



**ANNUAL MEETING OF THE  
GRADUATE FACULTY**

*Emerging Trends in  
Graduate Education*

Patricia R. Komuniecki, Ph.D.  
Vice Provost for Graduate Affairs  
Dean, College of Graduate Studies

Thursday, January 30, 2014  
12:30 – 1:30 p.m.  
Student Union, Room 2592

*Light refreshments served*



**COLLEGE OF GRADUATE STUDIES**  
THE UNIVERSITY OF TOLEDO

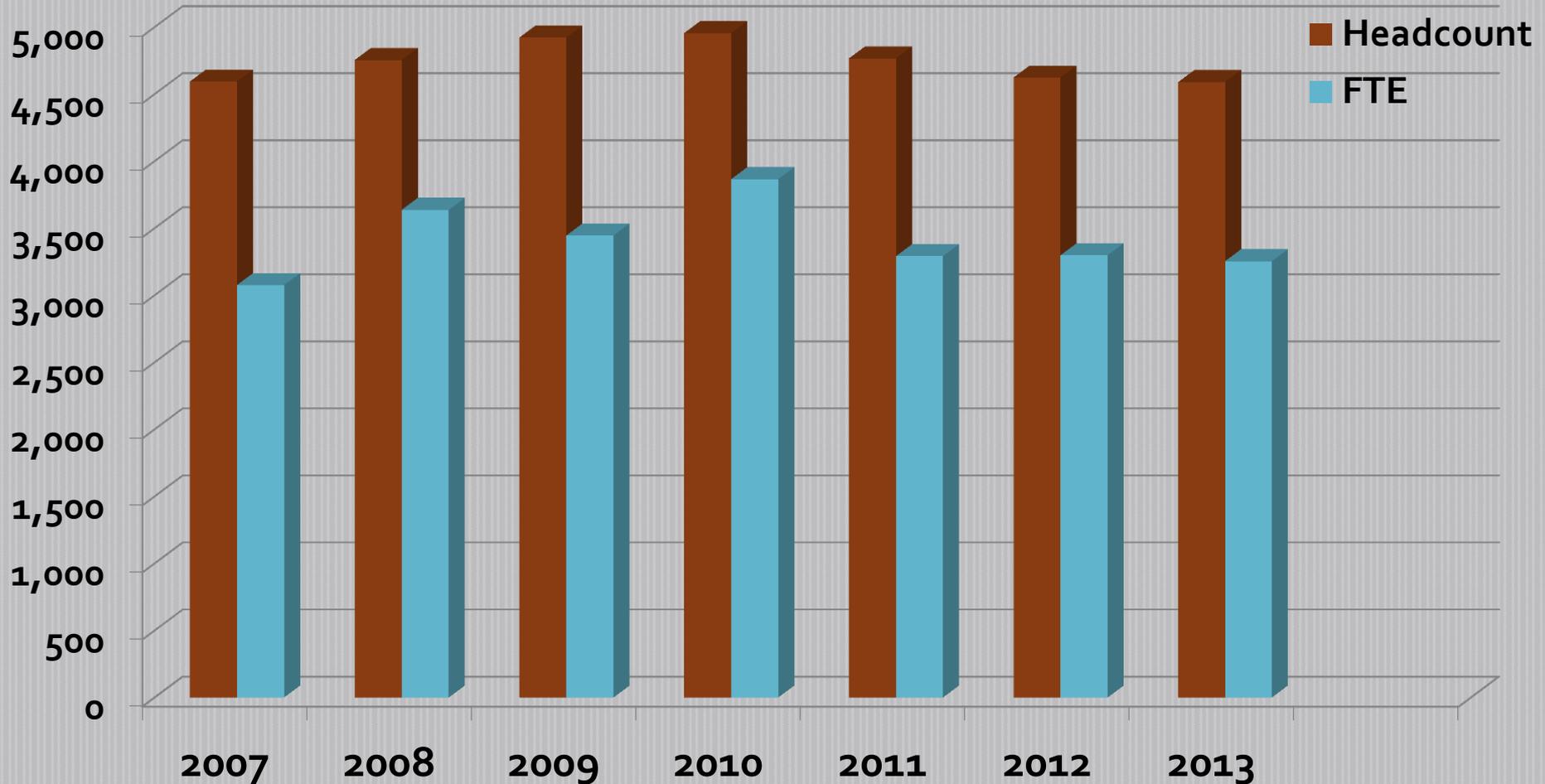


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1872

# Overview

- COGS Overview/Annual Report
- Goal 2: *Directions 2011 – Directions 2014*
- Emerging Trends in Graduate Education

# Graduate and Professional Students- Fall Enrollments 2007-13



# Graduate Student Demographics- Fall 2013

- **Enrollment:** 4,590 graduate students
- **Diversity:** 64% White, 27% Ethnic Minority, 9% unknown
- **Gender:** 55% female, 45% male
- **Load:** 56.6% full-time, 43.4% part-time
- **Residency:**
  - 72.8% in-state
  - 11.3% out-of-state
  - 15.9% international

# Graduate Student Facts-AY 2012-13

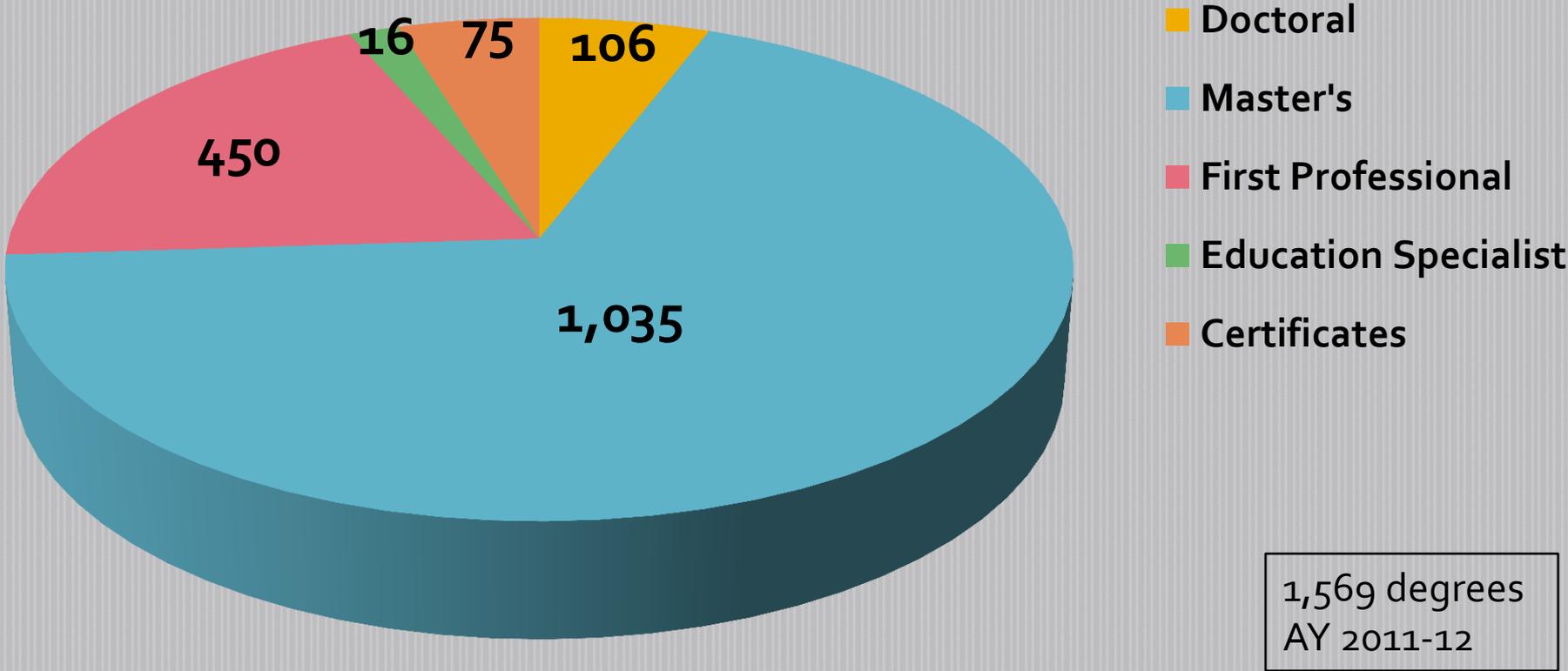
## AY 2012-13:

- Degrees Awarded: 1,682
- GSA Funding: \$154,000
- Professional Development Programs: 28

## Fall 2013:

- Headcount: 4,590
- FTE: 3,254
- Applications: 3,686
- Admits: 1,149
- GAPA's/ePAF's: 1,036

# Graduate Degrees Awarded 2012-13



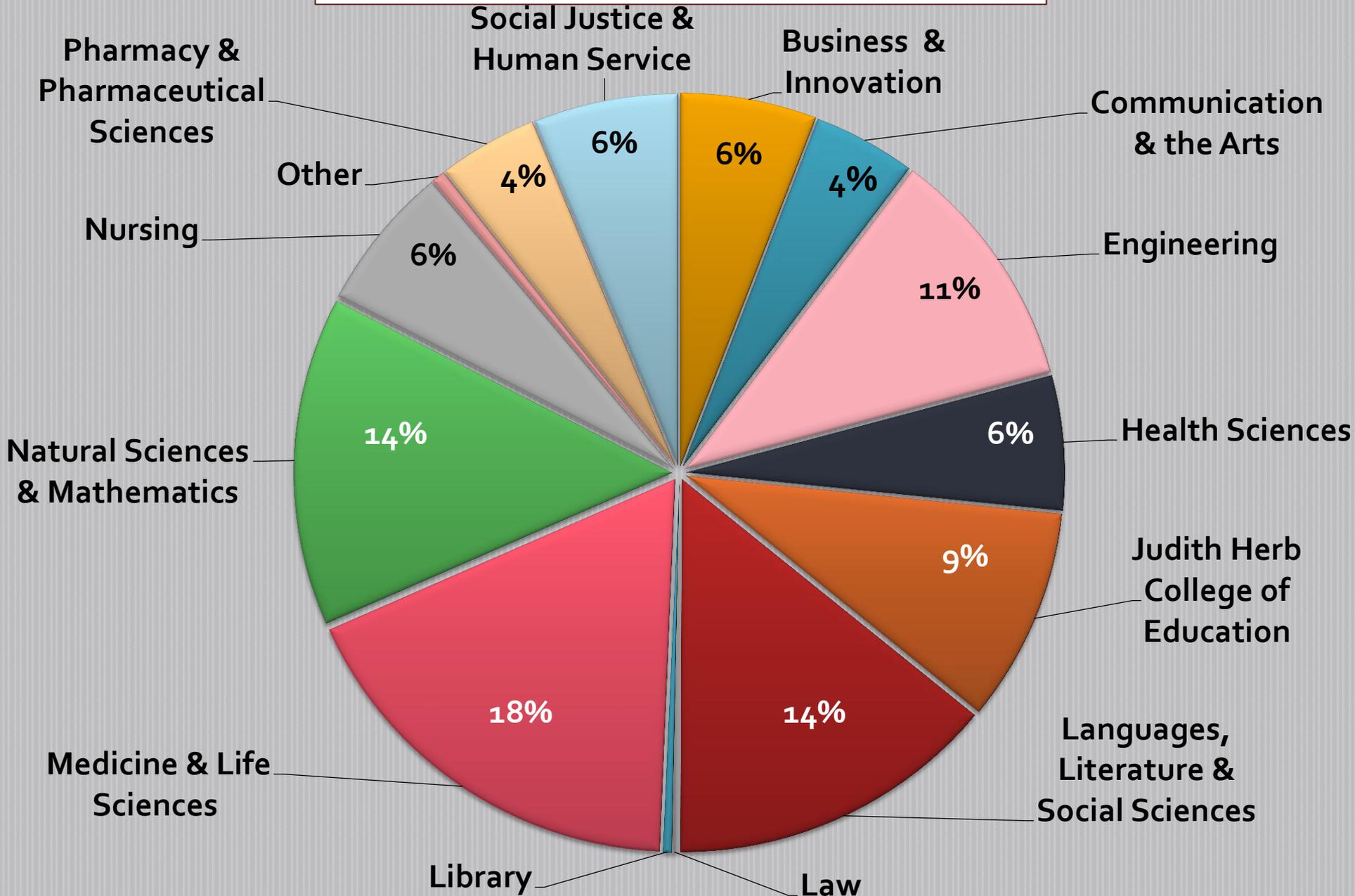
**Total=1,682**

# Graduate Faculty AY 2012-13

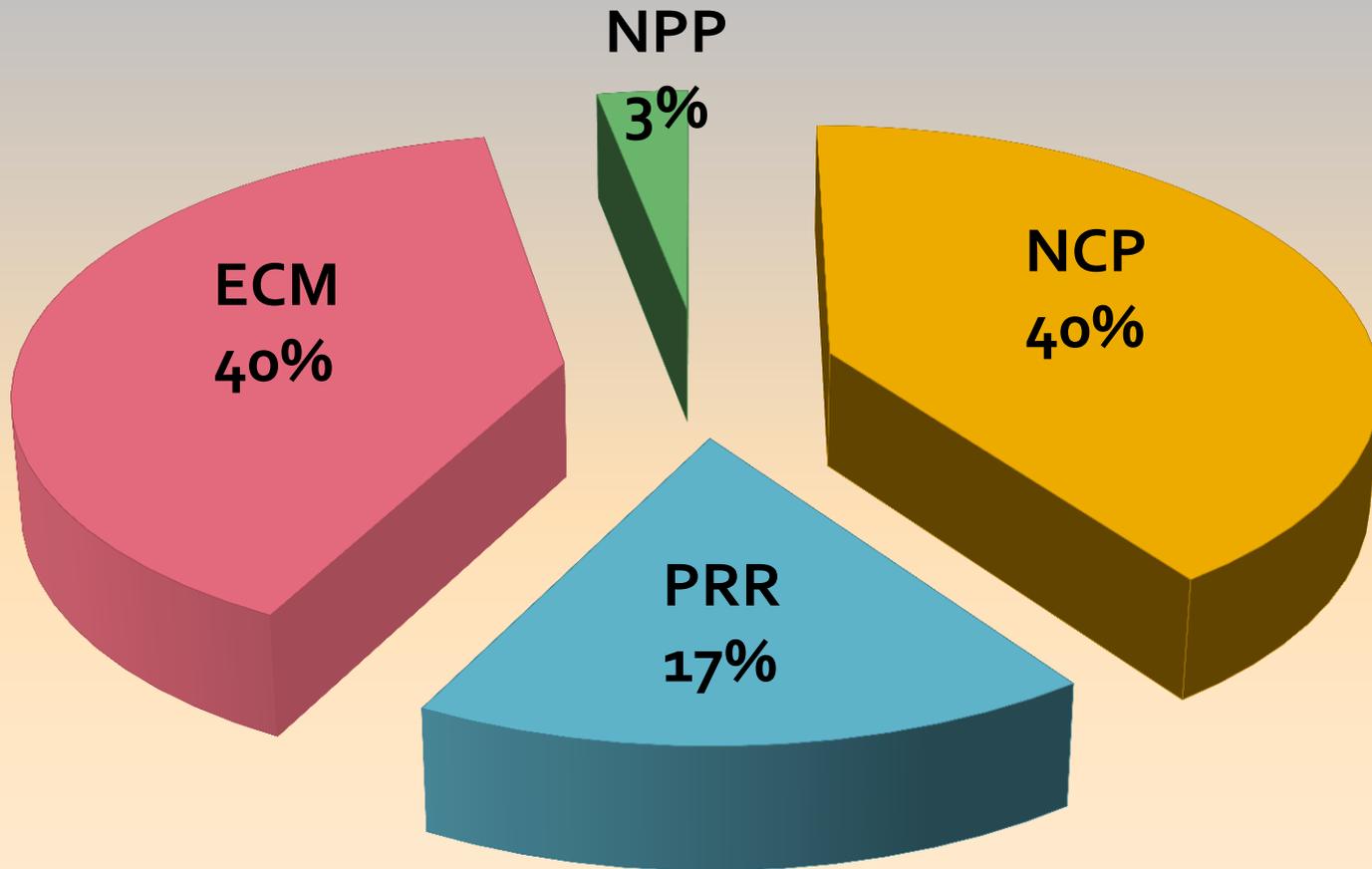
- Graduate Faculty Membership Applications: 330
- Graduate Council Curriculum Actions: 132
- National Surveys Submitted by COGS: NSF-NIH, CGS-GRE, ACT

# Graduate Faculty 2013-2014

N=841



# Graduate Council- Curricular Activities



**N=132**

# Strategic Planning





# Goal 2: Graduate and Professional Academic Programs

- Our graduate and professional academic programs will be **regionally relevant, nationally distinguished and highly ranked.**
- These programs at UT will be known for **high quality while maintaining accessibility, affordability and engagement.** STEMM (Science, Technology, Engineering, Mathematics, Medicine) and professional programs will have high visibility.

# Goal 2: Sub-goals

- 2.1 We will enhance the **quality and stature** of all of our programs.
  - 2.2 We will work to assure **affordability** of our graduate and professional programs.
  - 2.3 We will work to ensure **accessibility** to a diverse student population.
  - 2.4 We will establish a recognized role in **economic leadership** and stimulation of the regional economy.
- **28 Implementation Strategies**
  - **79 Measurements & Metrics**
  - **~95% completed!**

# Subgoal 2.1- Quality/Stature

- National Graduate Student Recognitions
- New Graduate Programs
- Second Cohort of Woodrow Wilson Fellows (JHCE)
- Fulbright Scholars (5 –Indonesia, Kenya, Russia and Iraq)
- New Professional Science Master's (PSM's)



# Graduate Student Recognitions

- **2013 National Optical Astronomy Observatory Recognition** - astrophysics doctoral student/international paper on starbirth (CNSM)
- **2013 National Ethics Competition** (American Counseling Association) won by 4 Counselor Ed Master's students (CSJHS)
- **2013 National Board of Certified Counselors Minority Fellowship** - \$22,000 to a doctoral student in Counselor Education (CSJHS)
- **2013 National Graduate Research Award**- \$10,000 from the FAA/US Dept Transportation to an SISS doctoral student (CLLSS)
- **2013 Outstanding Young Investigator Award** @ the 15<sup>th</sup> Annual International Congress of Immunology-recent doctoral student/current postdoctoral immunology fellow (COMLS)
- **2012-2014 NIH K31 pre-doctoral fellowships** (@ \$126,000) to doctoral students (COMLS and COPPS)



# Graduate Student Association (GSA)

## AY2012-13



- National Recognition by NAGPS
- New budget to support graduate student research awards, professional travel, student activities/speakers
- Midwest Graduate Research Symposium 2013-4<sup>th</sup> Annual MGRS hosted 200 students from 20 Midwest universities across 5 states





***Back row left to right:*** Noah Bleckner, Samuel Östling, Corbin Brangham, Robert Abramoff, Christopher Wojciechowski.

***Front row left to right:*** Dr. Patricia Komuniecki, Shelby McElroy, Alicia Schifferly, Mary Kreuz, Adam Thieroff, Rafael Soler.



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# New Graduate Programs

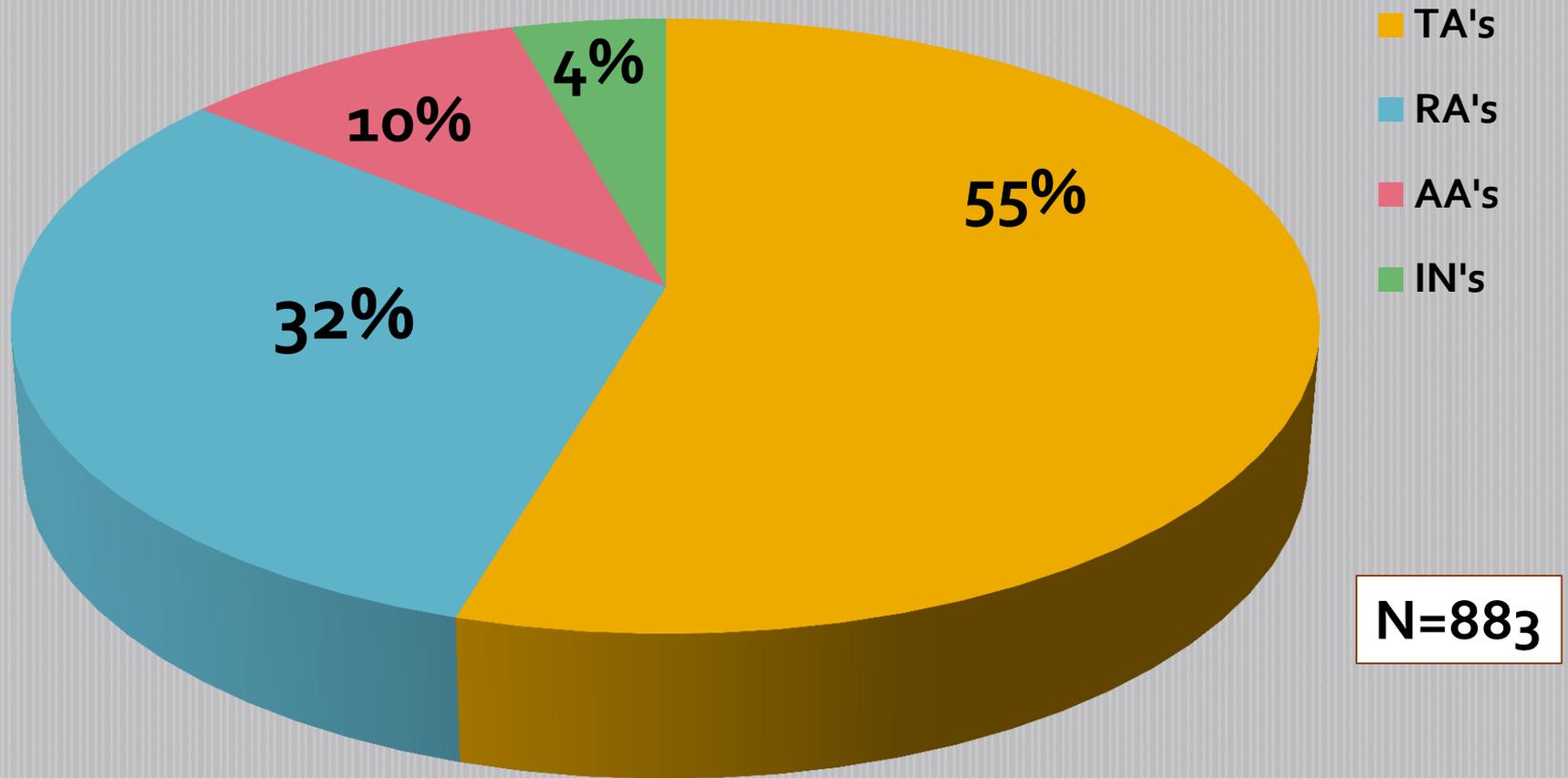
## Fall 2013/Fall 2014

- **UG-Grad Pipelines:**
  - BSN to DNP (Nursing)
  - BSPS to MS in Medicinal Chemistry (COPPS)
- **New Degrees:**
  - Ph.D. in Experimental Therapeutics (COPPS)
- **New Certificates:**
  - Child Advocacy (CSJHS)
  - Healthcare Business Excellence (for physicians and med students)/(COBI)
  - Women and Gender Studies (CLLSS)
  - Higher Education Administration (JHCOE)

# Subgoal 2.2- Affordability

- **FY15 Stipend and Tuition Scholarship Budget:**  
95% of the COGS FY14 Budget already released to the colleges (December 2013) for FY15
- Hope to keep graduate tuition flat for AY14-15
- ~25-35% of degree seeking graduate students receive graduate assistantships (TAs, RAs, AAs)
- ~4% have paid internships (IN) by local businesses

# Graduate Assistant Funding 2012-13



# COGS Exit Surveys-Fall 2012 and Spring 2013

(700 responses- 94% response rate)

Pre-degree employment	Fall 2012 (n=198)	Spring 2013 (n=498)
Graduate Assistantship	34%	27%
Full-time job	32%	26%
Part-time job	12%	25%
Worked occasionally	11%	9%
Did not work	11%	13%

# Subgoal 2.3- Accessibility

## Online Graduate Opportunities:

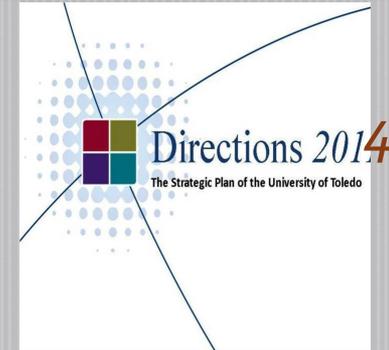
- Increased focus on online graduate courses, certificates, and degree programs
- Working with academic colleges and UT World Campus on new online graduate degree and certificate program opportunities

## Diversity initiatives:

- COGS provides ~\$400,000 in diversity funding annually through GOAP and McNair programs

# Directions 2014-Workgroup Actions

- COGS Dean to lead Goal 2 Workgroup
- Workgroup Leads to meet with President Jacobs on January 31, 2014
- **Goal 2 Workgroup Charge:**
  - Prepare new sub-goals
  - Consider the following suggested topics (and others):
    - Connection between Graduate Faculty & Research
    - Job markets and the UT reaction to them
    - Increase in Professional Degrees
- First Goal 2 Workgroup meeting- 1<sup>st</sup> week of February



# Directions 2014 Workgroup

- David Giovannucci, Graduate Council Chair (COMLS)
- Ron Opp, GC Vice Chair (CSJHS)
- Susan Pocotte, COGS Associate Dean/Academic Affairs (CON)
- Aaron Shaw, GSA President (COMLS)
- Joelynn Laux, GSA Vice President (COL/COBI)
- Barbara Kopp-Miller, Associate Provost/Online Programs (CSJHS)
- Jerry Van Hoy, Sociology/Director, MLS Program (LLSS)
- Glenn Lipscomb, Chemical Engineering (COE)
- Bill Maltese, Professor/Chair, Biochemistry & Cancer Biology (COMLS)
- Rebecca Schneider, Curriculum & Instruction (JHCOE)
- Michelle Masterson, Rehabilitation Sciences, DPT Director (CHS)
- Thea Sawicki, Vice Chancellor-Health Science Grad Programs (COMLS)

[Marcia McInerney, DUP, Medicinal Chemistry, Associate Dean (COPPS)-

link with Research Council and Goal 3]\*most of the above have already agreed to serve

# Emerging Trends in Graduate Education

- Career Pathway Focus
  - UG to Graduate Pipeline Programs
  - Professional Science Master's (PSM's)
  - Interprofessional Options
  - Online Programs
  - Job Opportunities
  - Global Opportunities
- 
- Financial Issues will be discussed at the next Graduate Council meeting on Feb 4

# Career Pathway Focus

Pathways Through  
Graduate School and Into Careers

“Universities play a critical role in helping students find pathways through graduate school and into careers”



April 2012

[www.pathwaysreport.org](http://www.pathwaysreport.org)

# COGS Exit Surveys-Fall 2012 and Spring 2013

(700 responses- 94% response rate)

Statement	Response (Strongly agree/ Agree)	Response (Strongly agree/ Agree)
	Fall 2012	Spring 2013
<b>Academic program prepared student for professional career goals</b>	<b>90%</b>	<b>91%</b>
Quality of graduate education was high	89%	91%
Program was intellectually challenging	92%	95%
Student was satisfied with COGS office: accessibility, responsiveness, efficiency, effectiveness (several questions)*	87-94%	85-91%

\*~6% no response/not applicable

# COGS Exit Surveys-Fall 2012 and Spring 2013

(700 responses- 94% response rate)

Post-degree employment	Fall 2012	Spring 2013
<b>Begin new position with new employer</b>	<b>30%</b>	<b>32%</b>
Continue in same position with same employer	24%	16%
Continue with same employer in a <b>new</b> position	11%	10%
Seek new employment	24%	31%
Continue graduate education	7%	9%
<b>Will remain in Ohio</b>	<b>56%</b>	<b>62%</b>

# UG-Graduate Program Pipeline

## Professional Degrees:

- BSN to DNP (CON)
- Baccalaureate degree (typically STEM) to MSBS in Medical Sciences to Medical School (students apply to COMLS for MSBS and then are interviewed for MD)

## Research Degrees:

- BSPS to MS in Medicinal Chemistry (COPPS)
- BS in Biology (CNSM) to MS in Bioinformatics (COMLS)
- BA to MA in Social Sciences (CLLSS)



**Consider new options in other disciplines**

# PSM Milestone-2013

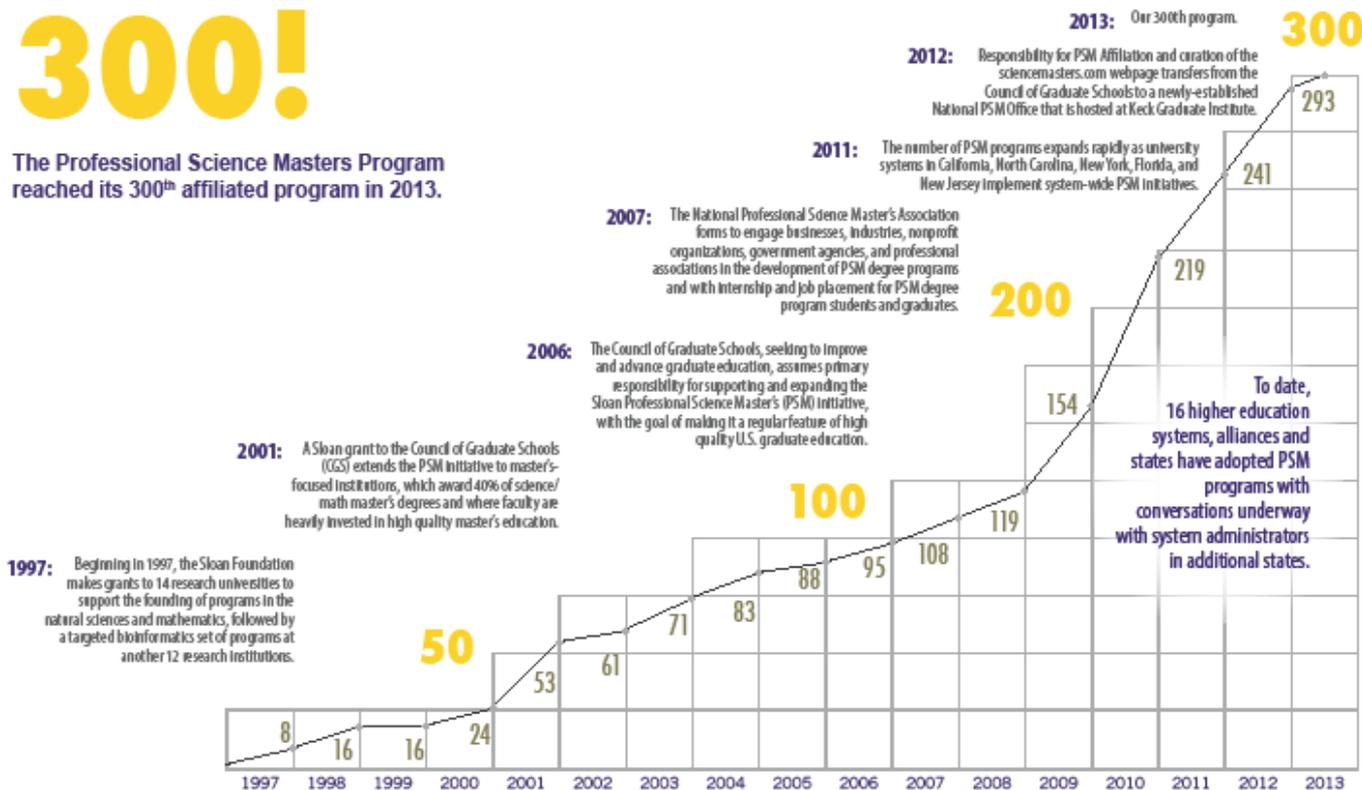
# 300!

The Professional Science Masters Program reached its 300<sup>th</sup> affiliated program in 2013.



in collaboration with naturejobs

- 300 programs
- 127 universities
- 16 systems
- 6000 enrolled



*"PSM graduates understand the contribution of STEM knowledge to real issues. They will become the leaders in innovation that will spur the next generation of economic development."*

Dr. James Moran,  
Vice Chancellor  
Pennsylvania State System  
of Higher Education (PASSHE)

The PSM degree is designed to train the next generation of STEM professionals for integrator and leadership roles in science-intensive industries. By helping translate research into commercialization, PSM graduates are able to fuel innovation and economic growth.



# Professional Science Master's (PSM's)

- **UT PSM's: Photovoltaics (PV)  
Biomarkers & Diagnostics**  
[1<sup>st</sup> PSM's at an Ohio public university]
- **Fall 2013:** 4<sup>th</sup> PV cohort recruited
- **Fall 2014:** 1<sup>st</sup> cohorts for PSM's in  
**Green Chemistry & Engineering**  
**Human Donation Science**
- PSM's in development: applied statistics, biotechnology, environmental sustainability, geospatial systems, cyber security



# Interprofessional Options

## ■ School of Interprofessional Training

- Interprofessional Education (IPE) in the professional healthcare doctorates-Teams of students from Nursing, Medicine, Health Sciences, Pharmacy
- Course/clinic work side-by-side for students from the following programs: DPT, OTD, DNP, MD, and PharmD
- Can involve students in professional master's programs including SPL, MSW and PA programs

## ■ School of Interprofessional Teaming (SOIT)

- New SOIT certificate program ready for GC review-involves students/faculty from three colleges (JHCOE, CSJHS and CHS)



**Consider new options in other disciplines**



# Online Graduate Programs



## Current:

- Doctoral degree: Doctor of Nursing Practice (BSN and MSN pathways to DNP)
- Master's degree programs: Engineering, Nurse Educator, Early Childhood /Special Education, Early Childhood Education, Liberal Studies, MBA...
- Certificates: Elder Law, Patient Advocacy, Gerontological Practice, and Child Advocacy

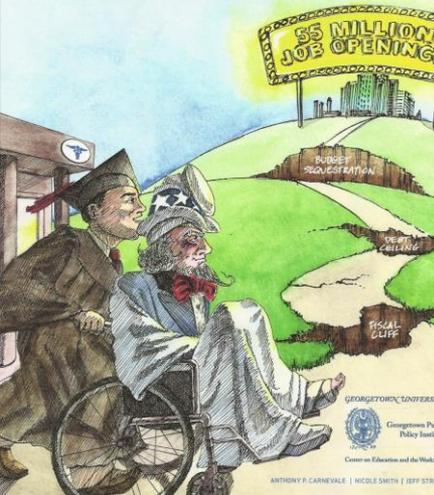
## New:

- **Fall 2013:** Master's in Educational Technology  
Certificate in Foundations of Peace Education
- **Spring 2014:** Master's in Criminal Justice  
Master's in Higher Education
- **Fall 2014:** Master's in Recreation and Leisure Studies

# Online Graduate Programs

## Programs in development:

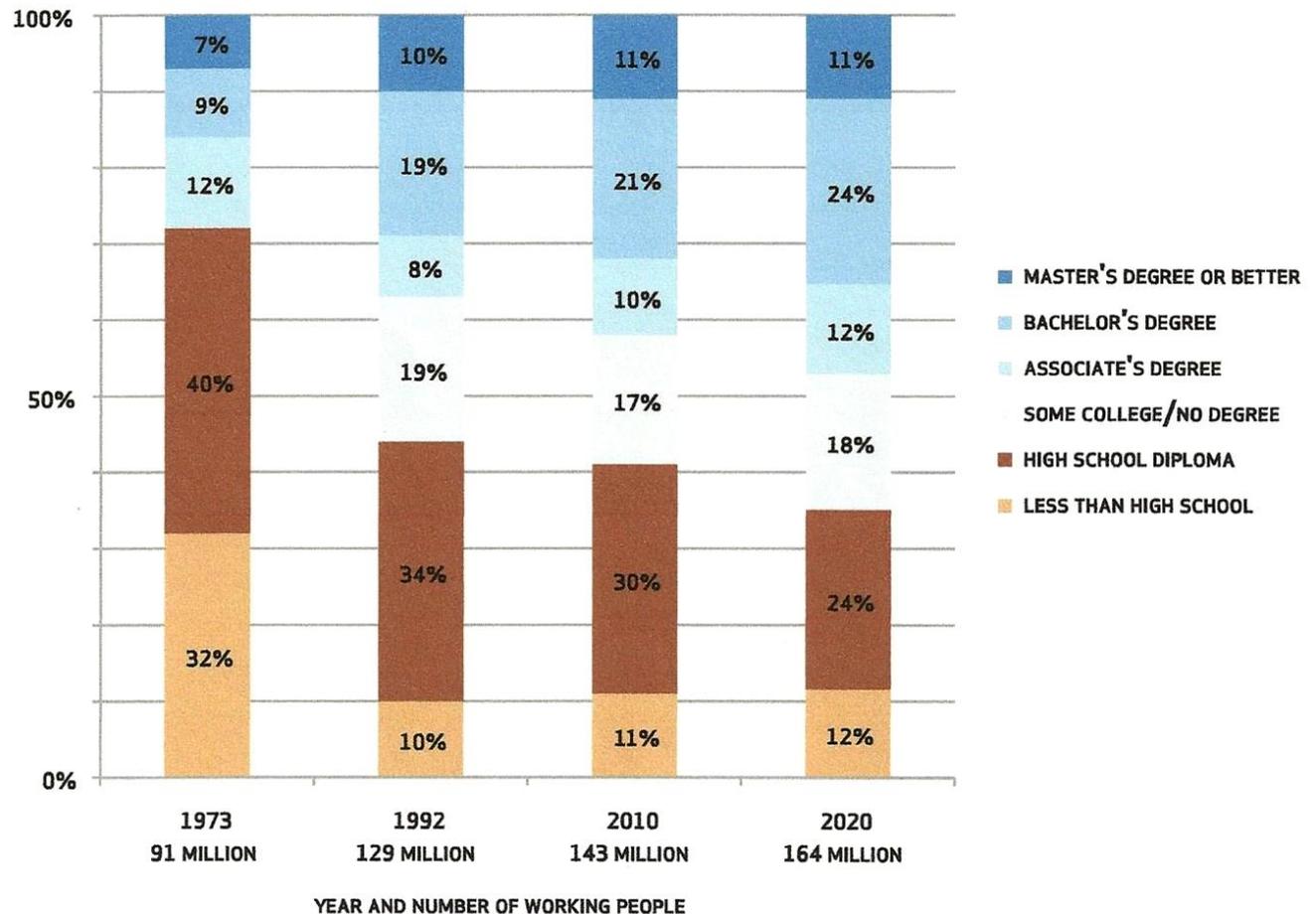
- MS in Bioinformatics (COMLS)
- MES in Biology- targeted for high school science teachers “Appalachia Collaborative” (JHCOE/CNSM) funded by “Battelle for Kids”
- RESM/Educational Assessment Certificate (JHCOE)
- Others??



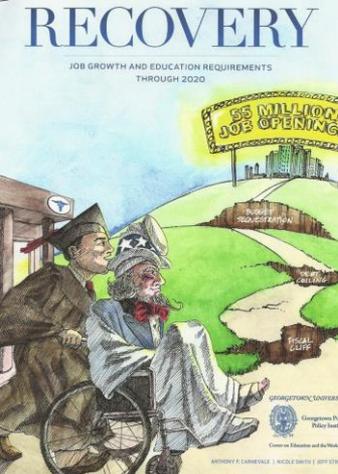
# Job Opportunities

By 2020, 65 percent of all jobs will require postsecondary education and training, up from 28 percent in 1973.

FIGURE 4: Postsecondary education and training



Note: Numbers may not sum to 100 percent due to rounding.

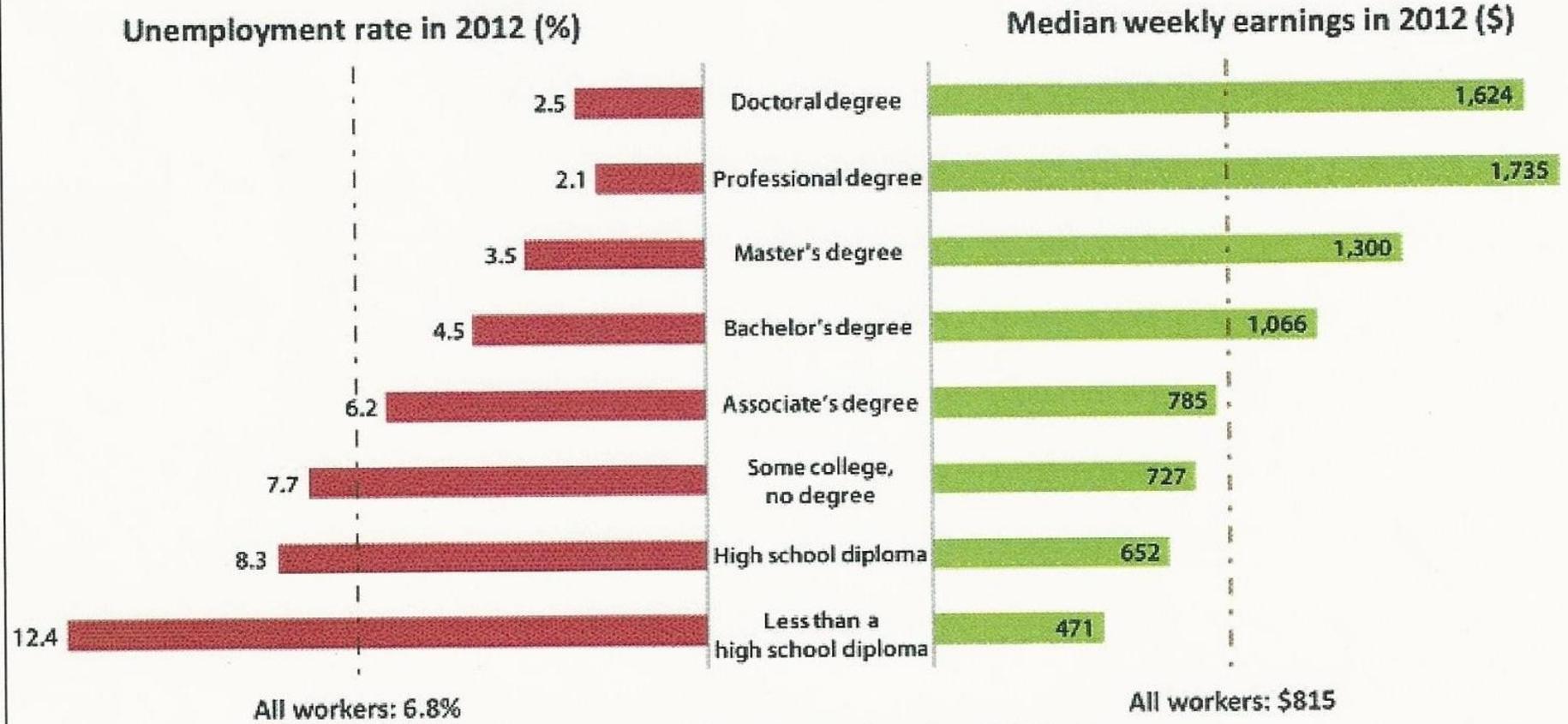


# 2020 Projected Workforce Needs

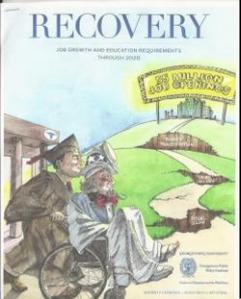
- Georgetown University Center on Education the Workforce (July 2013) projects a **Shortage of Educated Workers by 2020**
  - 5M shortfall for 55M projected jobs (24M new and 31M 'baby boomer' replacements)
- By 2020, BLS estimates that the number of jobs requiring advanced degrees will increase by 2.6 million
  - 22% increase in jobs requiring Master's
  - 20% increase in jobs requiring Doctorates

## Employment Projections

### Earnings and unemployment rates by educational attainment



Source: Bureau of Labor Statistics, Current Population Survey



# Job Opportunities-Ohio

Occupations	#Jobs 2010	#Jobs 2020	Growth Rate
Healthcare-Support	181,950	247,600	36%
Healthcare-Professional/Technical	287,500	340,250	22%
Social Sciences	20,060	24,400	22%
STEM	210,460	248,850	18%
Managerial/Professional	645,100	755,200	17%
Community Service/The Arts	209,870	245,060	17%
Food/Personal Services	843,490	972,870	15%
Education	289,130	327,360	13%
Sales/Office Support	1,389,700	1,533,290	10%
Blue Collar	1,183,770	1,271,890	7%
<b>TOTAL</b>	<b>5,252,160</b>	<b>5,967,040</b>	<b>14%</b>

# Global Opportunities

- Well-established programs with partners in Asia and Africa
  - MBA in India at PSG/Coimbatore (8 cohorts/500 students)
  - MS in Mechanical Engineering at PSG/Coimbatore (2 cohorts)
  - MBA in Egypt- partnership with the American Chamber of Commerce in Cairo (2 cohorts)
- Developing new relationships with universities in Africa (Sierra Leone and Botswana), South America (Brazil-USP...) and the Middle East
- Consider other opportunities (use of *One World Schoolhouse* to reach students across the globe?)



# Final Thoughts

- **Graduate degrees are necessary for 21<sup>st</sup> century careers-** baccalaureate degrees do not distinguish a student anymore
- UT is 1/17 public universities with breadth of degree programs
- **~60% of UT graduate/professional students take jobs in Ohio**
- UT should recruit undergraduate students with clear expectations for 21<sup>st</sup> century careers that will require graduate degrees. **UT can and should distinguish itself with an emphasis on graduate and professional education, including expansion into emerging areas.**

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Questions?

**GRADUATE STUDIES**

PATHWAYS TO NEW CAREERS

