

Professional Development II: Career planning (and graduate/professional school preparation)

Today's questions:

I. What careers can you pursue with a biology-related degree?

II. How should you prepare for graduate school, professional school, or a job in industry?

(cell phones off, please)

Q1. In some species, inbreeding via self-fertilization occurs routinely, but no inbreeding depression is observed. How is this possible?

- 1. Deleterious recessives have been eliminated via intense selection in the past.**
- 2. The observed phenotypic variation is due to gene x environment interactions.**
- 3. The traits involved are polygenic.**
- 4. The individuals in the population are homozygous.**

A quick note: In a professional email, you don't need

To:

From:

RE:

at the top of the body of the email (before the salutation).

Why?

What are the #1 career choices of Bio180 students?

Dentist (DDS)

Ecology/conservation

Law/business

Pharmacy (PharmD)

PT/OT/allied health

Physician (MD)

Plant Science

Public/global health

Research: biomed/biotech

Teaching

Undecided

Other

What do graduates in the biological sciences actually do?

FIELD	POSITION
AGRONOMY	Agriculture extension officer
	Farm implement/supply dealer
	Food scientist (research)
	Organic farm owner/manager
	Plant/animal breeding/research
ARTS	Film maker (freelance)
	Nature photographer
BIOENGINEERING	Green building design
	Biomimicry (product design)
BUSINESS AND FINANCE	Commercial real estate developer
	Executive (Starbucks Inc. Amgen)
	Investment banker
	Public relations officer
	Stock broker
COMPUTERS AND TECHNOLOGY	Executive (President of company)
	Technical writer
	Software designer
	Software production/coding
EDUCATION	Educational outreach (e.g. Amgen, Fred Hutch, Puget Sound Energy)
	K-6 teaching
	Middle school science
	High school biology
	College teaching (undergraduate)
	Dental school teaching
	Medical school teaching
	Nursing school teaching
	Pharmacy school teaching

FIELD	POSITION
ENVIRONMENTAL & LAND MANAGEMENT	Environmental policy consultant
	Environmental engineer
	Land manager: US Coast Guard
	Land manager: US Army
	Public utility land manager
FISHERIES AND WILDLIFE	Aquaculture farmer
	Fisheries analyst
	Fish hatchery technician
	Fisheries manager
	Wildlife biologist/manager
FORENSICS	Assistant
	DNA technologist
	Entomology
	Pathologist
	Researcher
FORESTRY	Executive
	Forester

FIELD	POSITION
HEALTH CARE (CLINICAL)	Administration
	Art therapy
	Bioethicist
	Dentist—many specialties
	Dietician/nutritionist
	Environmental health specialist
	Genetic counselor
	Medical illustrator
	Medical laboratory technician
	Medical librarian
	Medical technologist
	Nurse—many specialties
	Nurse practitioner
	Occupational therapy
	Optometrist
	Paramedic
	Pharmacist
	Pharmacy technician
	Physical therapy
	Physician—many specialties
	Physician's assistant
	Public health worker/educator
	Sports therapy/trainer
	Toxicologist

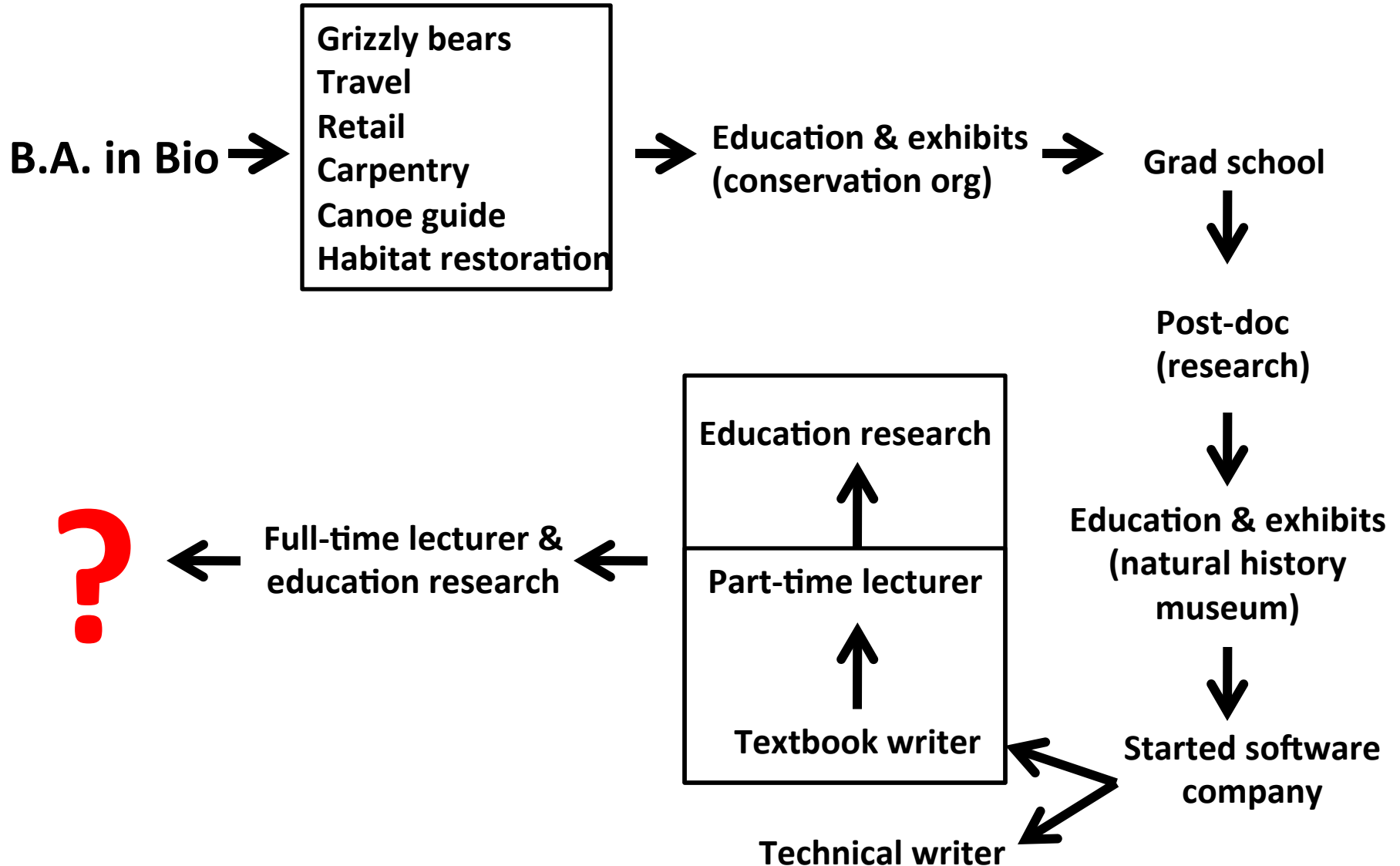
FIELD	POSITION
HEALTH CARE (RESEARCH)	Administration/fundraising/grantwriting
	Bioinformatics
	Biostatistician
	Epidemiologist
	Public health researcher
	Research assistant
	Research scientist
JOURNALISM AND PUBLISHING	Magazine reporter/editor
	Newspaper reporter
	Science writer—freelance ; Science writer—magazine, newspaper
	Textbooks: author, illustrator, editor, project manager
	Wildlife writer—freelance
LANDSCAPING, HORTICULTURE	Business owner
	Greenhouse manager
LAW	Environmental
	Intellectual property and patents
	FDA and other regulatory
	Real estate, land conservation
LAW ENFORCEMENT	Border patrol
	Customs—plant and animal inspection and trade
	Local police
	State patrol

FIELD	POSITION
OTHER	Boat builder
	Carpenter
	Contractor
	Dad
	Masseuse
	Mom
	Mortician
	Ski bum
	Soccer player
RESEARCH (MISCELLANEOUS)	Ethnobotanist
	Project manager, biotechnology company
	Research scientist, biotechnology company
	Research technician
RESTORATION AND CONSERVATION	Business owner
	Conservation organization: administration, researcher, educator, publicist
	Researcher/designer
	Volunteer coordinator
RETAIL SALES	Executive/manager
	Store owner
SALES AND MARKETING	Health insurance: sales, analysis, administration
	Medical equipment and supplies
	Pharmaceuticals
	Pharmacy/medical supply
	Research equipment and supplies

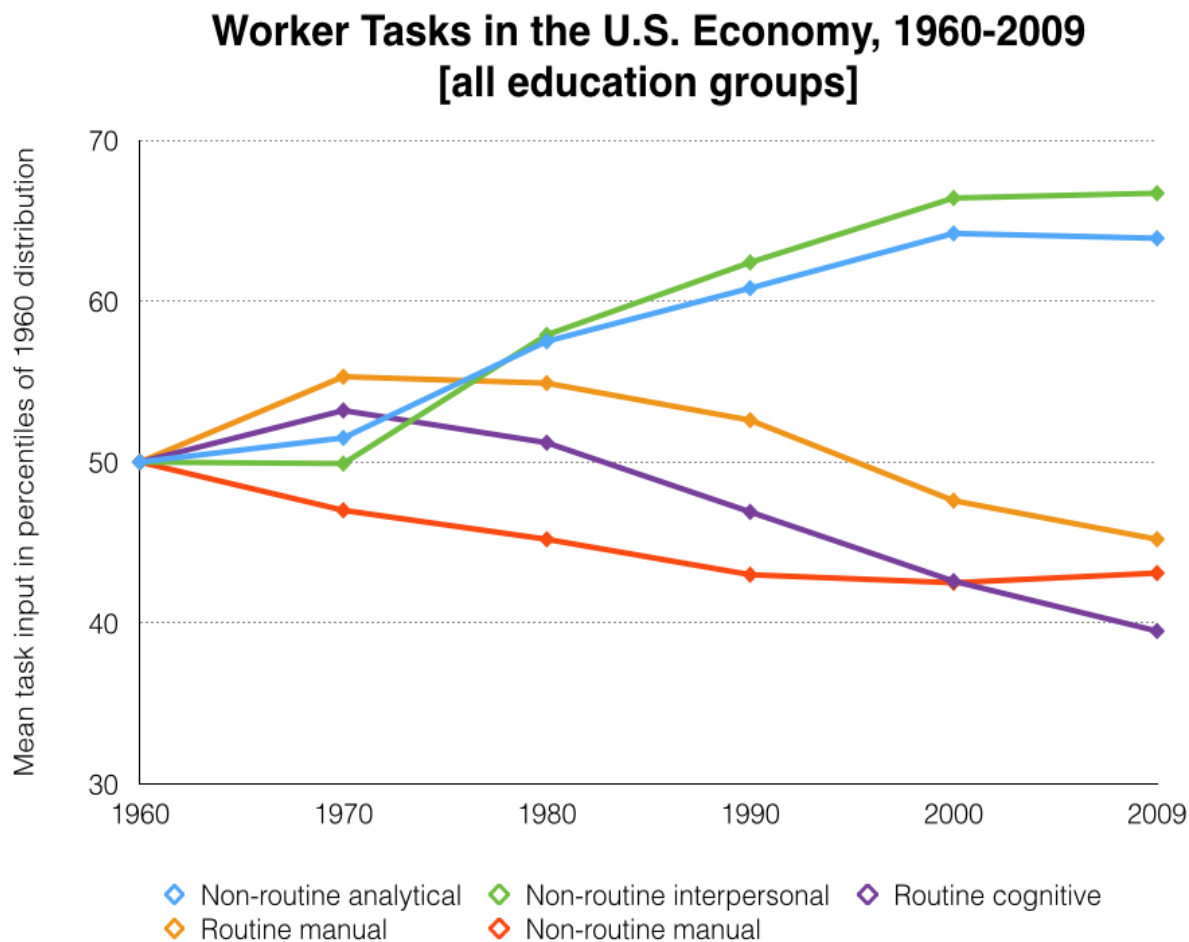
FIELD	POSITION
TOURISM	EcoTourism director
	EcoTourism guide
	Whitewater rafting guide
VETERINARY MEDICINE	Veterinarian
	Veterinarian assistant
ZOOS, AQUARIUMS, SCIENCE OR NATURAL HISTORY MUSEUMS, HEALTH/MEDICAL MUSEUM, PARKS	Curator/keeper
	Development/fundraising
	Director/administrator
	Exhibit designer, project manager
	Park design
	Park ranger
	Publicity/public relations

Consider my friends A&T—former Bio180 students

Consider my career trajectory:



II. How should you prepare for graduate school, professional school, or a job in industry?



Autor, D. H., & Price, B. (2013, June). *The changing task composition of the U.S. labor market: An update of Autor, Levy, & Murnane (2003)*.
Available at <http://economics.mit.edu/files/9758>

dangerouslyirrelevant.org

From the sheets we've passed out, what are the top 3 attributes of successful applicants? How will you get better at them?

What is the role of your numbers (GPA and/or scores on DAT/MCAT/PCAT/GRE)?

Why is the average age of matriculation in med school 25? Why has it been increasing recently?

The three most revealing interview questions:

- 1. What are you going to do to change the world?**
- 2. Tell me about a book you have read recently and how it has changed you?**
- 3. Do you enjoy your own mind? And if so, how?**

How should you go about getting letters of recommendation?