Work for yourself, work for the U It's not personal, it's business. Michael Corleone. slides by Gary W. Oehlert, rev. S. Weisberg Suppose you want to run your own consulting business. School of Statistics You'll want it to be successful. University of Minnesota Here are a few tips, mostly from ASA Section on Statistical Consulting April 29, 2009 newsletters. STAT8801 (Univ. of Minnesota) April 29, 2009 1 / 32 STAT8801 (Univ. of Minnesota) April 29, 2009 2/32

Should you do it?

- Can you handle it if a client doesn't pay you for a couple of months, or at all?
- Can you say no to those really awful jobs (you'll be happier)?
- Can you postpone dinner or a vacation to do last minute stuff?
- Are you a good writer?
- Can you negotiate contracts? How about changes or extensions?
- Do you despise air travel?
- Are you willing to say no? (You should be.)
- Can you meet deadlines?

There are advantages to your own consulting business.

- Flexibility (your own boss).
- Earning potential.
- No red tape.

Advantages

• Often more diverse work.

You need a business plan!

There are also disadvantages.

- Great potential to fail.
- Little or no support.
- Communication is often more difficult (distance).
- You have to do a lot of non-statistics things.
- Isolation.

Talk to Small Business Administration or www.score.org.

Think things through, consider all aspects, plan for contingencies.

Should you be Sole Proprietorship, or Partnership, or Corporation?

Do you have 6 months of money/work to get started?

Do you have enough experience that anyone will hire you to begin with?

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Startup issues			Costs to consider			
Legal costs.Accounting advice.			 Rent. Taxes (FICA, payrol Insurance including Retirement savings. Secretarial support. Computing and softe Travel. Supplies. Continuing education 	medical (it's not cheap). ware.		

Someone needs to do:

- Bookkeeping.
- Payroll.
- Taxes.
- Hiring?
- Employee evaluation?
- Web site design/maintanence.

Marketing

You need to do it, and keep it up, even during busy times.

How might you market?

- Publish papers.
- Make presentations at scientific meetings.
- Have exhibits at meetings.
- Contact current, former, potential clients.
- Distribute a newsletter.
- Professional organization listings.

Word of mouth is best, once it gets going. Get it from high quality work, done on time.

Advertising may not paid off.

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General advice	How much should you earn?
 Most of these are "obvious": Find a niche, probably based on something you know. Build and hold a client base in the niche. Manage cash flow; spend conservatively. Negotiate contracts wisely (look for the MAD person—money, authority, desire). Manage time wisely. If you can: Avoid late involvement in projects. Avoid emergency clients. 	 Figure out how much you need to earn in a year. You must pay for: Your salary. Taxes. Computing and similar necessities for business. You should pay for: Insurance. Retirement savings. Continuing education. Administrative support?

Remember, not everything is billable!

You'll work a lot more than you can bill.

Various suggestions:

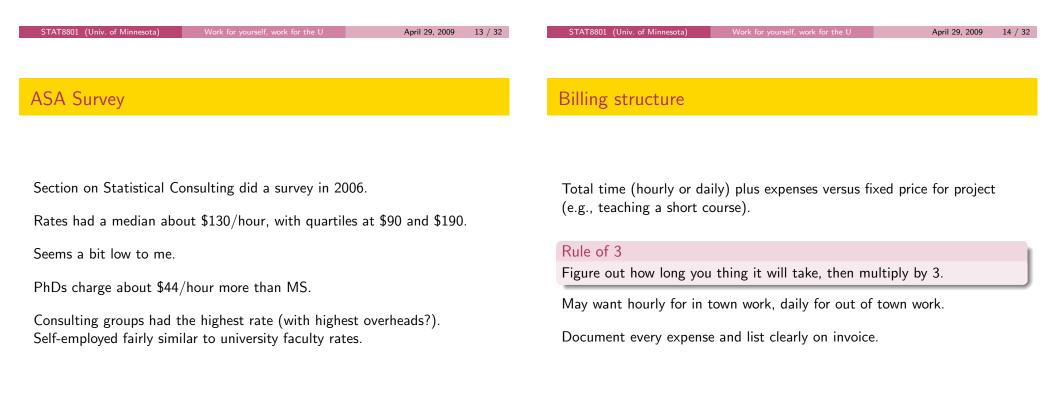
- 500–1000 billable hours per year.
- 100 billable days per year.

Hourly rate = $\frac{\text{Total needed in year}}{\text{number of billable hours}}$ Billable hours is perhaps about 750.

If you want \$75,000 per year, multiply by about 1.4 or more to cover taxes. Add \$6,000 for health insurance and \$10,000 for retirement. That's \$121,000 total cost neglecting a lot of expenses.

Hourly is

$$\frac{\$121,000}{750 \text{hours}} = \$160/\text{hours}$$



Potential problems

Summary

Talk is cheap. May say they'd love to hire you, but they never do.

Negotiate contracts to allow "change orders", but extra cost for extra work.

For "cash flow" clients, release intermediate products only when paid.

- Decide whether you should run a business.
- Plan the business carefully.
- Charge an appropriate amount.

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ork for [a] U	Resources			
cademic Ijective.	 Where to look for guidance: The IMS New Researchers' Survival Guide, www.imstat.org/ 			
 Learned or scholarly but lacking in worldliness, common sense, or practicality. Scholarly to the point of being unaware of the outside world. See pedantic. 	 publications/books/NewResearchersGuide.pdf Trumbo, B (1989) "How to Get Your First Research Grant," Statistical Science. Speed, T. (2005) "How to do Statistical Research," IMS Bulletin, bulletin.imstat.org/archive/34/1 Mentor. Institutional resources. 			
 Theoretical or speculative without a practical purpose or intention. See theoretical. 				

Teaching

Advantages:

- Flexibility of schedule.
- Chance to do research and follow interests.
- Security (eventually).
- Usually good benefits.
- Students.

Disadvantages:

- Long hours.
- Lower pay than industry.
- Must pass tenure hurdle.
- Students.

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Some really like teaching, others merely tolerate it.

If you really dislike teaching, don't go into academics.

If you really like teaching but don't care for research, don't go to a research-1 institution.

That seems obvious advice, but many have ignored it.

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Job Search

Consider your strengths and likes, and narrow your list to 15 or so positions.

Emphasize research interests and relevant experience in cover letter.

Make it easy on your references (give them lists of names and addresses and background on positions).

Meet deadlines and requirements stated in ads. Ad wording is often precise; e.g. "Application review begins on Jan. 14, 2009. Position open until filled" is different from "Applications must be received by Jan. 14, 2009."

The Interview

Research departmental members before you go.

- Look at publications.
- See how you and they intersect.

Research the program before you go.

- What is taught.
- Who teaches what.

Try to figure out how you could fit in.

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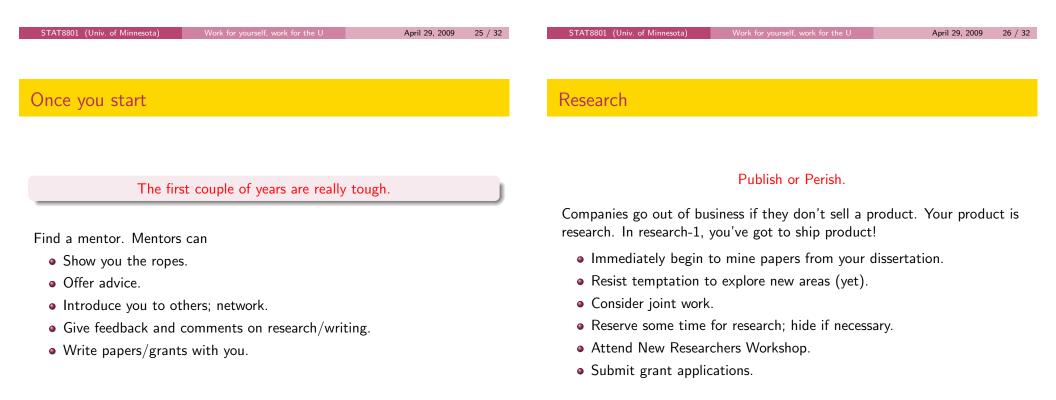
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Ask about

- Teaching load and other duties.
- Research expectations.
- Grant/contract expectations.
- Consulting opportunities.
- Salary, fringe benefits.
- How department fits in with college/university.
- Computing.
- Flex time, day care, etc., and spousal issues.
- Sabbatical/leave opportunities.

Negotiating

- Speak freely, frankly, and fairly.
- Know your market value (see Amstat News surveys).
- Ask for course relief.
- Ask for start-up funding, travel money.
- Ask for moving expenses.
- Parking?
- Meet deadlines; don't lead them on.



Teaching

Service

Teaching will consume an enormous amount of time and emotional energy.

- See what others have done; borrow what works.
- School may have teaching workshops.
- Prepare!
- Keep good notes (and reuse them).

Don't seek service — it will find you.

Special risk for women and minorities.

But do your share.

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Time management				Summary			

- Maintain office hours.
- Try not to see students outside of office hours.
- Preserve time to work undisturbed.
- Work one hour per day on research nearest completion.
- Reserve time for partner/family.

- Choose an appropriate academic job.
- Survive first few years.
- Manage time wisely.