

The Art and Science of Entrepreneurship

www.antonydavies.org

Paragon Software, Co-founder and President

- Raised \$1 million investment
- Developed games based on the X-Men franchise
- Restructured into Take-Two Interactive
- Developed Grand Theft Auto
- IPO three years later; market cap \$2 billion.



Parabon Computation, Co-founder and CFO

- Raised \$20 million investment
- Developed first commercial grid computing platform
- Largest distributed computing provider
- 60 employees in northern Virginia



Repliqa, Co-founder and Chief Analytics Officer

- Raised \$2 million investment
- Developed discovery engine
- Sold eight months later



What are you?

Schumpeterian Entrepreneur (a disrupting force)

Creates new goods, services, or methods of production.

E.g., Travis Kalanick, Garrett Camp



Kirznerian Entrepreneur (an equilibrating force)

Discovers previously unnoticed profit opportunities.

E.g., Carl Thomas



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 one sentence.

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.

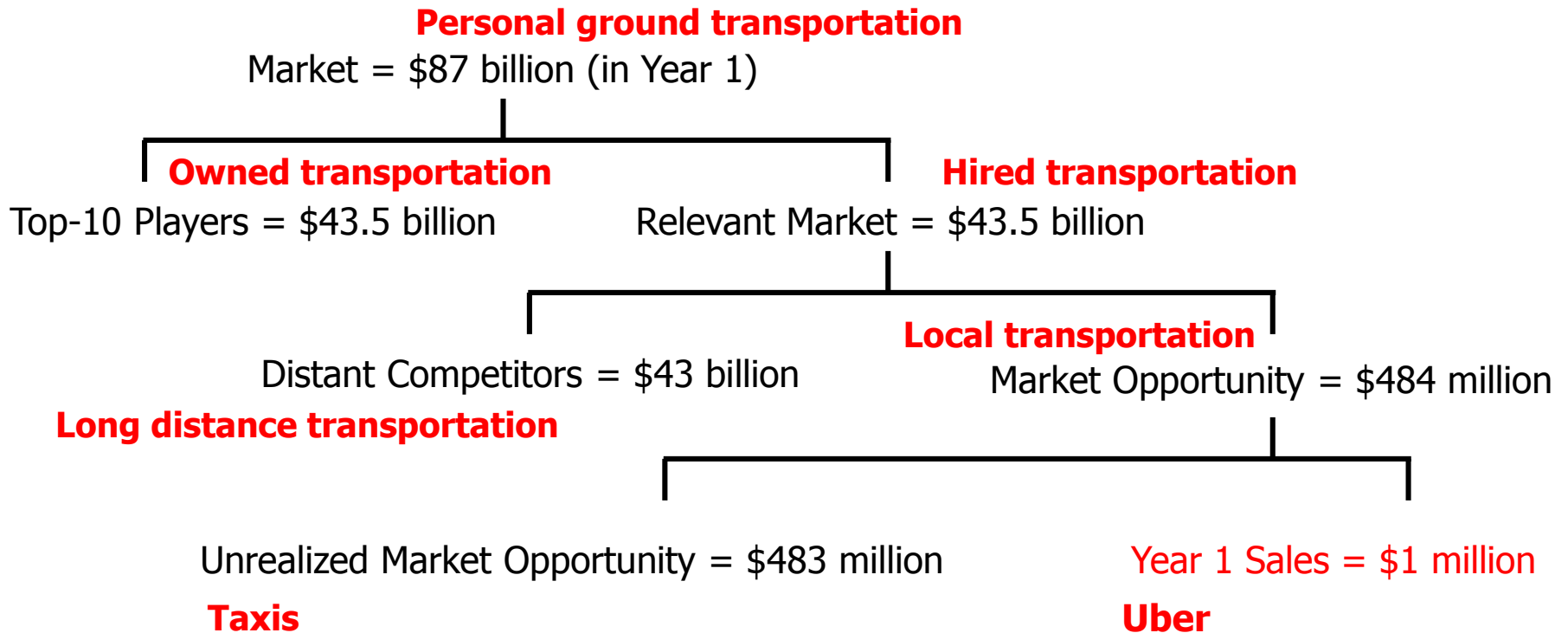
Identify customers' pain points

Traditional supercomputing is like having to buy a cow to get a glass of milk. Parabon sells by the glass.

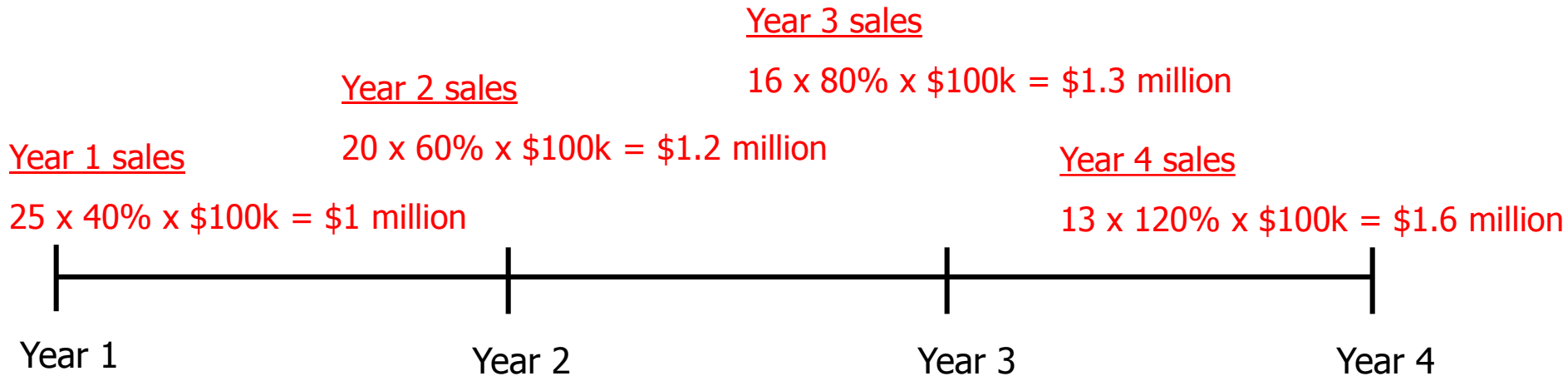
After answering questions, do the following

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

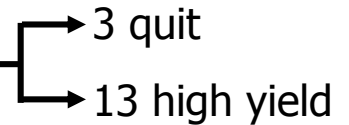
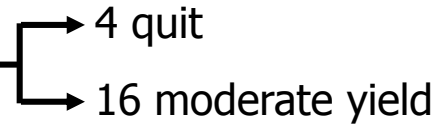
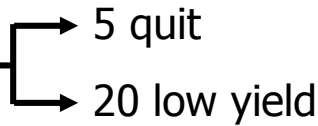
Top-Down Sales Forecast



Bottom-Up Sales Forecast



25 hires



Initial sales hires: 25

Annual Attrition: 20%

Annual Quota = 8 units @ \$12,000 each = \$100,000

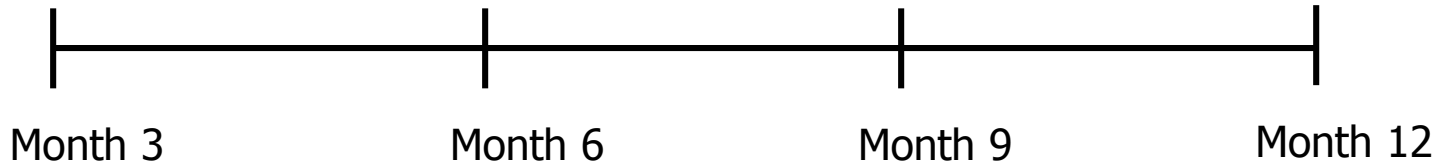
New hire = 40% of quota

Low yield = 60% of quota

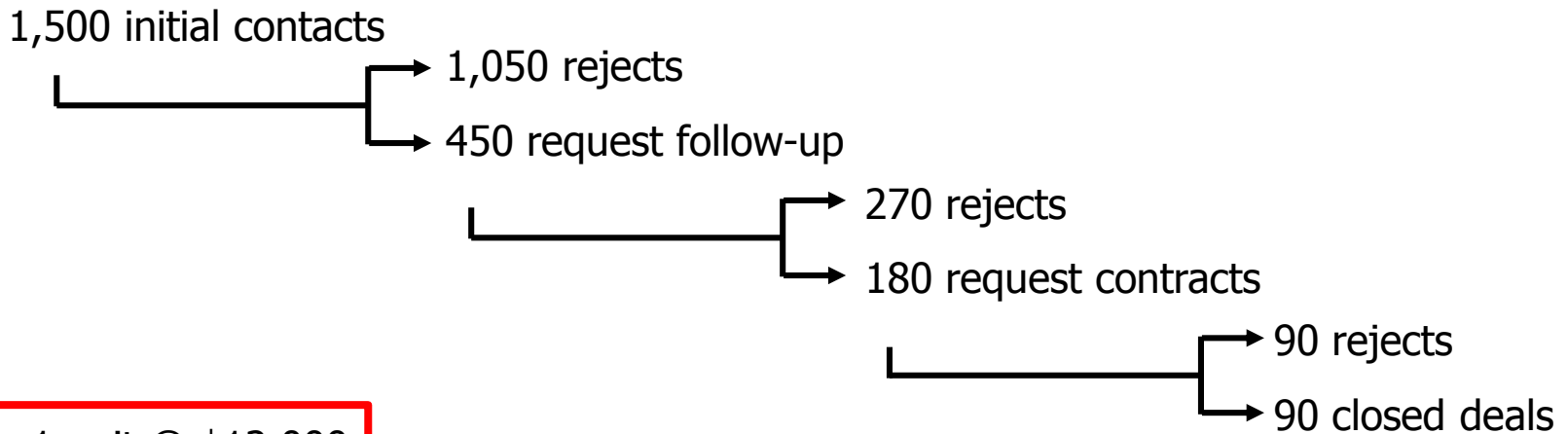
Moderate yield = 80% of quota

High yield = 120% of quota

Pipeline Sales Forecast



25 salespeople x 60 days



Sale = 1 unit @ \$12,000

Sales cycle = 12 months

Months 1 – 3: Initial contacts (1 per salesperson per day)

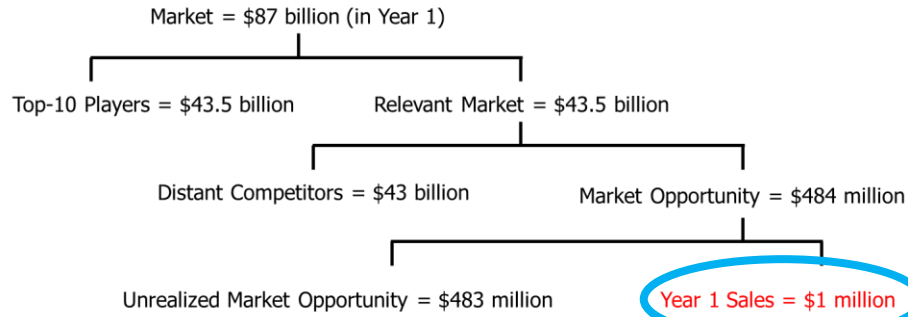
Months 4 – 6: 30% of initial contacts request a follow-up

Months 7 – 9: 40% of follow-ups request a contract

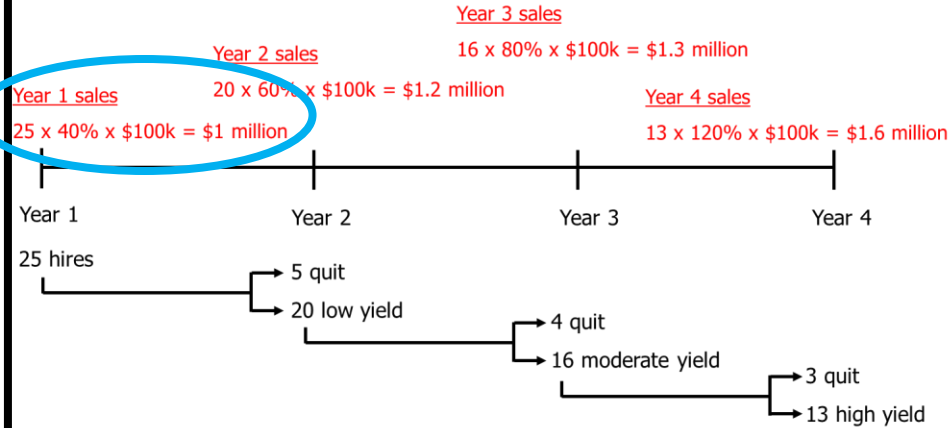
Months 10 – 12: 50% of contracts close

90 deals x \$12,000 = \$1 million

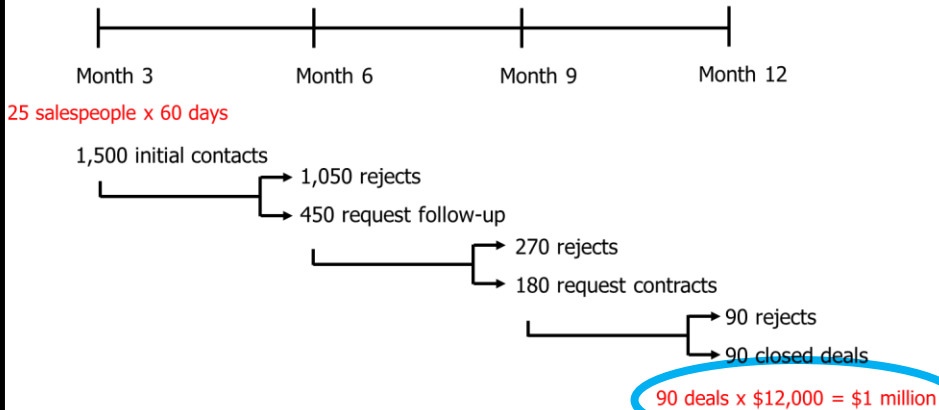
Top-Down Sales Forecast



Bottom-Up Sales Forecast



Pipeline Sales Forecast



After answering questions, do the following

1. Describe your product in a dozen words.
2. Build a business plan.
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%

Valuation implies expected profit

$$\text{Annual Profit} = \frac{(\text{Valuation})(\text{discount rate})}{1 - (1 + \text{discount rate})^{-\text{horizon}}}$$

What does \$1 million valuation imply?

Early stage firm → discount rate = 50%

Horizon = 10 years

$$\text{Annual Profit} = \frac{(\$1 \text{ million})(0.5)}{1 - (1 + 0.5)^{-10}} = \$508,000$$

WARNINGS

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

VCs want to see proof of traction.

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).

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.

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. Maintaining control stymies fund raising and decision making.

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

Early contributors rarely contribute in later stages.

Don't waste time and effort on nonsense.

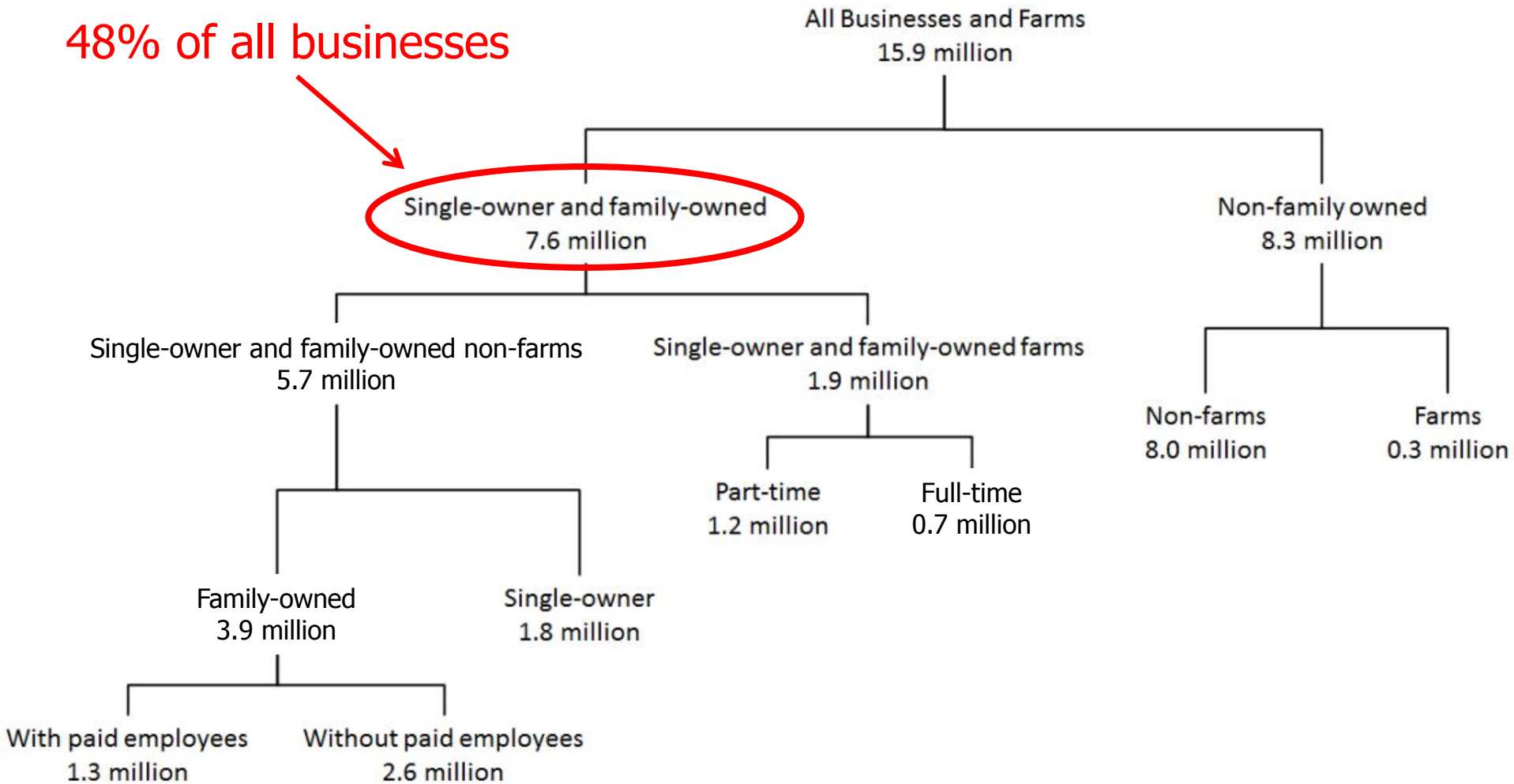
You don't need business stationary, a name, a logo, titles. Let experts handle these later.

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

Successful entrepreneurs usually can't distinguish between luck and skill.

You're not alone.

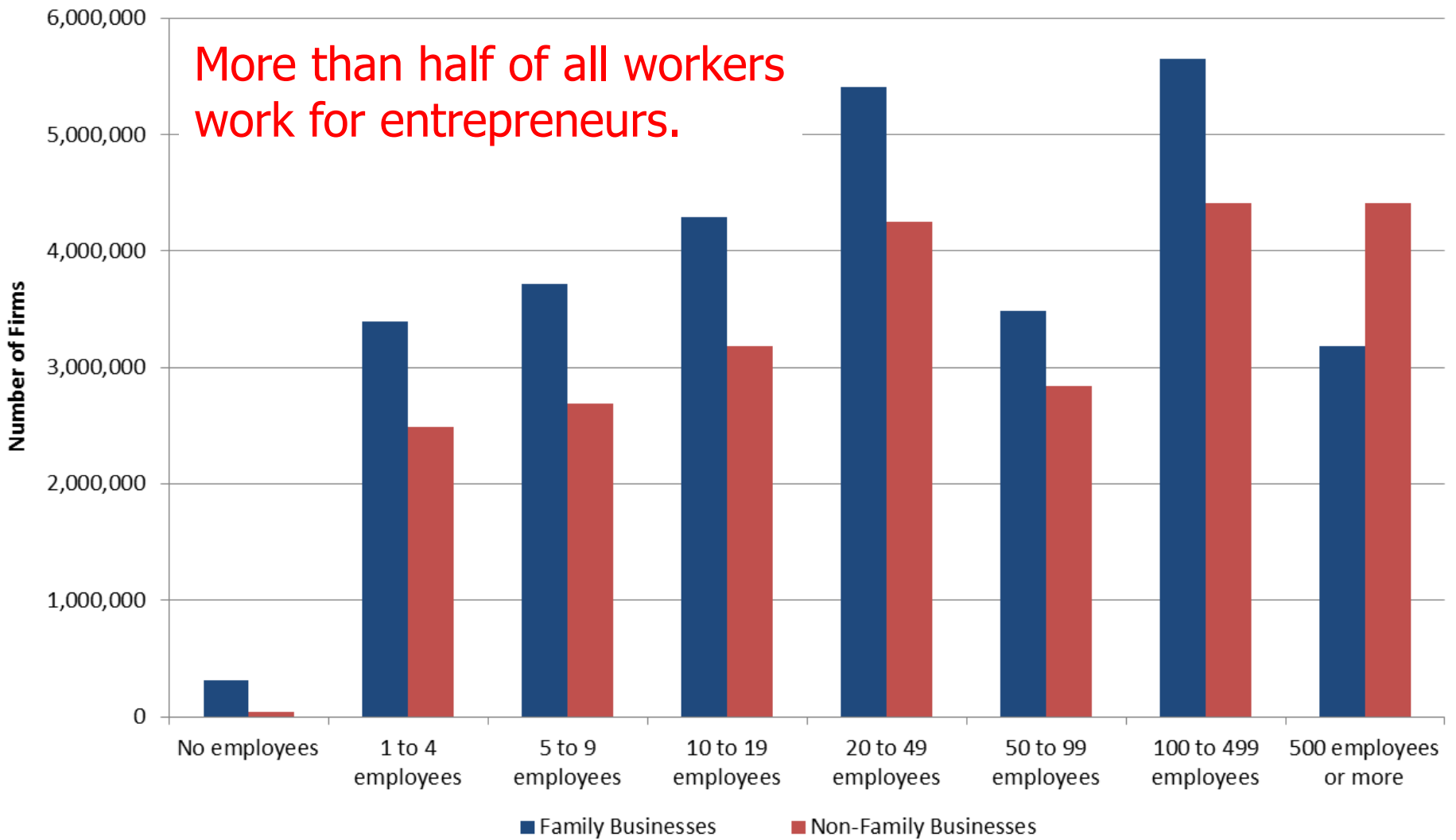
48% of all businesses



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.

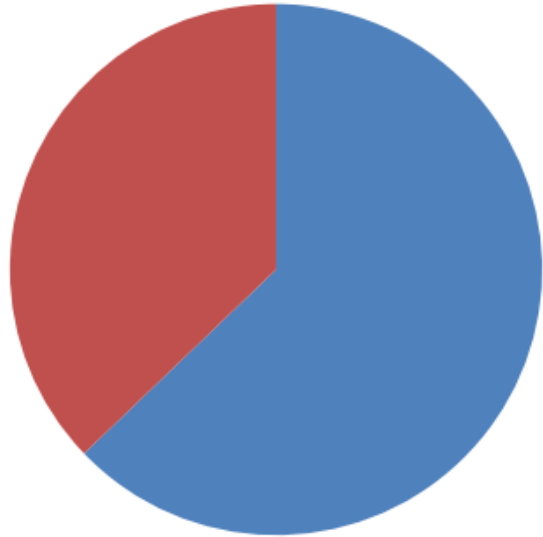
More than half of all workers work for entrepreneurs.



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

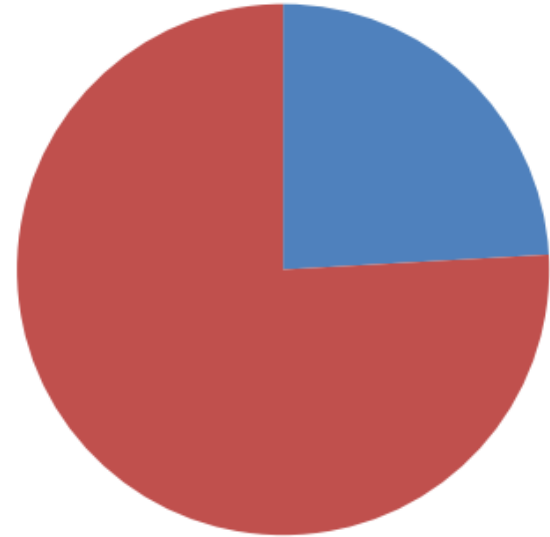
You are (largely) women.

Family Businesses



■ 50% or More Female Owned

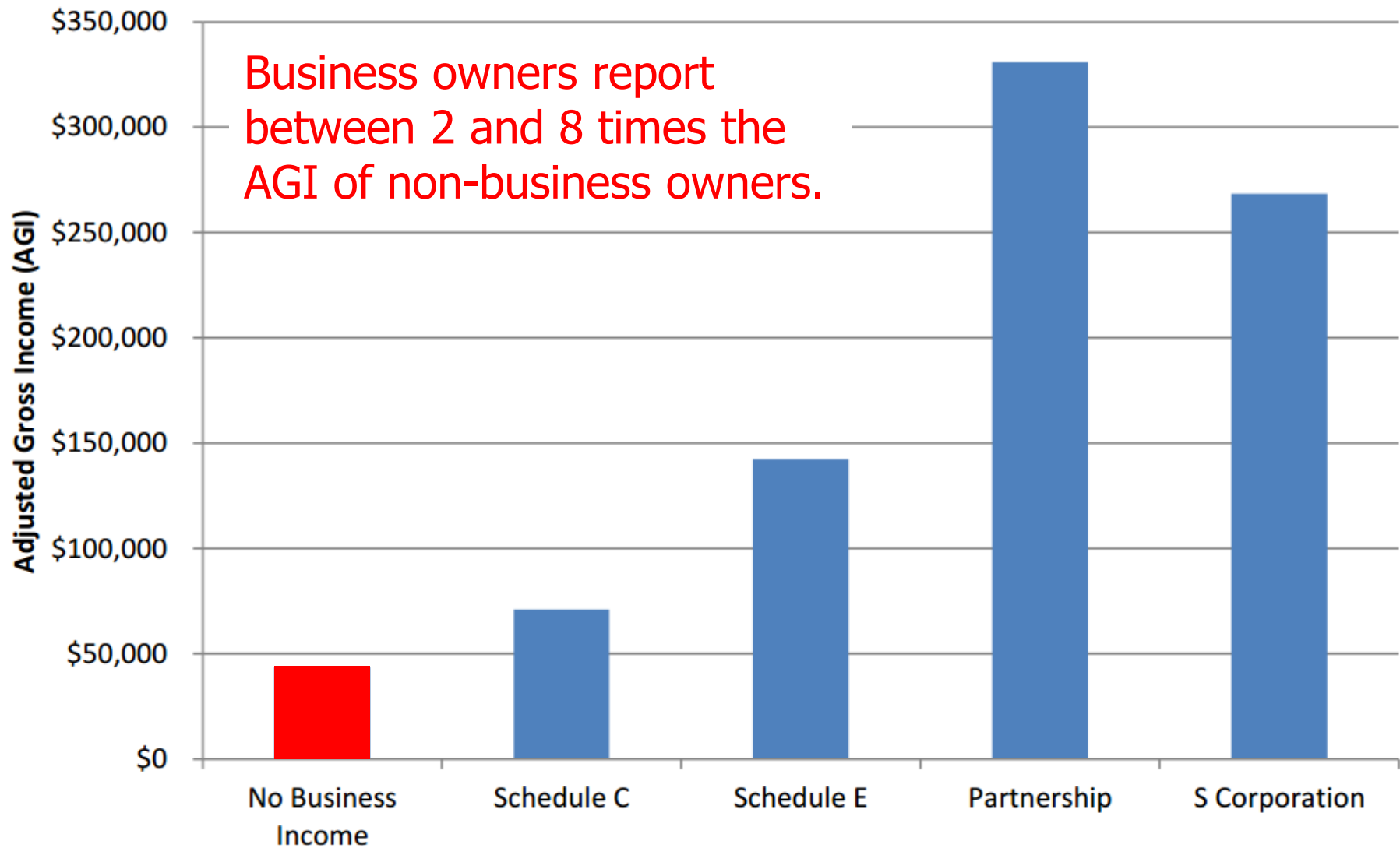
Non-Family Businesses



■ 50% or More Female Owned

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

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

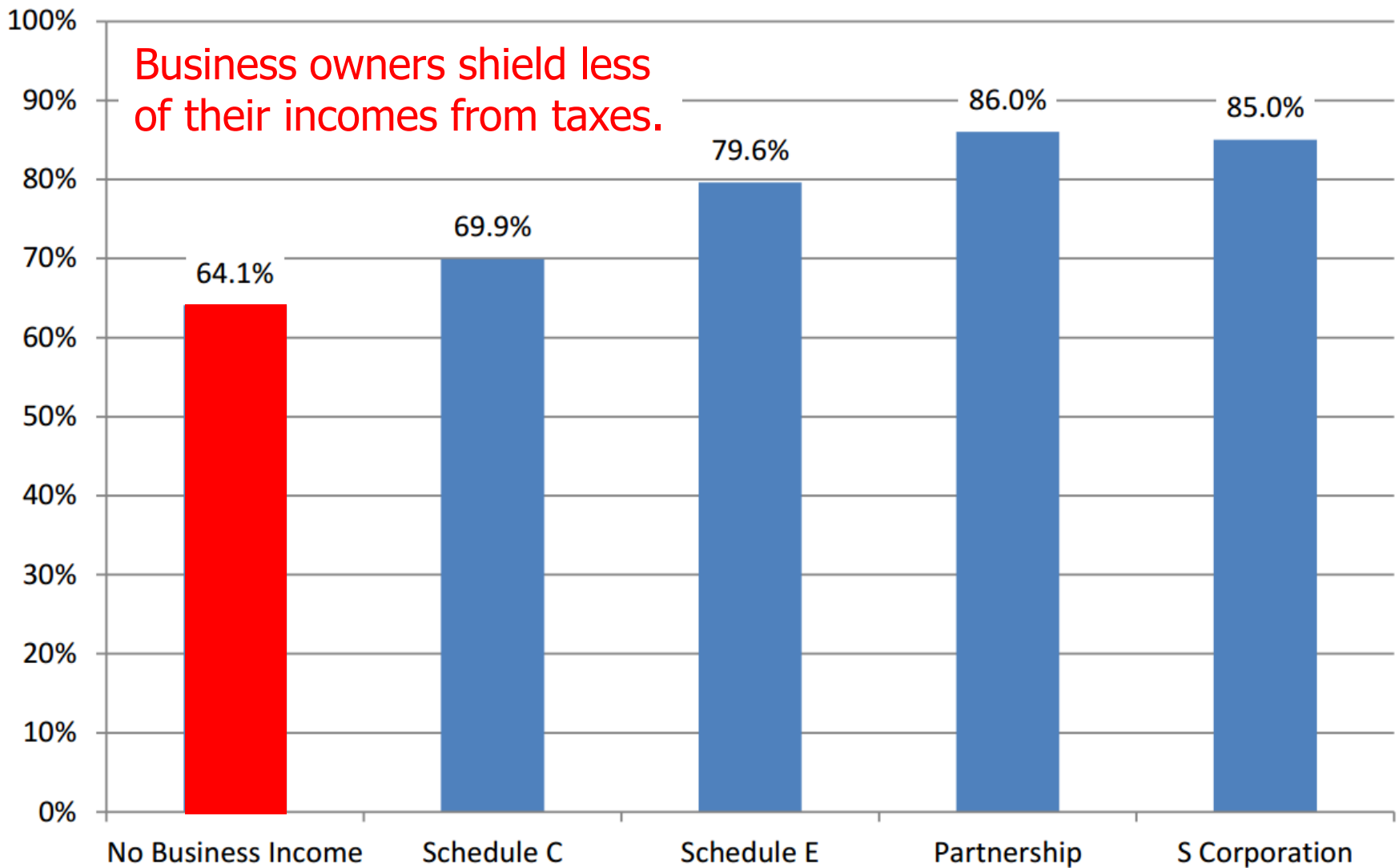


Data source: IRS sampling of federal tax returns.

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

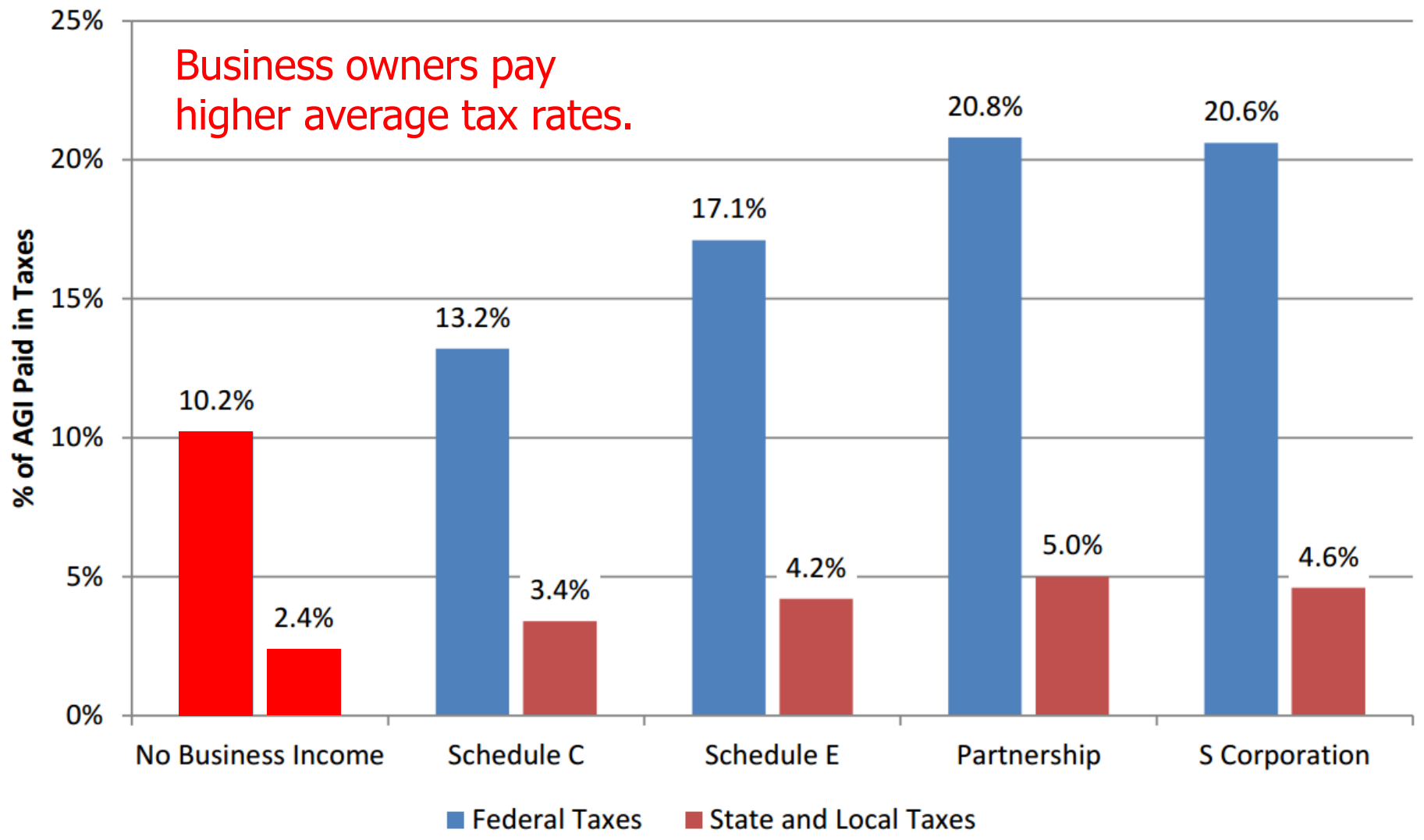
% of AGI Subject to Taxation

Business owners shield less
of their incomes from taxes.



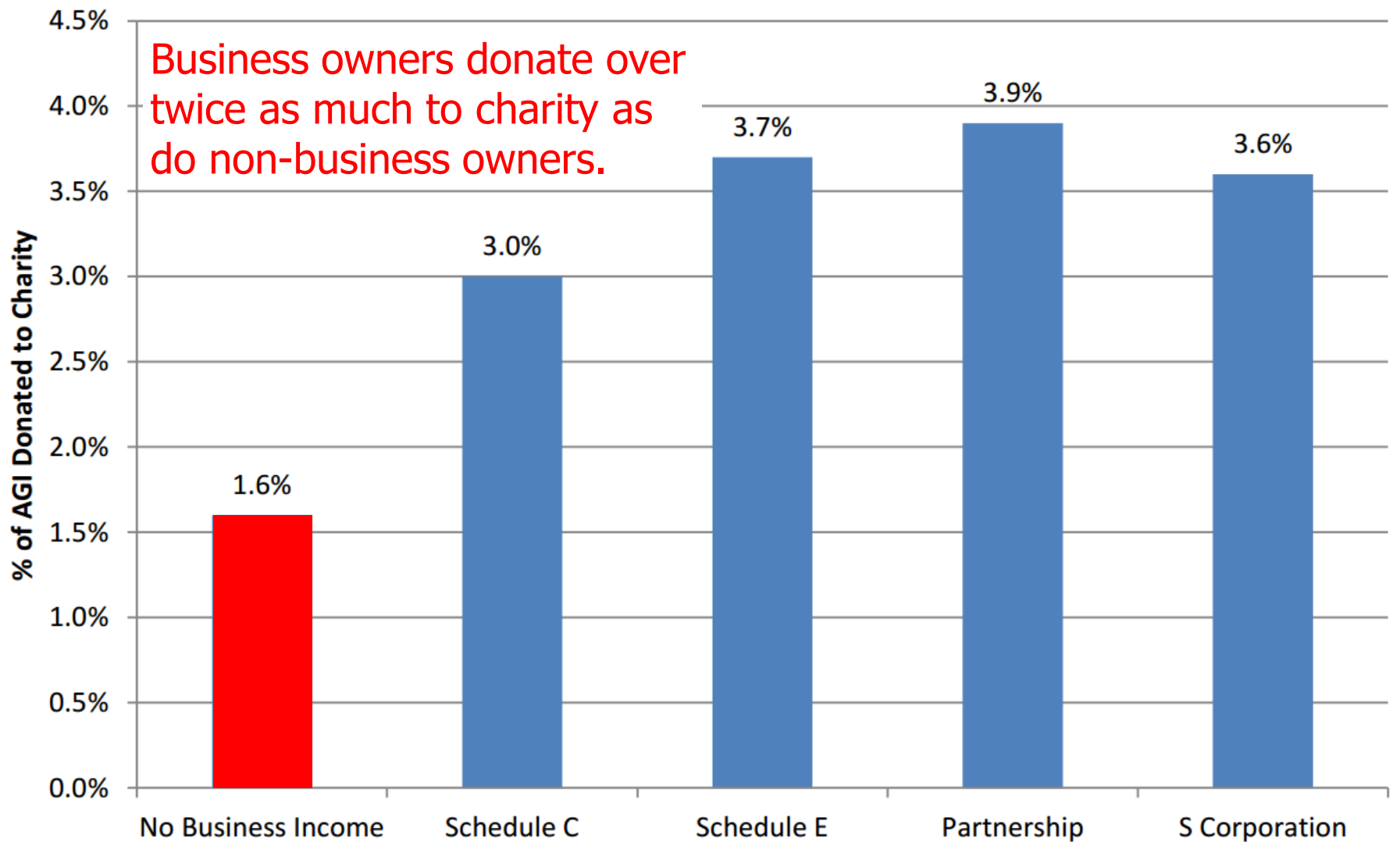
Data source: IRS sampling of federal tax returns.

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



Data source: IRS sampling of federal tax returns.

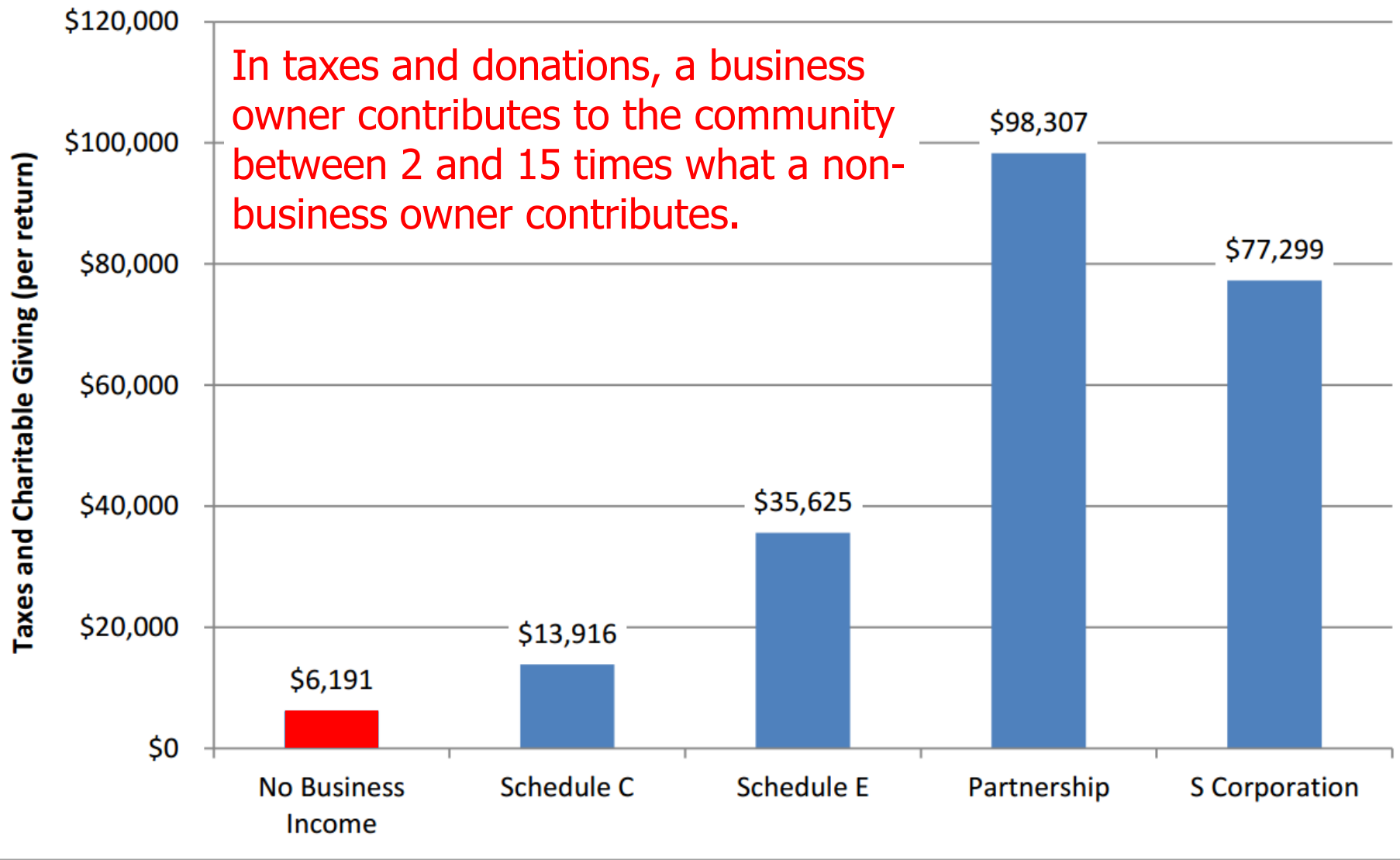
You give more to charity.



Data source: IRS sampling of federal tax returns.

**Don't be ashamed of seeking profits.
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.

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