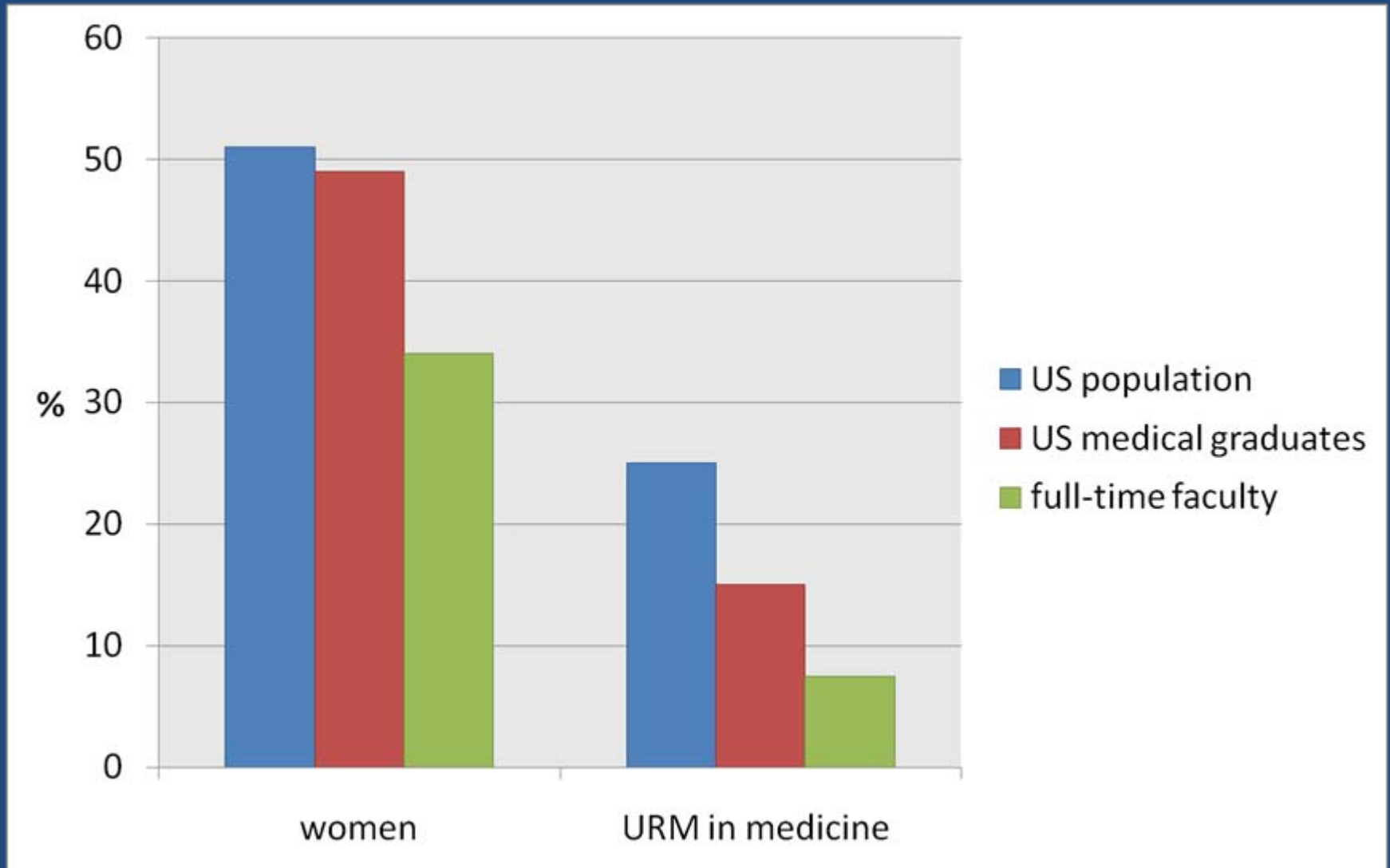


**Predictors of Full-time Faculty Appointment among
Contemporary U.S. Allopathic Medical Graduates:
Implications for Academic Medicine Diversity**

**Dorothy A Andriole, Donna B Jeffe, Heather L
Hageman, Kimberly S Ephgrave, Monica L Lypson,
Brian E Mavis, Leon McDougle and Nicole K Roberts**

Background: academic medicine workforce does not reflect diversity of population at large



The real background

- Session on national RIME priorities at 2007 CGEA spring meeting (Indianapolis)
- 7 “brainstorming” break-out groups
- “Career choices” group N = 3
- Leon McDougle + Kim Ephgrave = “brains” in “career choice brainstorming group” in context of faculty diversity
- CGEA grant = the means to the end

Purpose of our study

- Identify predictors of full-time faculty appointment from among demographic characteristics, medical-school variables and career intentions of recent U.S. allopathic medical graduates

Methods: data base development

- Data base (de-identified for analysis): 6 mid-west medical schools' graduates in 1997 - 2002
- IRB exemption/approval at all schools
- AAMC : individualized, linked Matriculating Student Questionnaire (MSQ) and Graduation Questionnaire (GQ) responses for graduates who completed both questionnaires with identifiers
- AAMC: FAMOUS faculty roster data
- AMA: Physician Master file records for all schools' 1997 – 2002 graduates

Methods: Variables

- Demographic (GQ) : graduation year, gender, race/ethnicity, amount of total educational debt
- Research-related: planned career involvement in research at matriculation (MSQ) ; enrollment at school with biomedical-research focus; MD/PhD degree program graduation
- Academic: 1st attempt, 3-digit UMSLE Step I score
- Career intention (GQ): Specialty choice, career setting preference
- Faculty appointment in AY 07 – 08 (FAMOUS)

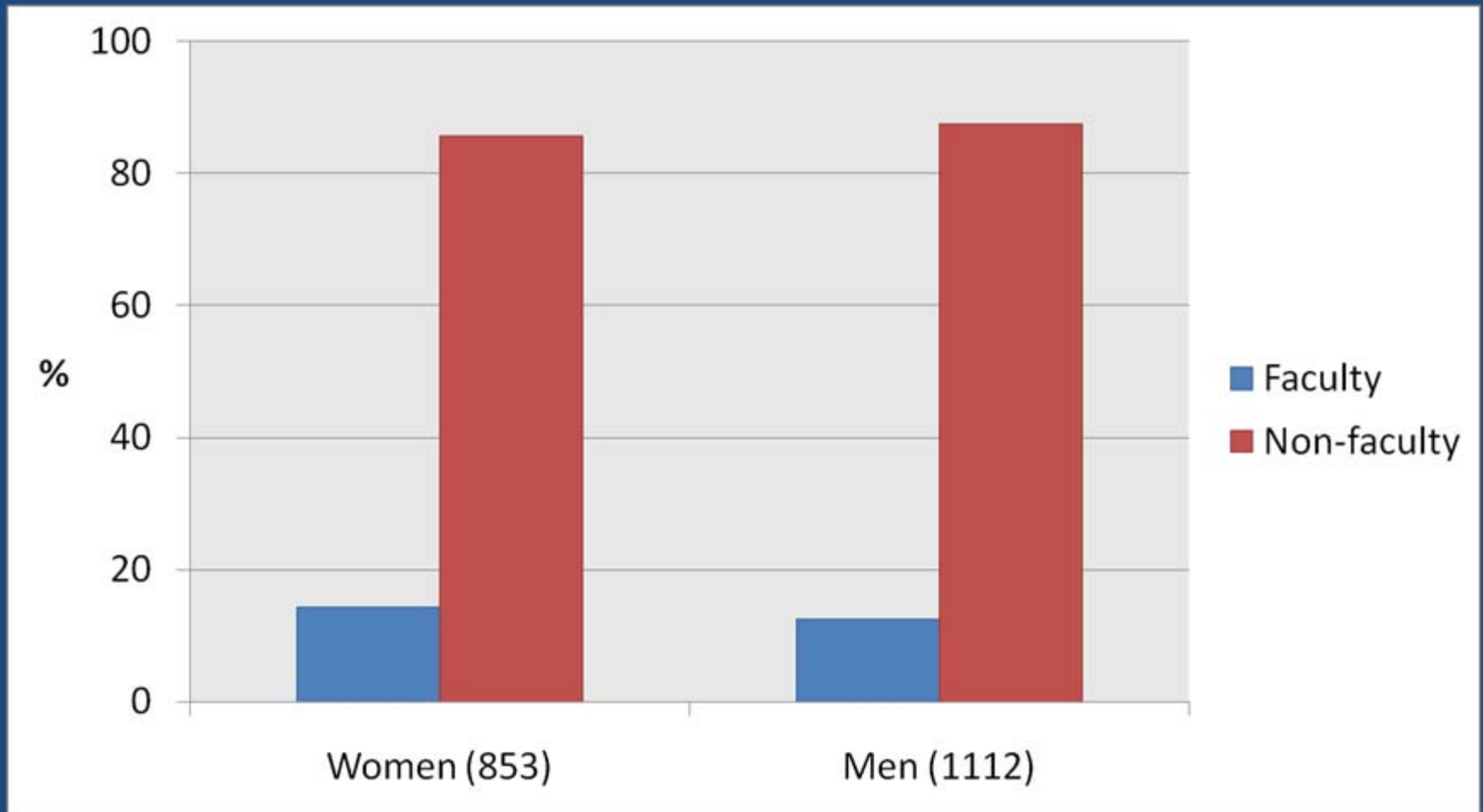
Data Analysis

- Descriptive statistics: Chi-square tests, one-way ANOVA tested associations between faculty appointment and each variable of interest
- Multivariable logistic regression identified predictors of faculty appointment from among all variables of interest
- All 2-sided p-values

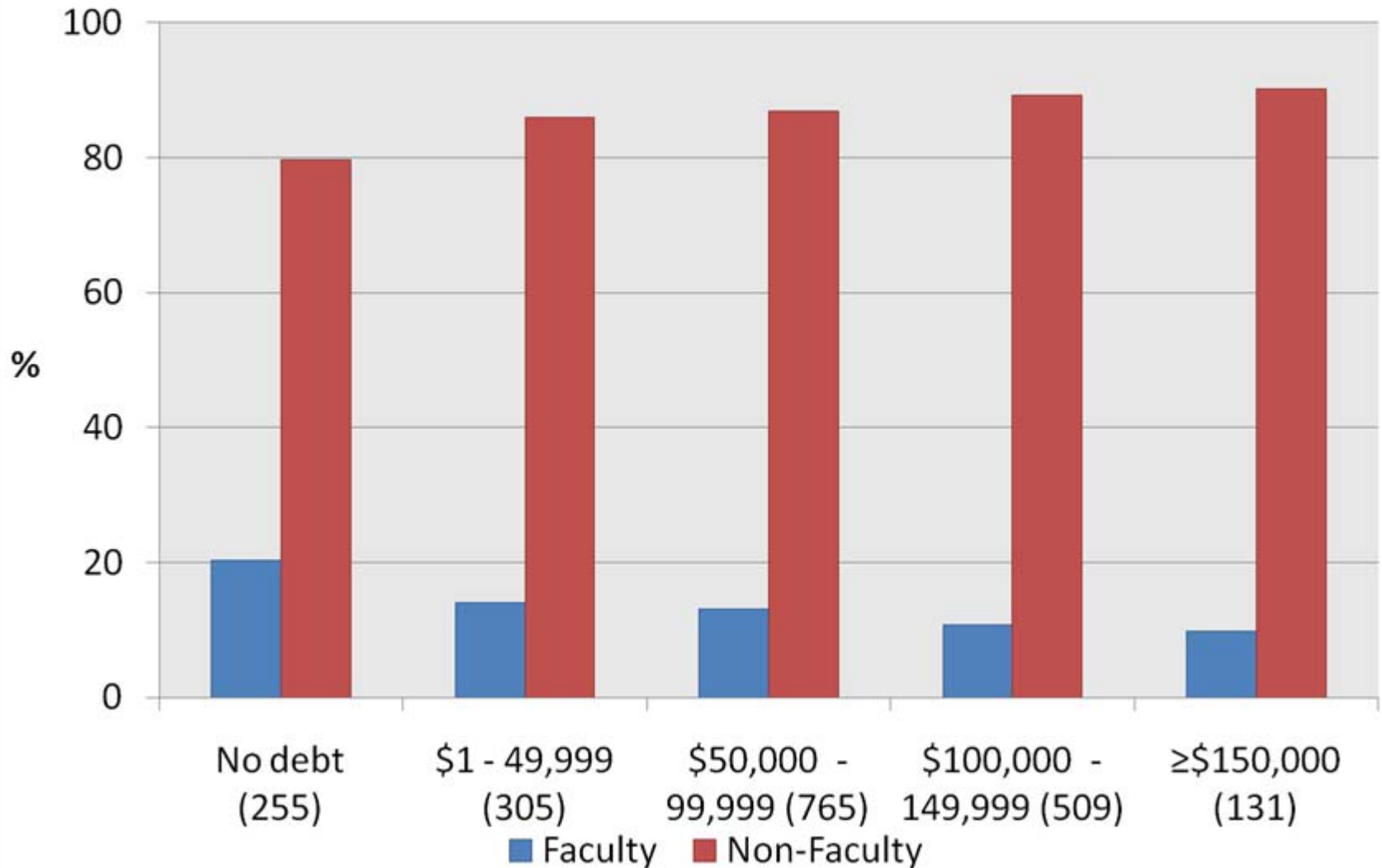
Results

- Database : 2480 graduates with linked AAMC MSQ, GQ, AMA records (53% of all schools' 1997 -2002 graduates)
- Excluded from study: 408 graduates still in GME in 2007 *as per* Master file; 107 graduates with missing data
- 13.4% (263/1965 eligible graduates) : faculty positions (67 instructor, 184 assistant professor , 12 other)
- Proportion of graduates in each class with faculty appointments : 9.7- 18.5%, no significant change over time ($p = .905$)

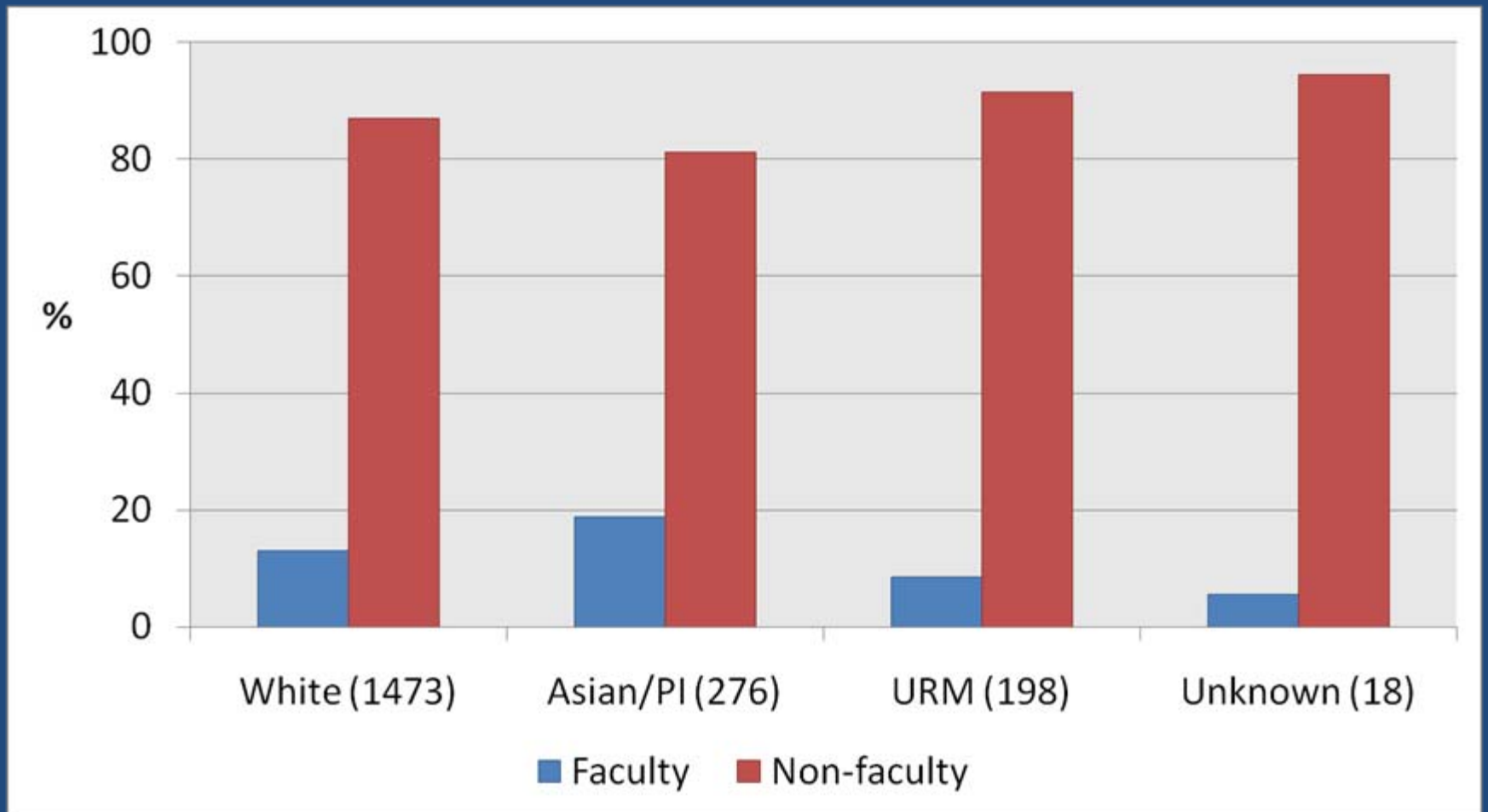
Faculty appt. vs. gender (p = .238)



Faculty appt vs. educational debt (p = .004)



Faculty appt. vs. race/ethnicity (p = .007)



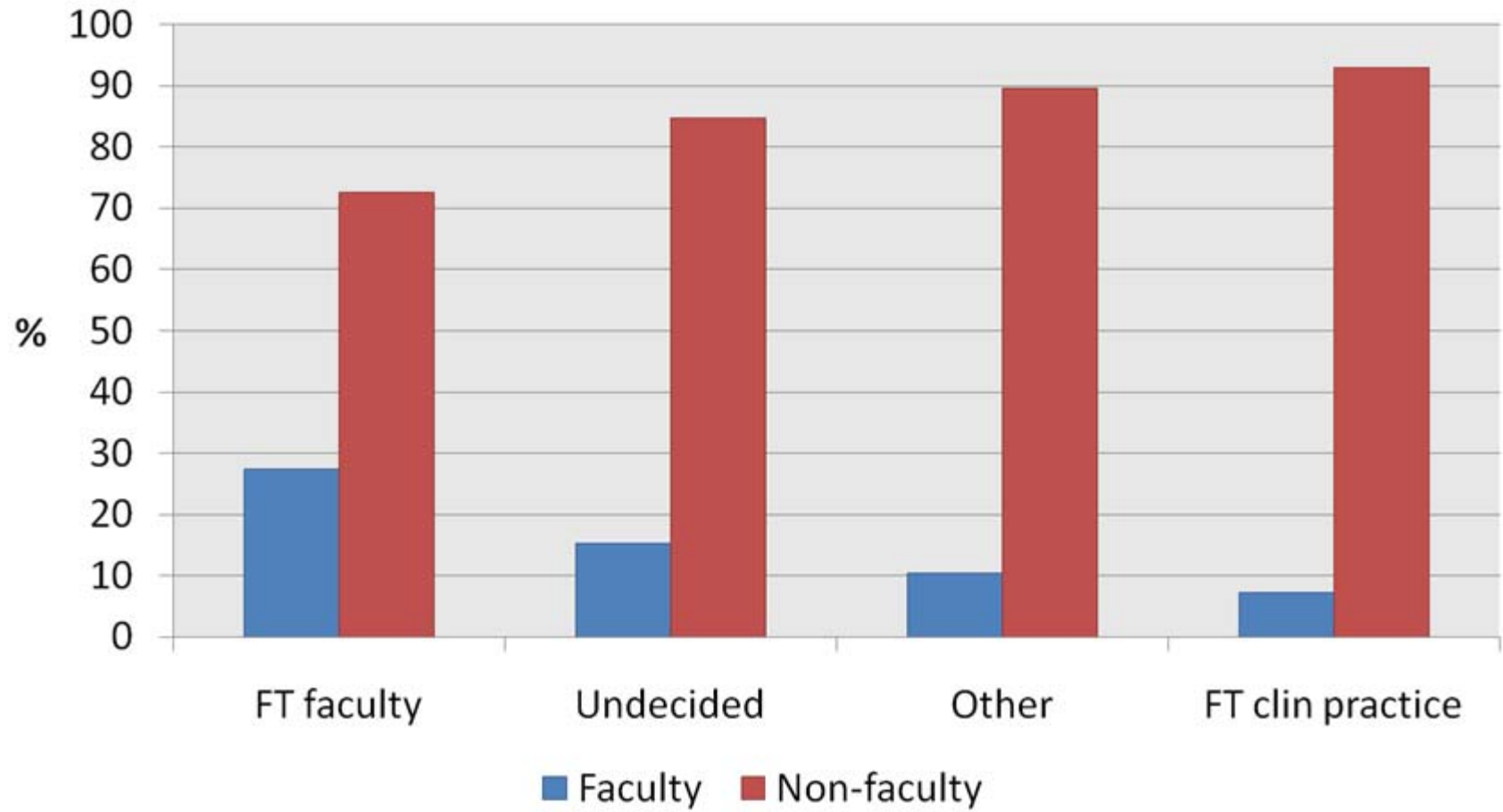
Faculty appt. vs. medical school ($p = .002$)



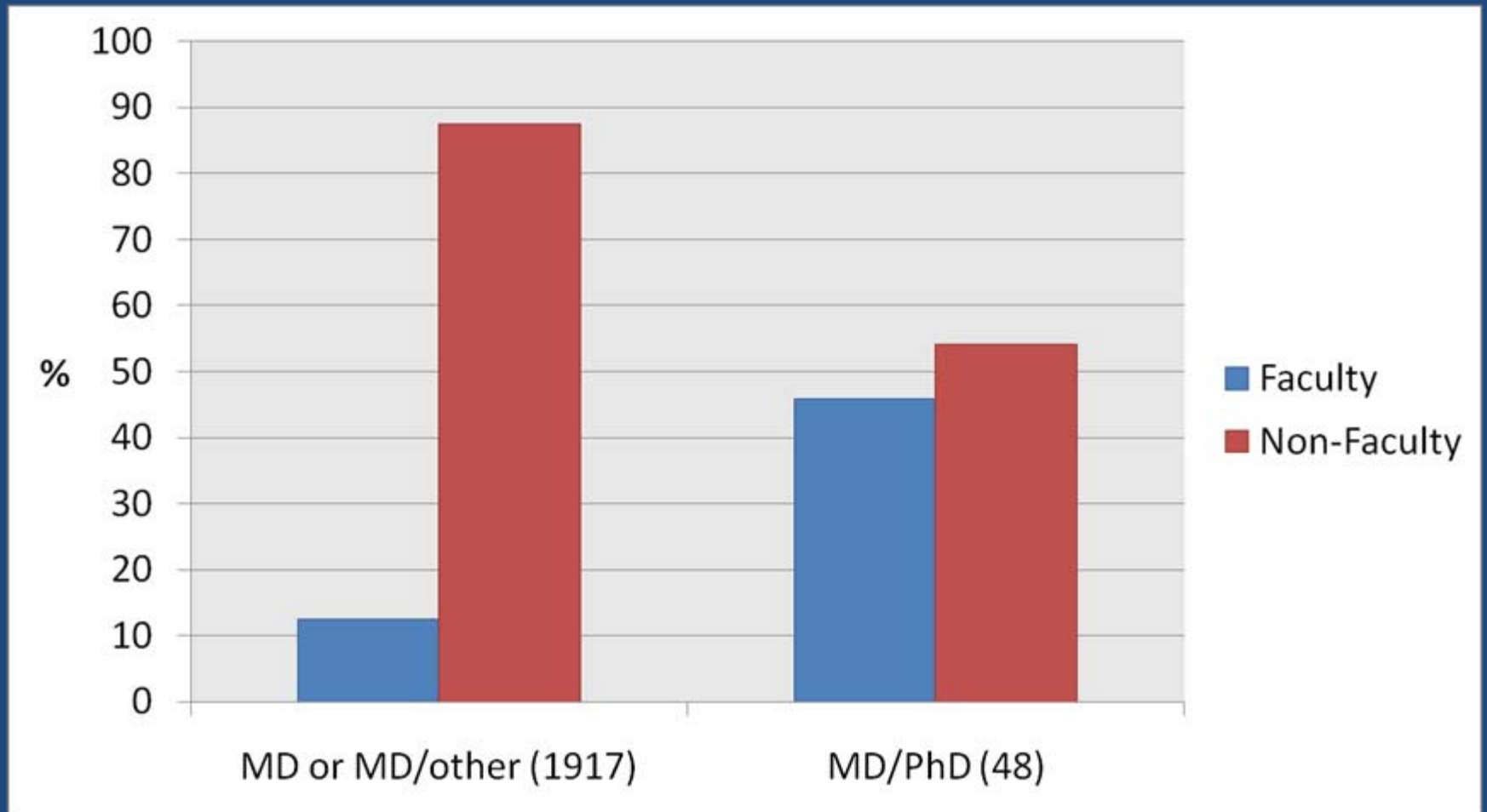
Results: continuous variables

Variable	Mean (SD) full-time faculty	Mean (SD) not full-time faculty	P-value
USMLE Step 1 score (1 st attempt, 3-digit score)	223.5 (17.8)	216.7 (19.4)	< .001
Level of planned career involvement in research at matriculation : 5-point scale: 0 = “not involved” to 4 = “exclusively involved”	2.7 (0.8)	2.4 (0.8)	<.001

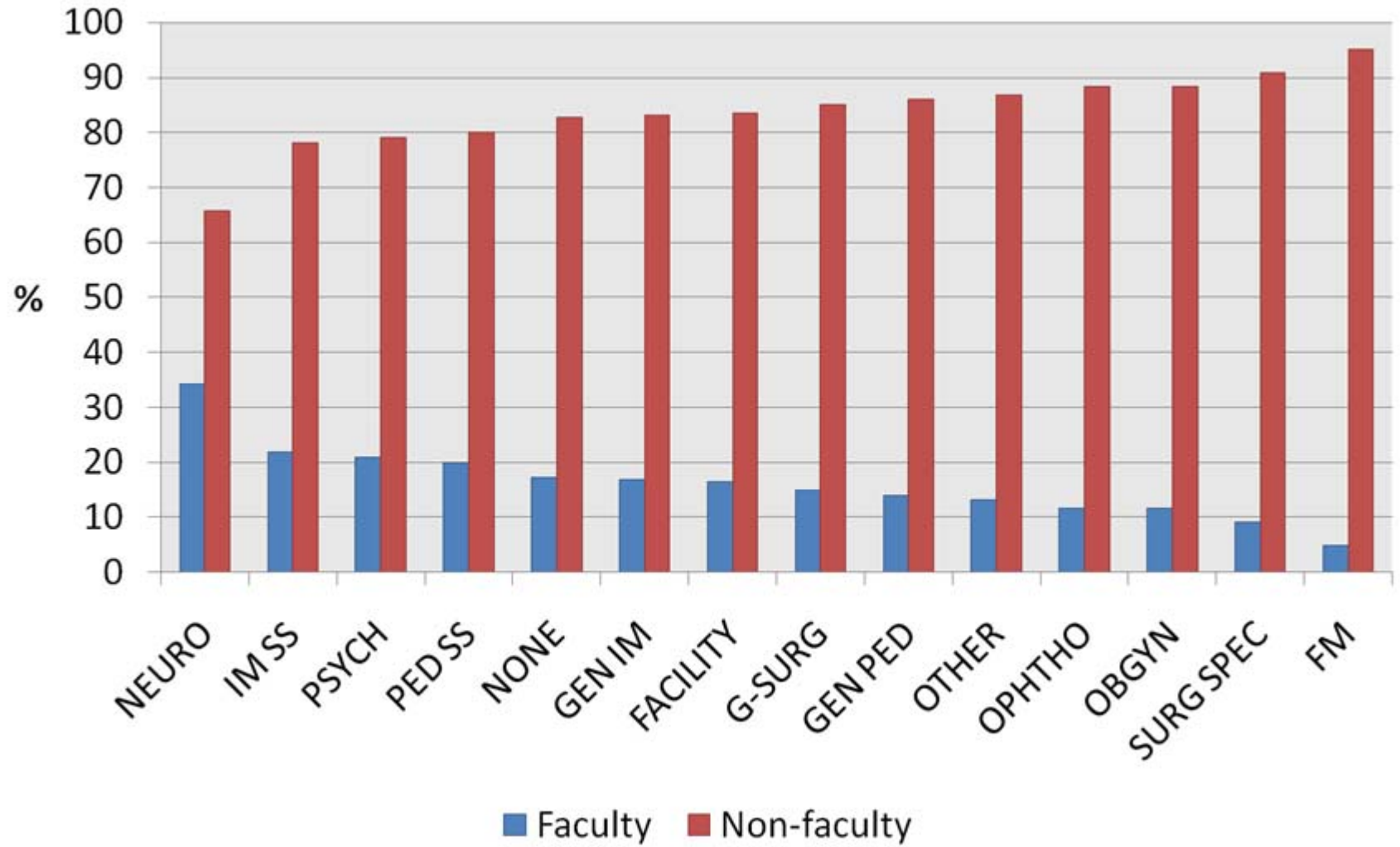
Faculty appt. vs. career intention at graduation ($p < .001$)



Faculty appt. vs. degree status at graduation ($p < .001$)



Faculty appt vs. specialty choice (p < .001)



Faculty appointment predictors

Variable	OR (95% CI)	2-sided p-value
USMLE Step I score	1.012 (1.004 – 1.020)	.004
Gender		
Men	1.000 (Reference)	.035
Women	1.386 (1.023 – 1.878)	
Degree program at graduation		
MD or MD/other degree	1.000 (Reference)	.017
MD/PhD	2.333 (1.161 – 4.688)	
Specialty choice at graduation		
General Internal medicine	1.000 (Reference)	
Family medicine	0.433 (0.231 – 0.813)	.009
Surgical specialties	0.497 (0.249 – 0.994)	.048
GQ career preference		
Full-time clinical practice	1.000 (Reference)	
Full-time university faculty	3.163 (2.231 – 4.485)	< .001
Undecided	1.969 (1.297 – 2.989)	.001

Study Limitations

- Inclusion of graduates from Midwest only
- Self-selected group of graduates who completed MSQ and GQ with identifiers
- Predominantly “entry-level” faculty ranks: due to length of follow-up, could not explore relationships of race/ethnicity or gender with faculty promotion and attrition

Conclusions

- Evidence of progress on basis of gender, but not race and ethnicity, among US graduates' participation in academic medicine careers
- Strategies?: Increase URM student participation in MD/PhD programs; interventions during medical school to promote URM student interest in academic medicine
- Include academic performance data and specialty choice in future academic-workforce diversity studies

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