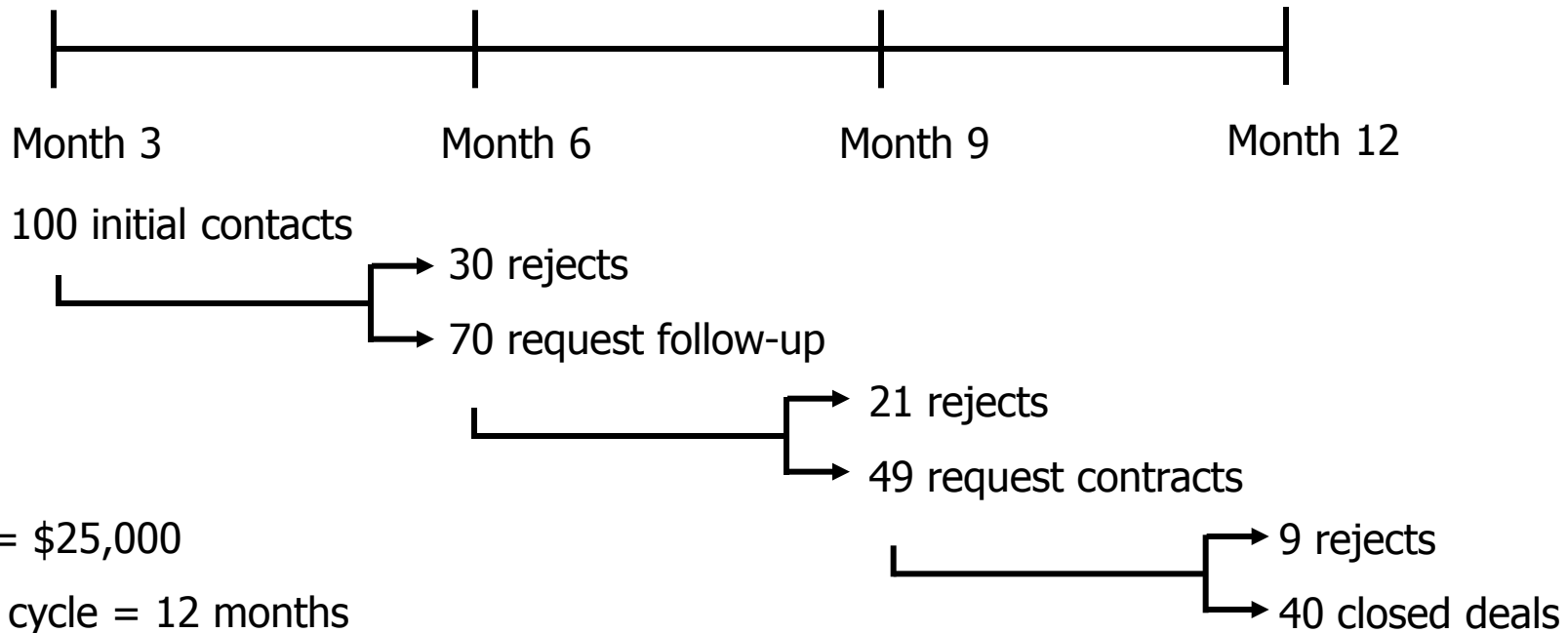
Low yield = 60% of quota

Moderate yield = 80% of quota

High yield = 120% of quota



Pipeline Sales Forecast



Sale = \$25,000

Sales cycle = 12 months

Months 1 – 3: Initial contacts

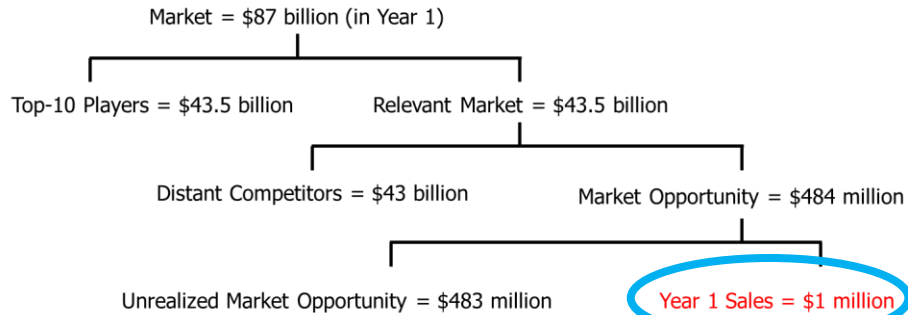
Months 4 – 6: 30% of initial contacts request a follow-up

Months 7 – 9: 70% of follow-ups request a contract

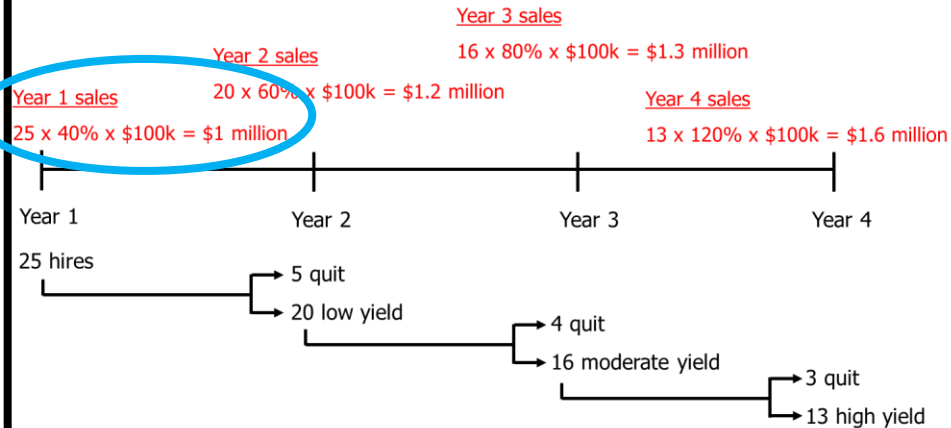
Months 10 – 12: 80% of follow-ups close contracts

40 deals x \$25,000 = \$1 million

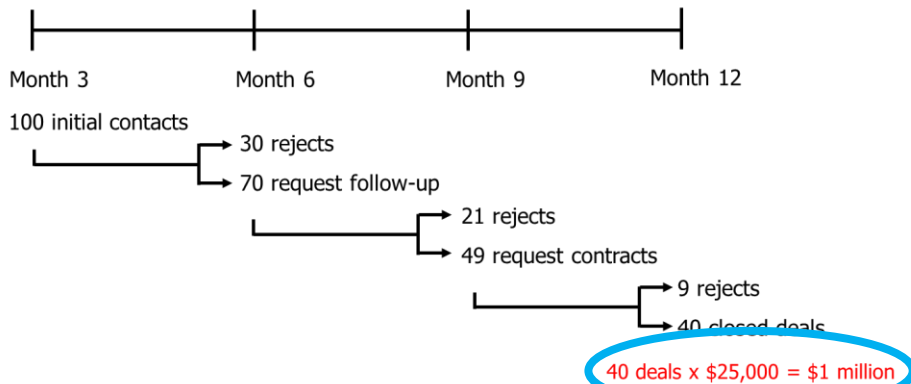
Top-Down Sales Forecast



Bottom-Up Sales Forecast



Pipeline Sales Forecast



After answering questions, do the following

3. Build a deck of 10-15 slides summarizing your business plan.

4. Put together the initial team – equity players.

Entrepreneurial skill \neq Managerial skill

Transition key positions after you secure institutional funding.



Get funding.



Types of investors

Friends and family

Limited funding. Do not take much from here and do not take from many.

"Dumb" angels

Accredited investors who are not knowledgeable about your business.

"Smart" angels

Accredited investors who are knowledgeable about your business.

Small VCs

Venture capital firms that are looking to use your firm as leverage to play with big VCs when you launch a Series A.

Large VCs

Established venture capital firms that are looking to take you IPO.

Example of investment rounds

Investors	Investment	Pre-money Valuation	Equity Purchased	Total Equity Assigned
Entrepreneurial team	Idea and effort	\$0	20%	20%
Friends and Family	\$50,000	\$1,000,000	5%	25%
Dumb Angels	\$200,000	\$2,000,000	10%	35%
Smart Angels	\$300,000	\$4,000,000	8%	43%
Small VC	\$1,000,000	\$8,000,000	13%	55%
Large VC	\$10,000,000	\$22,000,000	45%	100%



WARNINGS

Don't go to VCs too early – it's a waste of time.

VCs want to see proof of traction. They'll talk to you early, but they won't invest.

Don't go to VCs too late – they offer more than money.

VCs offer managerial experience, industry contacts, and represent a source of additional funds.

VCs are lemmings.

Few will want to invest in a new area (even if you can prove success). Many will want to invest where other VCs are investing (even if you have proven failure).

Don't try to raise money in non-savvy areas.

For tech plays, move to Boston, DC, or San Francisco.

Avoid angel networks unless one of your current investors belongs.

Angel networks are frequently comprised of investors who want to play VC, but have neither the skill nor the financial acumen of a VC.

WARNINGS

Don't be afraid of losing control.

The entrepreneur is (usually) not a manager. Get the ball rolling and then step aside. Maintaining control stymies fund raising and decision making.

Don't give away the farm in the early days.

Share the wealth with people who help you out in the early days, but don't undervalue the company. Early contributors rarely contribute in later stages.

Don't waste time and effort on nonsense.

You don't need business stationary, a name, a logo, titles. Fun to play with but contribute nothing to building the product. Let experts handle these later.

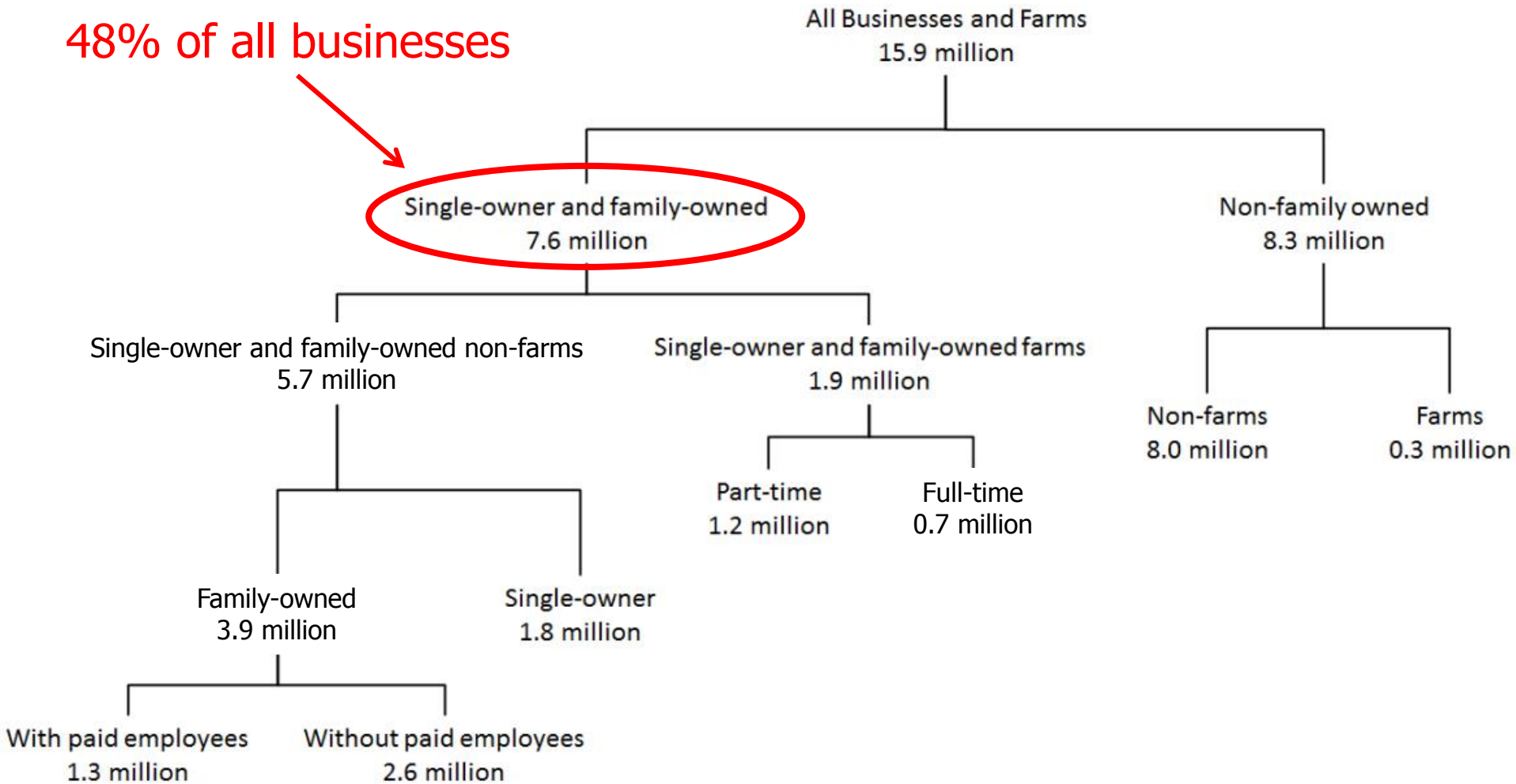
Don't take investors' or entrepreneurs' advice too seriously.

Those who have been successful usually can't distinguish between luck and skill.

You're not alone.



48% of all businesses



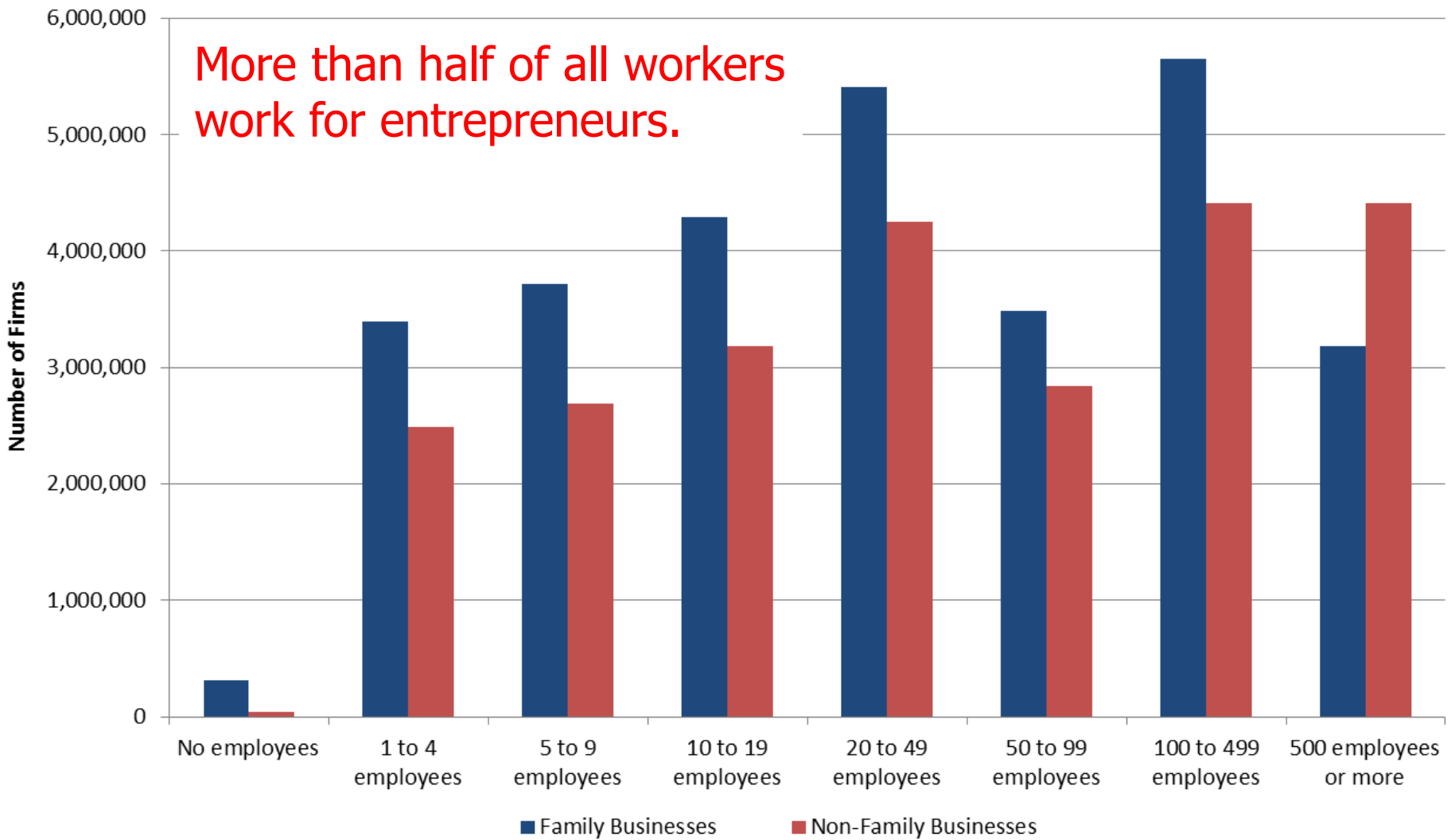
Data sources: Survey of Business Owners, US Census Bureau; Census of Agriculture, US Department of Agriculture. Figures are from the 2007 surveys.



You are big.



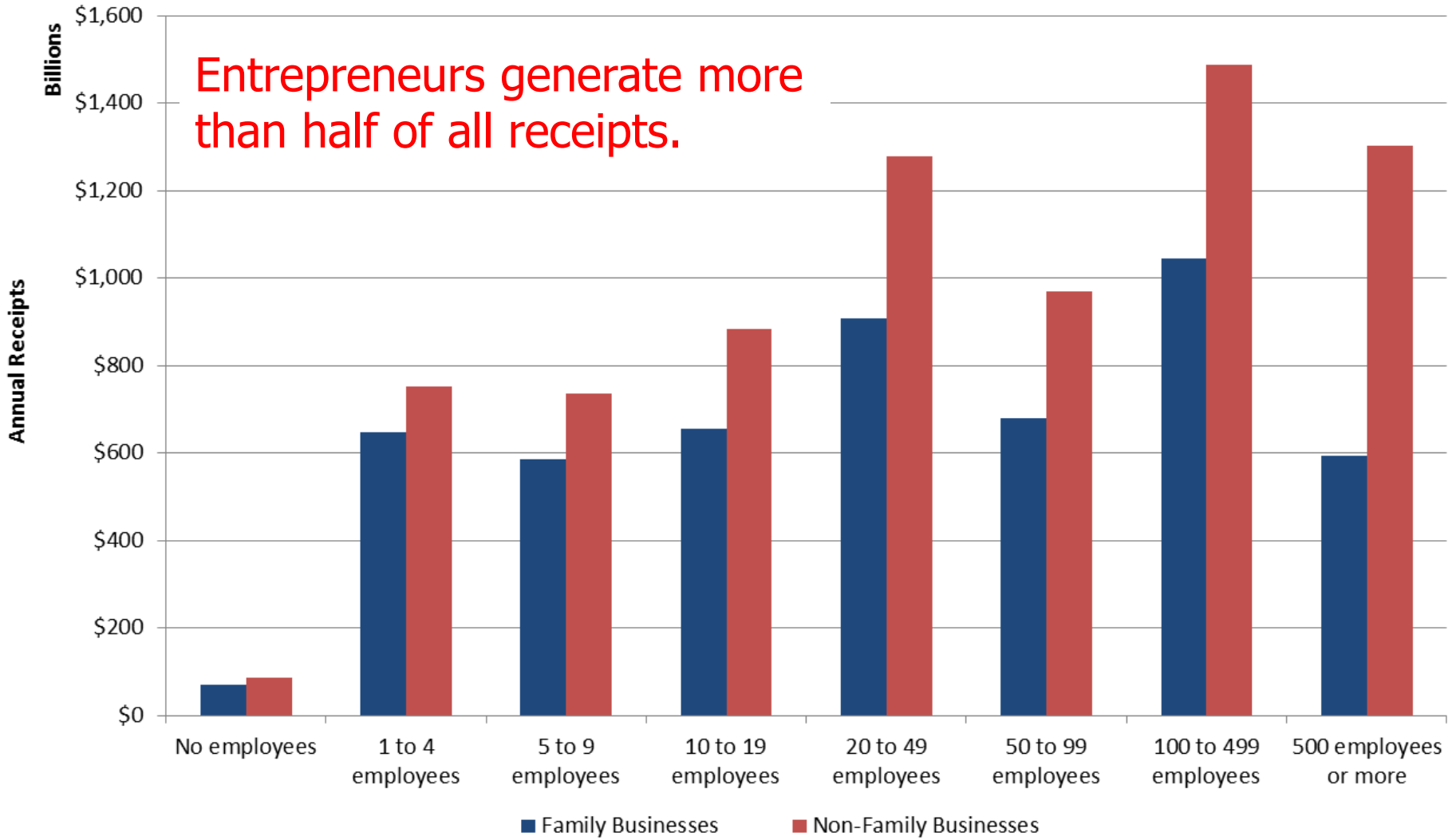
More than half of all workers work for entrepreneurs.



Data sources: Survey of Business Owners, US Census Bureau; Census of Agriculture, US Department of Agriculture. Figures are from the 2007 surveys.



Entrepreneurs generate more than half of all receipts.



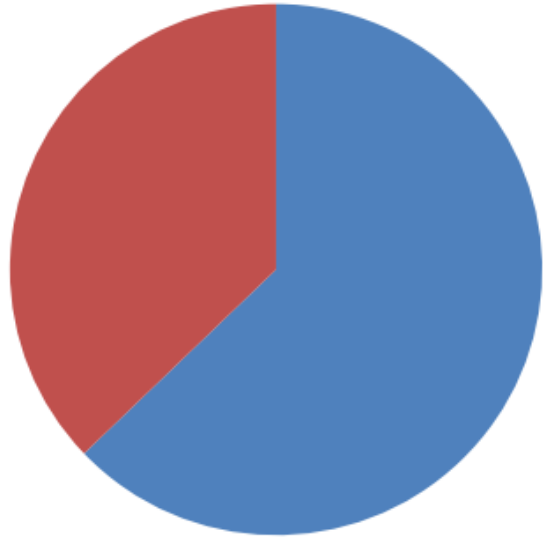
Data sources: Survey of Business Owners, US Census Bureau; Census of Agriculture, US Department of Agriculture. Figures are from the 2007 surveys. Only reporting firms are shown.



You are (largely) women.

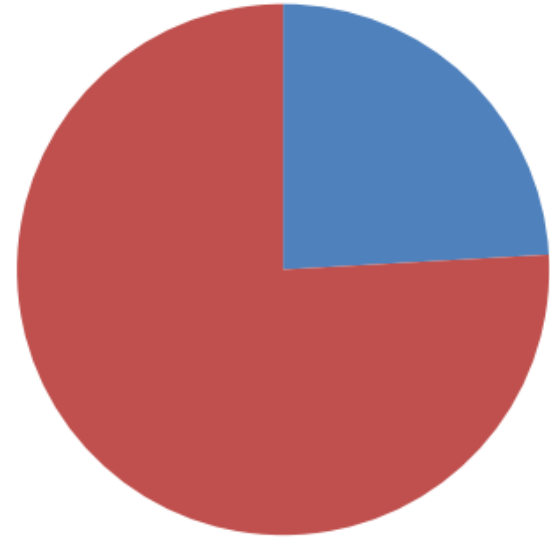


Family Businesses



■ 50% or More Female Owned

Non-Family Businesses

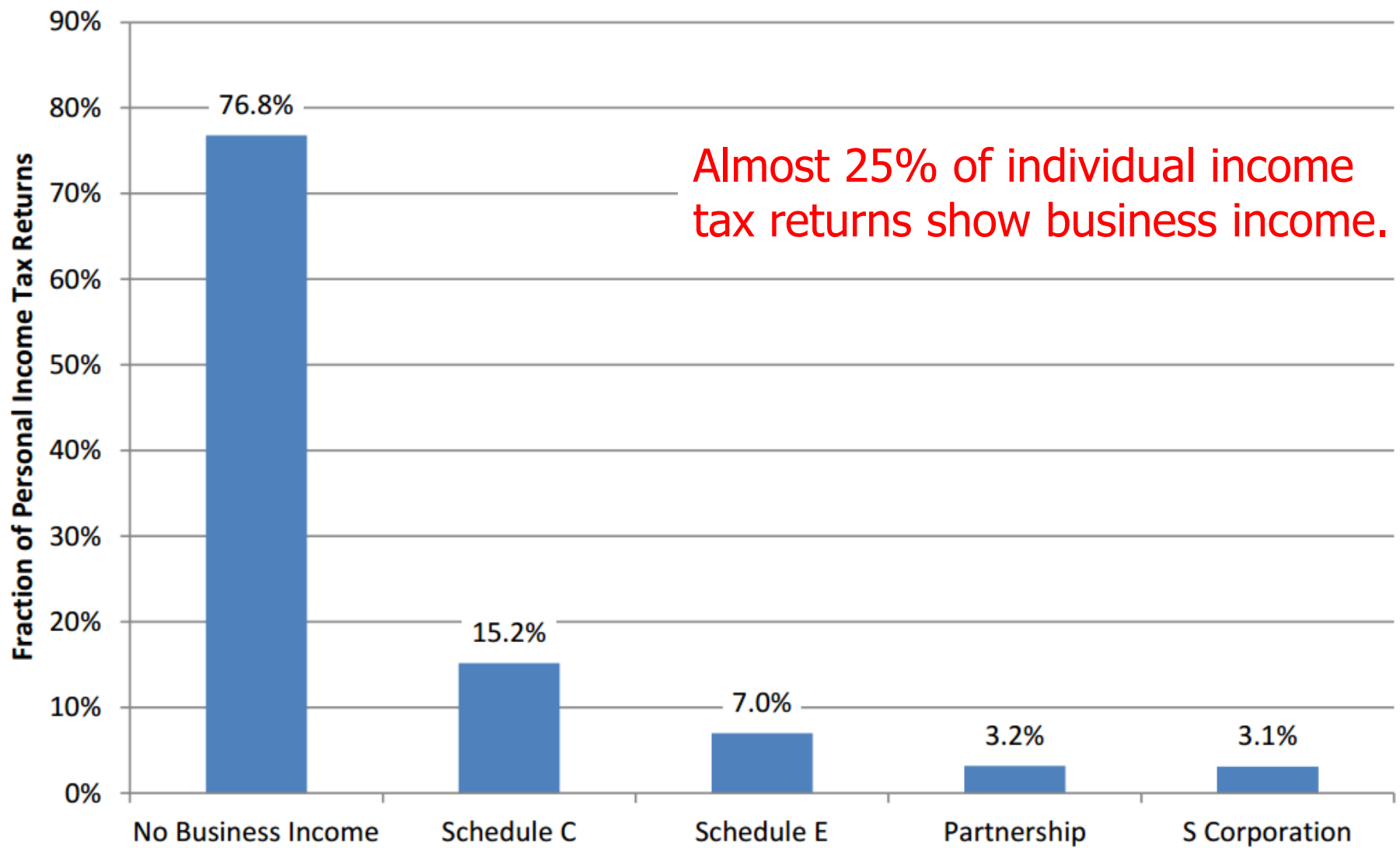


■ 50% or More Female Owned

Data source: Survey of Business Owners, US Census Bureau. Figures are from the 2007 surveys.

You're not alone, but you are rare.



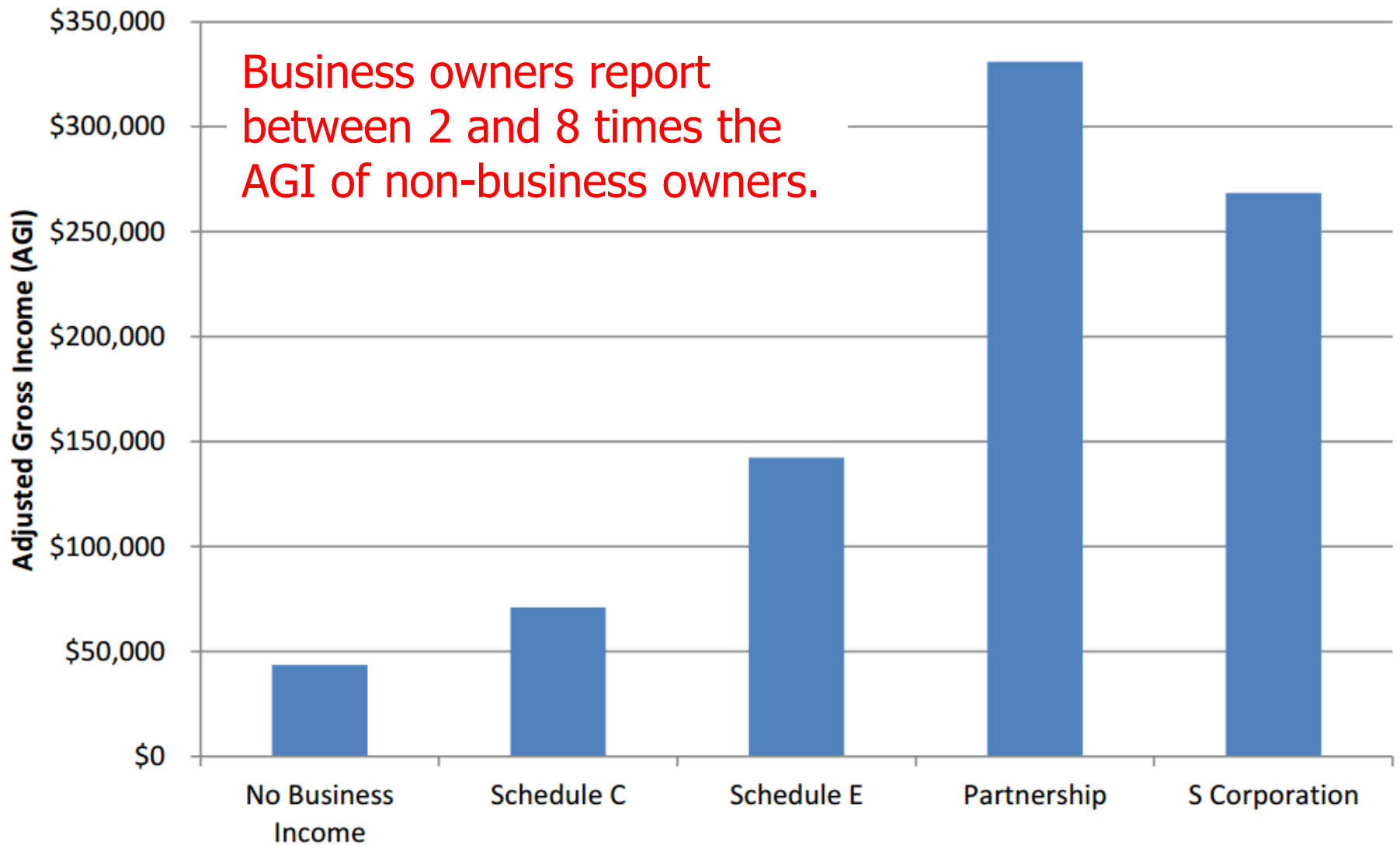


Data source: IRS sampling of federal tax returns.



**You earn more than
non-business owners...**





Data source: IRS sampling of federal tax returns.

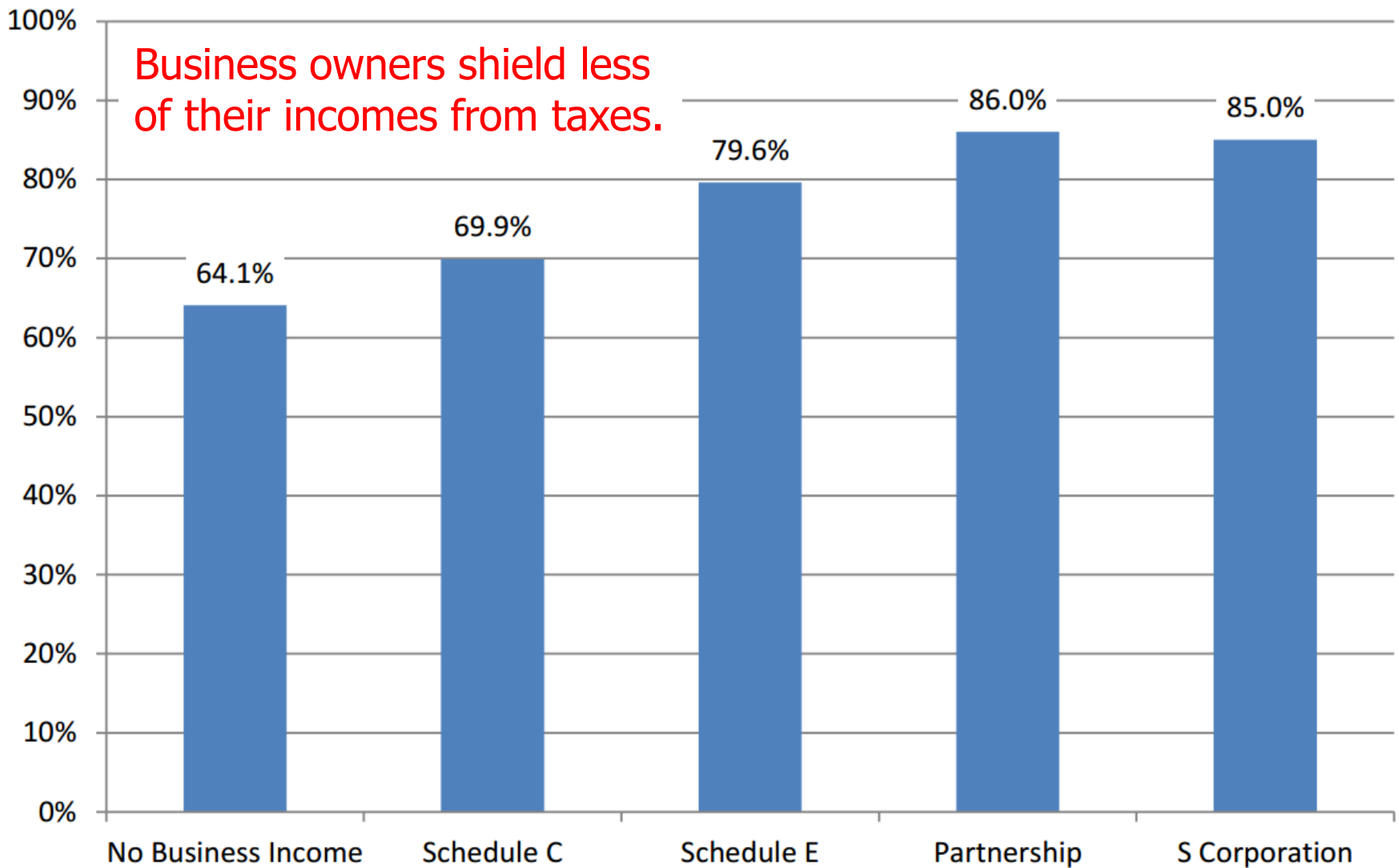


...but more of your income is taxed...



% of AGI Subject to Taxation

Business owners shield less
of their incomes from taxes.



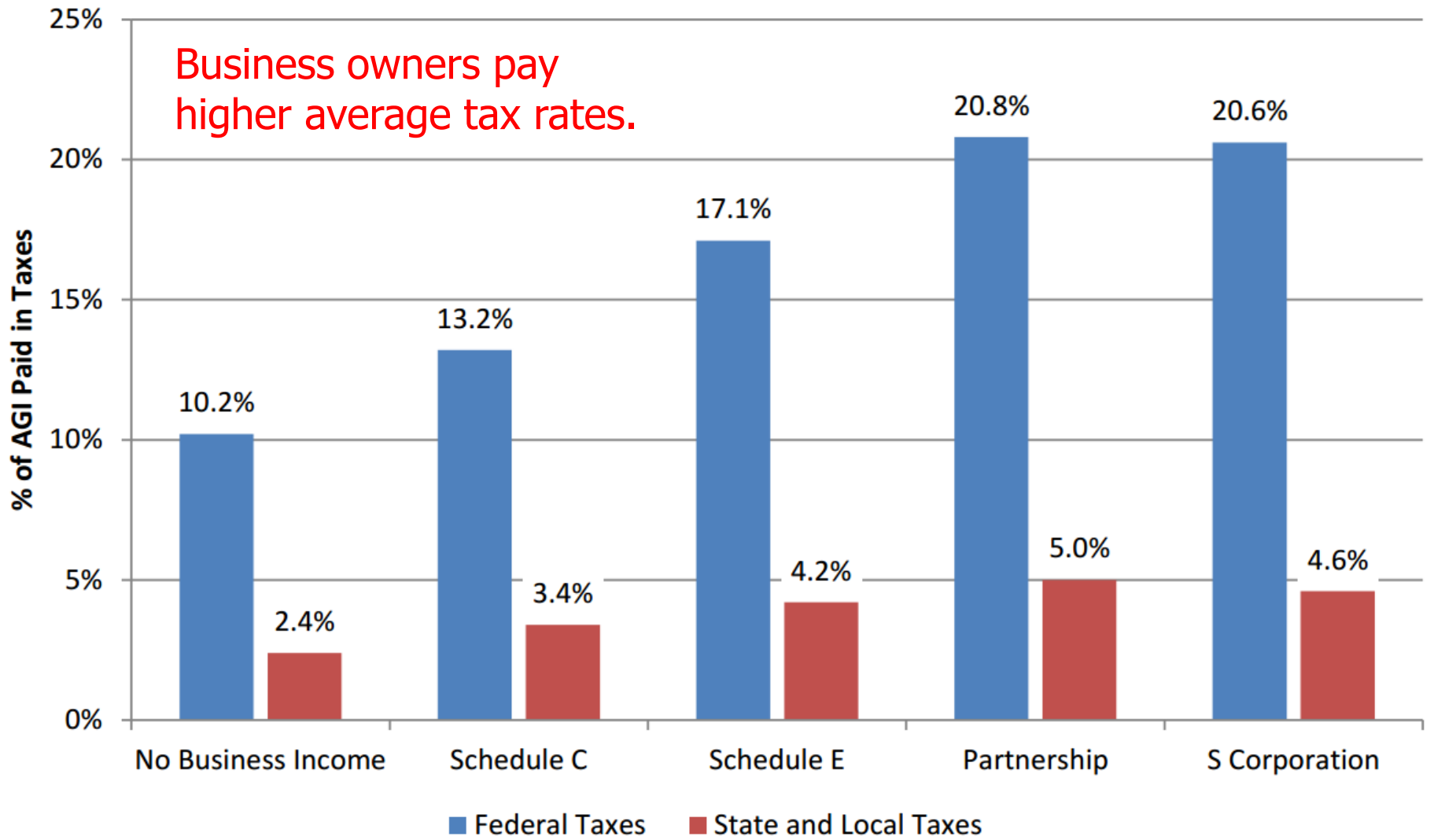
Data source: IRS sampling of federal tax returns.



...and it's taxed at a higher rate.



Business owners pay higher average tax rates.

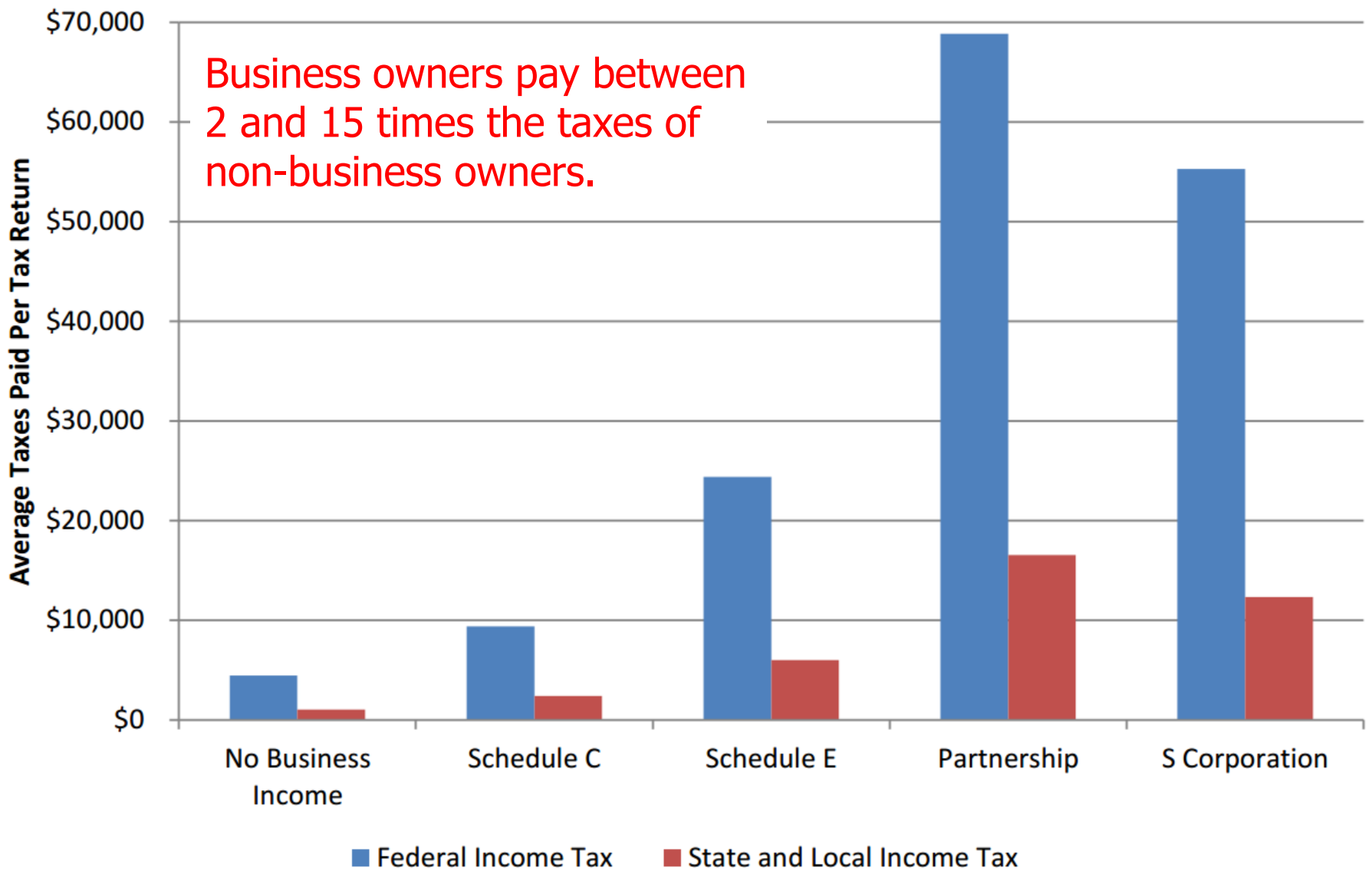


Data source: IRS sampling of federal tax returns.



Put it all together and you pay far more taxes than non-business owners.



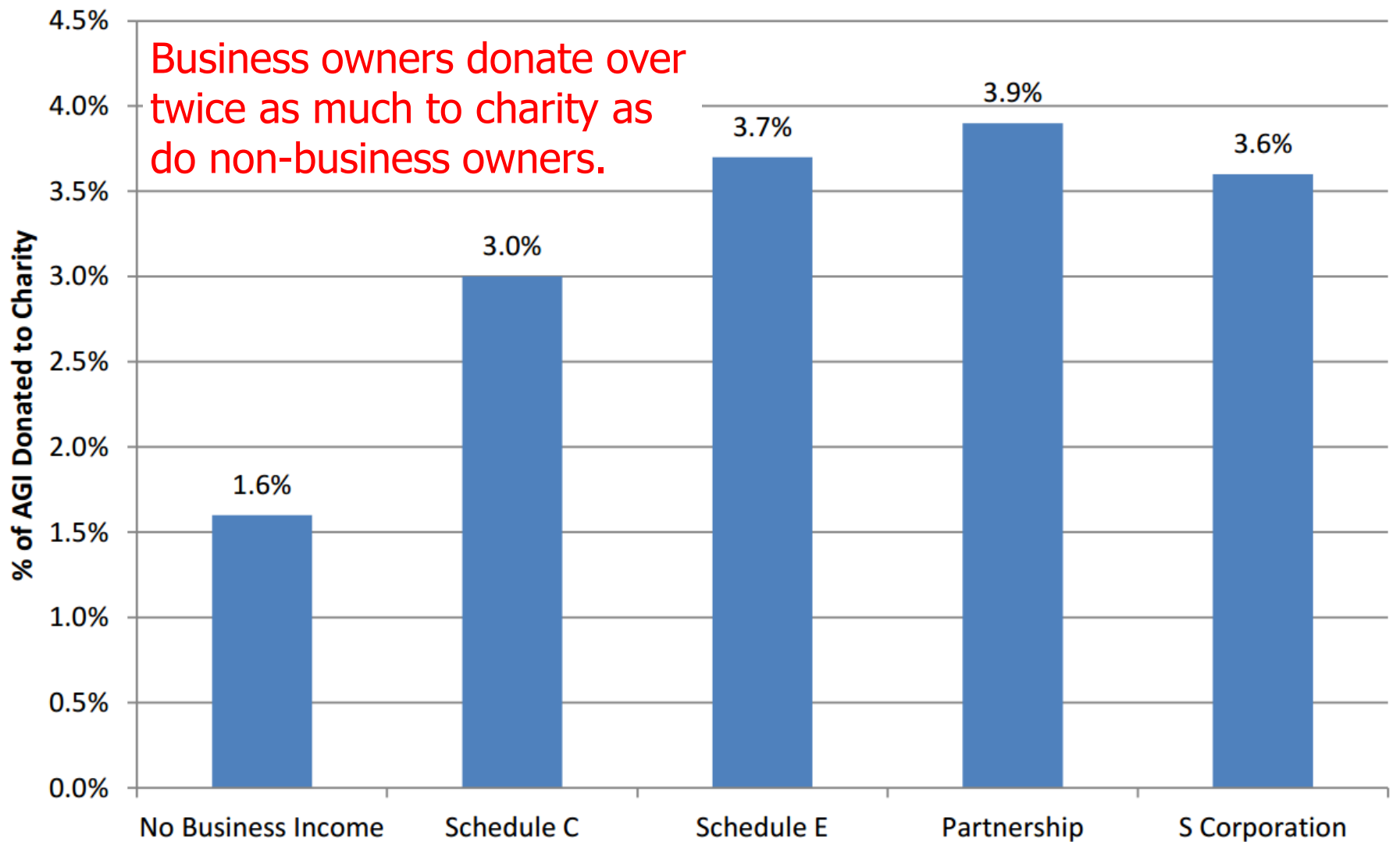


Data source: IRS sampling of federal tax returns.



You give more to charity.





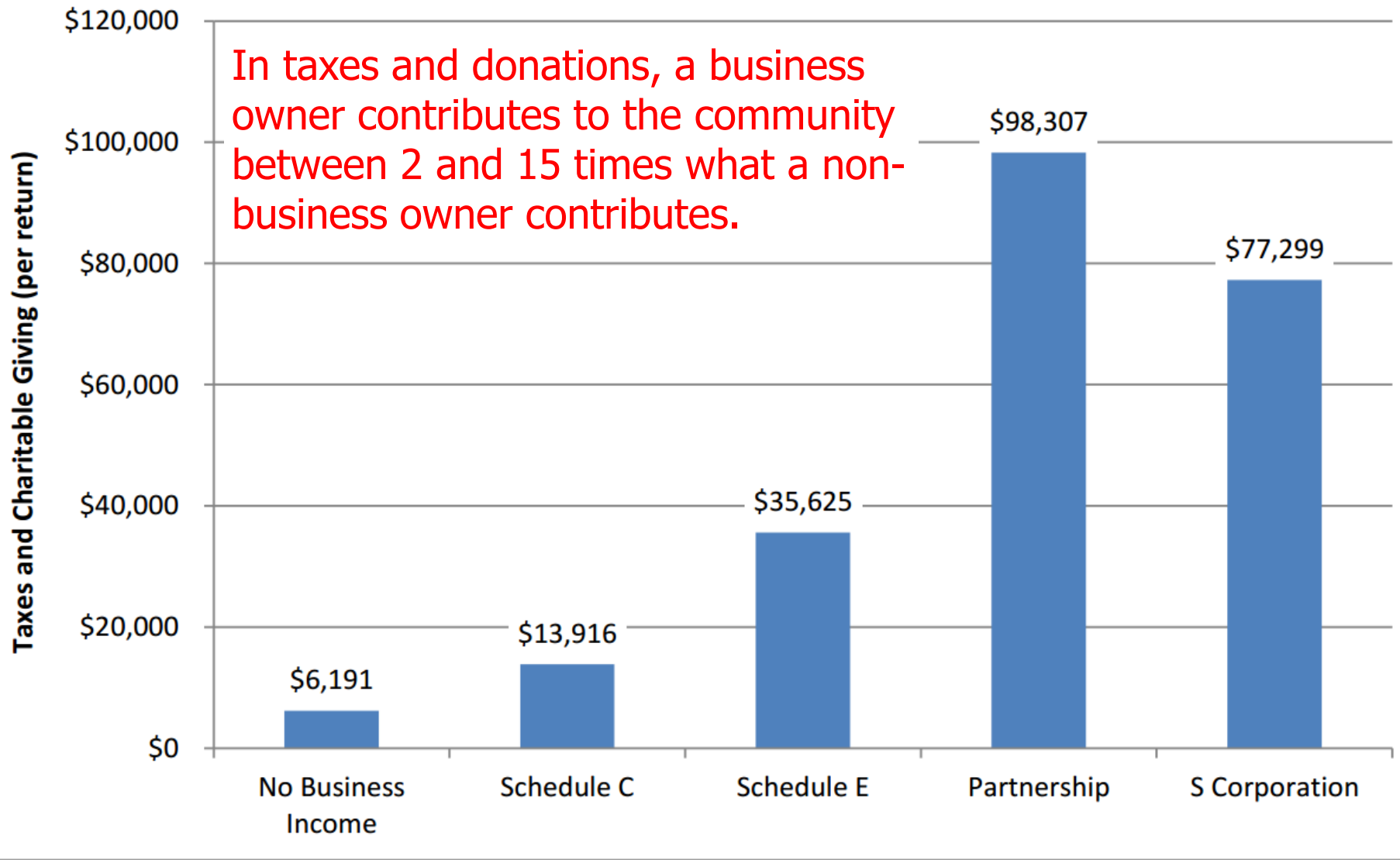
Data source: IRS sampling of federal tax returns.



**You contribute a lot
more than just jobs.**



In taxes and donations, a business owner contributes to the community between 2 and 15 times what a non-business owner contributes.



Data source: IRS sampling of federal tax returns.



Act like failure isn't an option.



Don't plan to fail, but don't be surprised if you do.

The average successful entrepreneur has three failures prior to his first success.



The Art and Science of Entrepreneurship

Antony Davies

September 5, 2014

