

HEPAP Demography Committee Update

2010/2011

B. Carithers
L. Dixon
G. Gelmini
D. Glenzinski
U. Mallik
H. Quinn
K. Scholberg*
M. Shochet

2011/2012

T. Brooks
B. Carithers
L. Dixon
G. Gelmini*
D. Glenzinski
J. Hobbs
U. Mallik
K. Scholberg
M. Shochet

*chair

<http://hepfolk.lbl.gov/census/>

- brief history & status of effort
- 2010 census report
- plans for the future

Brief history with emphasis on last ~5 years

- **Data collected by LBNL since 1998**
- **HEPAP demography committee formed in 2002**
- **Grant from DOE from 2006-2007**
 - **code/database setup at LBNL (B. Carithers)**
 - **checks at U. of Iowa (U. Mallik)**
 - **extensive and detailed cross-checks, verified manually; results fed back to database program**
- **No funding since 2007**
 - **system now in ~steady state**
 - **some ad-hoc technical improvements in past few years**

The current HEPfolk census 'steady state'



HEPFolk

The directory and census of U.S. particle physicists

Census

Institution's Menu

Logout

Set all Genders	Set the genders for all of your institution's members.
Edit Institution	Edit your institution's details.
Edit Person	Edit the personal details for a member of your institution.
Add Person	Adds a person to the list of members of your institution.
Delete Person	Deletes a person from the list of members of your institution.
Complete Institution	Signals the contribution from your institution is complete.
Re-enable Institution	Re-enable editing of your institution after it has been completed.

Institution's Details

Edit Details Hide Details

Name: Duke University Address: Physics Department Box 90305 Durham, NC , 27708 - 305
Local Contact: Ashutosh V. Kotwal Phone: 919-660-2563 Email: kotwal@phy.duke.edu
Local Administrator: Ashutosh V. Kotwal Phone: 919-660-2563 Email: kotwal@phy.duke.edu

List of Members

Show Members

There are 22 members at this institution (and an additional 1 departing)

- filled out each spring by 1 PI/institution
- maintained at LBNL (B. Carithers)

The database is available to the community



HEPFolk

The directory and census of U.S. particle physicists

Census

Welcome

Welcome to the join [DOE/NSF](#) directory and and census of U.S. particle physicists. You can search for one or more entries in this years directory by specifying one or more fields in the search panel below. You can look at the summaries and reports of the current and past censuses by following [this link](#).

Search

Last Name:
First or Nick Name:
Affiliation:
e-mail:

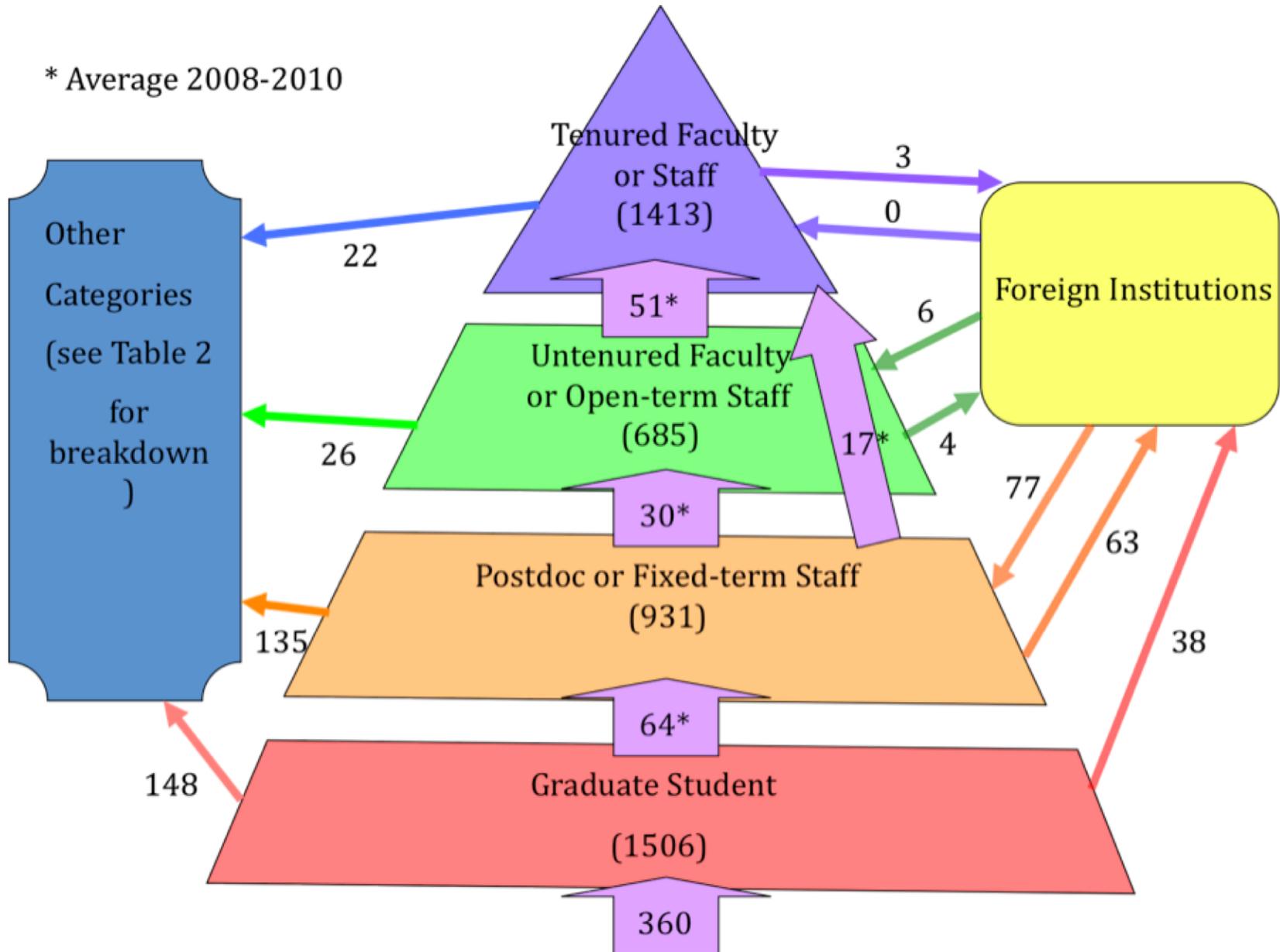
Search

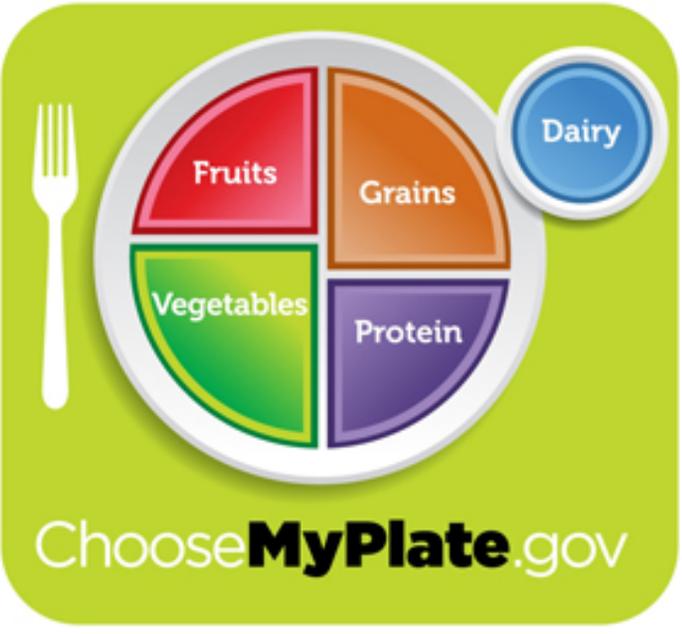
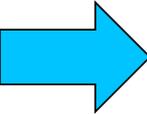
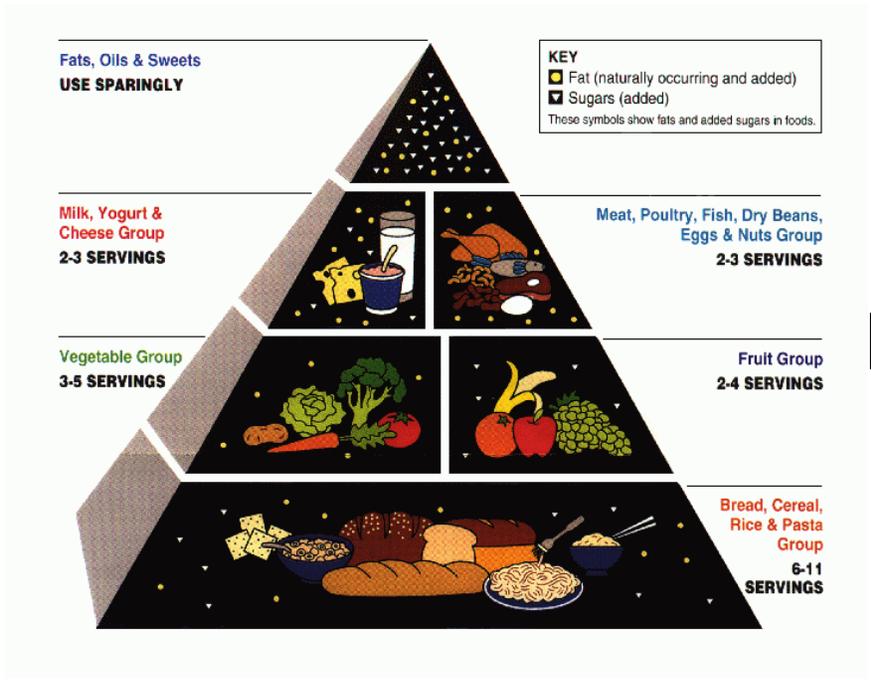
Update Institution

<http://hepfolk.lbl.gov/census/index.jsp>

2010 Census Report

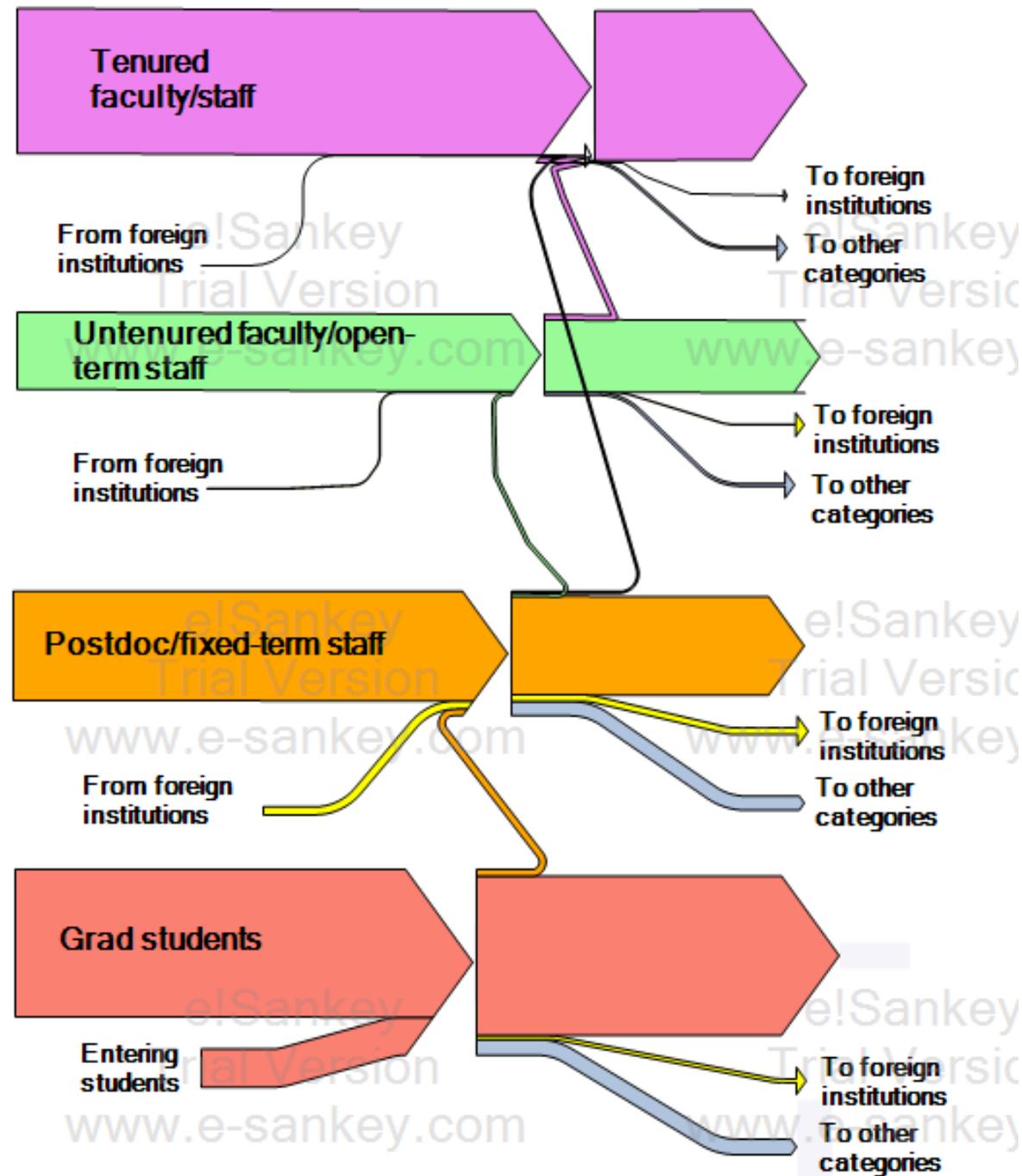
* Average 2008-2010





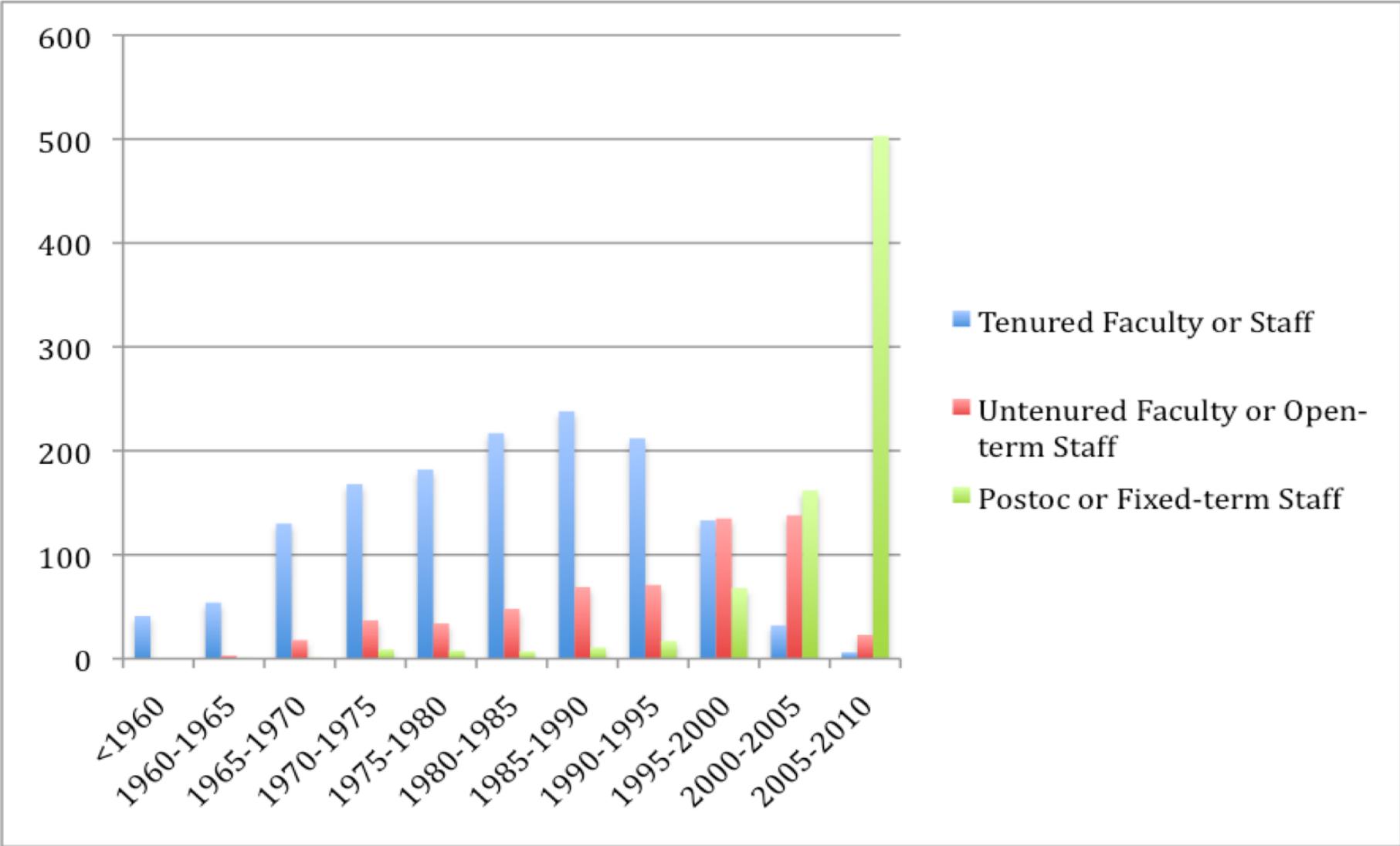
Flow (Sankey) Diagram*

arrow width proportional to number of people

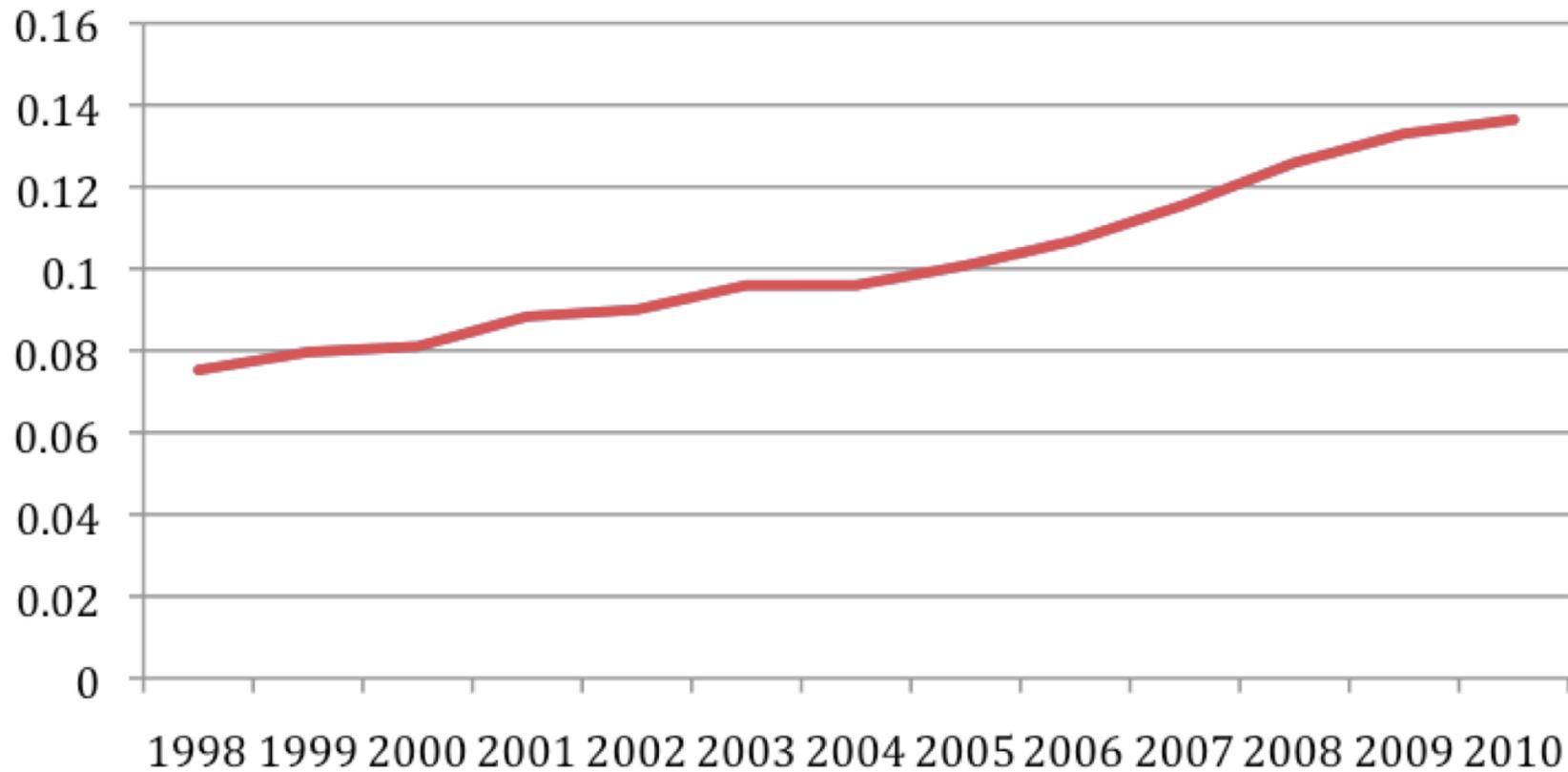


*do not buy e!Sankey software

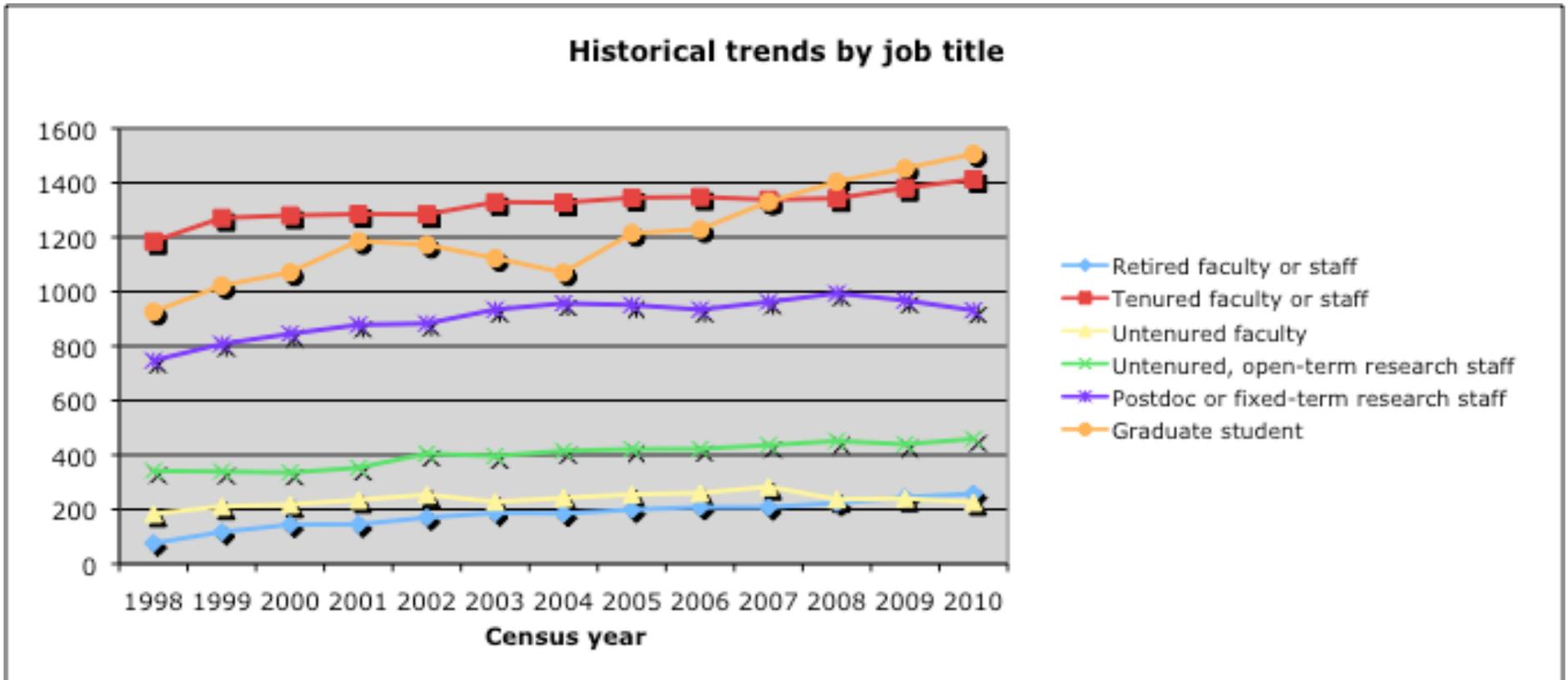
Positions by Ph.D. Year



Percentage of women



Improving, but too slowly!



Number of grad students is increasing:

- likely due to excitement of LHC
- large numbers go elsewhere after HEP:
 - ~ 60% of transitioning grad students leave HEP
 - ~ 55% of transitioning postdocs leave HEP

Departures from HEP may be (are likely)
a positive thing...

Where are they going?

What are they doing 5, 10 years later?

What impact are they having?

Departure table	Graduate Student	Postdoc or fixed-term research	Untenured faculty, open term research	Tenured faculty, research staff
HEP	142	142	17	17
Other physics	14	1	0	
Life sciences	2	3	0	
Teaching	4	1	1	
Industry	24	13	3	1
Engineering	1	1	0	
Other science			1	
Other	24	38	10	13
Unknown	79	78	11	8

Concrete information about departures is poor...
highly desirable to do better tracking

- **“One-pager” requested by Dennis Kovar in Oct 2010**
- **Submitted to Glen Crawford and Mike Procaro in Jan 2011; they responded with suggestions for full proposal**
- **Full proposal will be prepared**

- Track as far as possible the cohort of students and postdocs who have left the field within the past five years. How are these people employed? Were the high energy physics skills they acquired useful?
- Devise a long-term plan both to “maintain the base” and sustain enhanced long-term tracking in the future.

To accomplish these goals, we propose the hire of administrative personnel dedicated to the task of information gathering. Busy HEP community members will often ignore survey requests by mass email, or only fill in minimal information; if each survey is followed up with personal emails and/or phone calls, we expect to obtain high-quality, nearly-complete information[2]. Tracking down people who are no longer working in HEP will require further effort (web searching, emails and phone calling). We request funding for one person-year of effort; the worker(s) need not be a physicist, but will need close collaboration with members of the HEP community. The study will be conducted at the University of Iowa in collaboration with LBNL.

Details of proposal to request resources for deeper study being fleshed out:

1. Hire of a 'people person' to do legwork for tracking people long after departure from HEP:
there is precedent for ~65% response rate 5 years out ("Education in Nuclear Science" document)

http://science.energy.gov/~media/np/nsac/pdf/docs/nsac_cr_education_report_final.pdf

2. Technical development of database with a long term view
- currently discussing possible SPIRES/INSPIRE role (T. Brooks)

Other ideas:

- collect 'anecdotes'/ success stories
- make use of AIP/APS resources
- coordinate with other groups seeking demographic information

Summary

- **HEPfolk census in steady state...
gives reasonably accurate snapshot**
- **However trajectories of departing HEP personnel
are largely unknown**
- **We will request resources for deeper study
focusing on departures, and on long-term
maintenance of demographic data**