

Associate Professors and Gendered Barriers to Advancement¹

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Introduction

During the 2008-2009 year, the Joint Administration-Massachusetts Society of Professors (MSP) Work-Life Committee carried out a study focused on work-life issues for faculty at the University of Massachusetts, Amherst, as well as time spent on work and unpaid care. The study included a survey of all faculty not serving in administrative roles, and focus groups with associate professors, assistant professors, and lecturers. In this report, we provide a summary of our central findings regarding associate professors, particularly in terms of the gendered barriers to advancement among this group.

Our key findings regarding associate professors include these:

- By cohort, women are less likely to be promoted than men and take longer to achieve promotions. Serving as Undergraduate Program Director appears to have a significant effect on lengthening women's (but not men's) time to promotion.
- Associate men spend approximately 7.5 hours more a week on their research, while Associate women spend approximately 8 hours more a week on teaching, advising, and particularly service. These findings are also true for STEM Associate faculty.
- While many Associate men and women have children, women are much more likely to serve as their children's primary caregiver, and spend significantly more time each week on housework and carework. As a result, Associate women's combined paid work, housework, and carework totals 102 hours/week, compared to 90 hours/week for Associate men.
- Associate men perceive greater support for their professional goals and for work-life balance from the university.

Literature

Multiple studies have examined differences in the experiences of men and women professors in academia. While the number of women professors has increased dramatically over the years (Schuster & Finkelstein, 2006), issues of disparity between men and women are still pronounced. While academic women are more likely today to earn tenure than women twenty years ago, numerous studies show that, on average, women spend longer at the rank of associate professor than men do despite women demonstrating equivalent levels of productivity and social capital (Mason and Goulden 2004; Gatta and Roos 2004; West 2006; Schuster and Finkelstein 2006; Roos and Gatta 2008).

Far fewer women than men are full professors. Data from the American Faculty Compensation Survey revealed that in 2005-2006 women held 24% of Full Professor positions, while men held 76% of them (West, 2006, p. 10). Although there has been an increase in the percentage of women faculty who attain full professorship since 1975, corresponding increases in the percentage of men faculty who also do so mean that the women's share of full professorships has only slightly increased (Schuster and Finkelstein 2006, p. 183). Indeed, Hargens and Long's work (2002) shows that retirement rates, changes

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in the gender distribution of PhD graduates, the demographic make-up of academic fields and the growth rate of the professorate can create slow progress toward equal representation of men and women in the rank of full professor.

In 2009, The Modern Language Association's (MLA) Committee on the Status of Women in the Profession completed a survey with a sample of MLA members, showing women professors are not promoted to full professor at the same rate as men. Additionally, the committee found that women professors are now being promoted more slowly than they were in the 1990s. In the 1990s women's promotion occurred after an average of 7.4 years, compared to an average of 8.8 years in the 2000s (MLA, 2009, p. 8). This study also noted that women associates have significantly greater care responsibilities at home than men associates. Geisler, Kaminski & Berkley (2007) reviewed time to promotion at one institution in 2001, and found that 48% of women had not yet been promoted to full professor thirteen years after obtaining their PhD compared to only 21% of men (p. 156). A review of UC Berkeley Faculty Personnel Records from 1980-2003, completed by the Committee on Maximizing the Potential of Women in Academic Science and Engineering and the Committee on Science, Engineering and Public Policy (2007), showed that women professors took longer to advance to the level of full professor in biology and social sciences than men did.

Differences in promotion rates for women professors do not seem to be explained by lower levels of productivity. Long, Allison and McGinnis (1993) analyzed the current rank of professors of biochemistry, controlling for multiple variables reflecting the productivity of biochemists and characteristics of their career (e.g. prestige of their department). While productivity and career trajectory explains some of the differences, it does not explain all of the gendered differences that emerge. Women whose publication records were similar to men's were less likely to be promoted, though exceptionally productive women were promoted. Additionally, women's likelihood of being promoted to full professor was negatively affected by being in a department with greater prestige, while men's likelihood of promotion was not negatively affected by the prestige of their department (Long, Allison & McGinnis, 1993). Similarly, Perna's (2001, 2005) analyses of the National Survey of Postsecondary Faculty data from 1993 and 1999 revealed that women are less likely to be full professors even after controlling for variables of productivity and human capital, social capital, social networks and structural capital.

While women professors' rate of promotion is not explained by differences in productivity, it is related to differences in how men and women professors spend their time. Link, Swan and Bozeman (2008) found that professors who have not been promoted to full professor after 7 years spend more time on teaching and less time on research than those who were promoted to full professor in less than 7 years. Multiple studies, including Link, Swan and Bozeman's (2008), have demonstrated that women professors spend less time on research and more time on teaching than men (Bellas and Toutkoushian, 1999; MLA, 2009; Nettles, Perna & Bradburn, 2000; Misra et al. 2009). All ranks of women professors in the MLA study (2009) reported spending 2 hours a week less on research, and women associate professors reported spending 4.9 hours more on course preparation than men (p. 11). Nettles, Perna and Bradburn (2009) found time spent on service was higher for women, although other studies have found no significant difference between time spent on service for men and women (MLA, 2009; Bellas & Toutkoushian, 1999). Slower rates of promotion for women and lower numbers of women at the rank of full professor reflect how teaching is valued less than research in considerations for promotion (Link, Swan and Bozeman, 2008).

Women professors' barriers to entering the rank of full professor have led to higher levels of frustration among women faculty members. In the University of California Faculty Climate Survey, women indicated that they value their mentoring more than their department does, whereas men did not report such differences (Committee on Maximizing the Potential of Women in Academic Science and Engineering, 2007). MLA's Committee on the Status of

Women in the Profession (2006, p. 16) note that women at the rank of associate and full professor feel “less authority, autonomy and control over their work lives than men feel.” In Stout, Staiger, and Jennings’s (2007, p. 113) focus groups with female professors, senior associate professors commented on “heavy administrative or service responsibilities that turn out to be undervalued for promotion to full professor” and feeling “demoralized” (p. 137) due to experiences related to gaining tenure or a promotion. Additionally, women feel higher levels of stress related to issues of advancement and workload than men (Gappa, Austin, & Trice, 2007).

Men and women faculty’s experience of academia may also differ due to differences in demands outside of work. While women academics are less likely to marry or have children than men academics, women report spending significantly more time on housework, childcare, and eldercare than men (Suitor et al. 2001; Gatta and Roos 2004; Misra et al. 2009). Women are also much more likely to be partnered with people who work full-time themselves (Astin and Milem 1997; Jacobs 2004; Jacobs and Winslow 2004; Mason and Goulden 2004). As Jacobs (2004, p. 4) argues, “the long and growing hours expected of full-time professors are one reason that women have made less progress entering the academy than other professions. Limiting the demands of academic life would promote gender equality, a more reasonable balance between work and family commitments, and greater civic participation outside the ivy walls.”

Like other universities, UMass has attempted to address these issues, in hopes of recruiting and retaining a more diverse faculty. UMass policies are among the best in the nation. Since 2001, UMass tenure-line faculty have had access to a paid semester of parental leave, and tenure delays for childbirth or the adoption of a young child. Contract faculty are eligible for this paid leave if they have been employed full-time for six years on state funding. The university also provides childcare subsidies to some junior faculty, as well as tenure delays for eldercare, and paid leave for the care of family member with a serious illness. In addition, UMass provides flexible spending accounts for healthcare and childcare costs. There is a childcare facility on campus, although limited space and a lack of infant care means that most faculty are not able to use it. Yet, despite these supports, our study of work-time at UMass (Misra et al. 2009), showed much higher levels of work-life imbalance among women. Associate professor women also put in the longest workweeks by far (over 100 hours/week, including employment, housework, and care for children and the elderly). At the same time, our study showed that while, on average, women faculty spend more time on service than men, the most dramatic gendered differences in time spent on service and research emerged among the associate professors.

Within this context, what are the experiences of men and women associate professors at UMass? Here, we focus attention on differences in work-time, including how work time is allocated between research, teaching, and service, and well as time spent on housework and care activities. In addition, we look at promotion rates for women and men. Finally, we explore how these experiences relate to their perceptions of the university.

Methods

Data were collected as part of a faculty caregiver equity study commissioned by the Joint Administration-MSP Work-Life committee, and funded by the MSP, the provost’s office, and the Office of Faculty Development. To best understand the experience of faculty the researchers used both surveys and focus group interviews.

Our data collection process is documented in detail in a separate report (Templer et al. 2009). Survey data were collected in December 2008 and February 2009, through a web-based survey, as well as a paper survey sent through campus mail. Although the email request came from the Massachusetts Society of Professors, deans and department chairs also

promoted survey participation. It was stressed that faculty only participate in the survey once. Seven hundred and twenty people *started* the surveys (a 61% response rate), but only three hundred and forty nine faculty completed surveys, (a 30% response rate).² We focus our analyses on the 349 completed surveys. Men were somewhat underrepresented and women were somewhat overrepresented in our sample, although men and women faculty compose similar proportions—53% of the sample is female while 45% is male.³ The higher response rate for women than men in this sample is consistent with other campus studies that address work-life and work-family balance (University of Wisconsin, 1999; Sutor et al. 2001). By rank, our sample is relatively similar to the population, although assistant professors were overrepresented and contract faculty and full professors were slightly underrepresented. There was relatively good representation by college; however, faculty in the College of Engineering and the College of Natural Sciences and Mathematics were slightly underrepresented, while members of the College of Social and Behavioral Science were slightly overrepresented.

The survey included time-use measures for professional and personal activities, with special attention to caregiving responsibilities broadly defined as time spent caring for children, elders, or other long term care. Although we have no University-wide data on care – many survey respondents were parents. This may reflect realities in the larger population, although it may be that parents were more likely to respond to our survey. The time-use component of the survey used stylized questions for professional and personal activities. Stylized questions provide respondents with a fixed set of categories (e.g. how much time did you spend on research, teaching, and mentoring).⁴ We maximized reliability by providing a discrete list of activities for each category of time use. The following list explains the activities listed in the surveys.

- Research or Creative Activities: Research, reading, writing, meeting with research assistants or collaborators, presenting at conferences, practicing, performing, directing, or composing
- Teaching: Teaching undergraduate and graduate courses or independent studies, teaching preparation, grading, emailing and office hours
- Mentoring: Assisting with senior theses, serving on committees, reading and commenting on papers, advising, emailing and writing letters of recommendation
- Service to the University: Serving on committees, attending meetings, emailing, organizing or participating in workshops or forums, mentoring and advising other faculty members, participating in faculty senate, and holding MSP leadership positions.
- Service to your Professional Discipline: Reviewer for professional journal, press, or foundation/agency, editor for professional journal, peer-review panels, serving on associational committees, attending meetings, emailing & organizing conferences or workshops, application of expertise, technology transfers, clinical work
- Housework and Home Maintenance: Shopping, cooking, cleaning, laundry, paying bills, and home repair
- Childcare: Meeting the needs of or spending time with children and teenagers under the age of 18
- Eldercare: Providing physical care, emotional support, spending time with, and assisting with daily living tasks, finances, transportation, or housekeeping, for adults age 65+

² This response rate is average for a web-based survey (Shih and Fan 2008). It is likely that the length of the survey deterred some of those who initiated the survey from completing it.

³ In comparison, the population gender composition is 38 % women and 61 % men.

⁴ This is in contrast to time diary or beeper studies where respondents simply report what they were doing at a given time. While we would have preferred the time diary or beeper approach, it would have been prohibitively expensive. Stylized questions are still the most widely used form of time-use data collection since they are more affordable than time-diary or beeper studies.

- Other Long Term Care: Providing physical care, emotional support, spending time with, and assisting with daily living tasks, finances, transportation, or housekeeping, for a family member or friend between the ages of 18 and 65

Respondents were asked to provide weekly time use estimates for professional and personal activities for the five-day workweek (120 hours) and for the weekend (48 hours). We asked them to provide us with data for the preceding week, or if that week was atypical, a typical week.

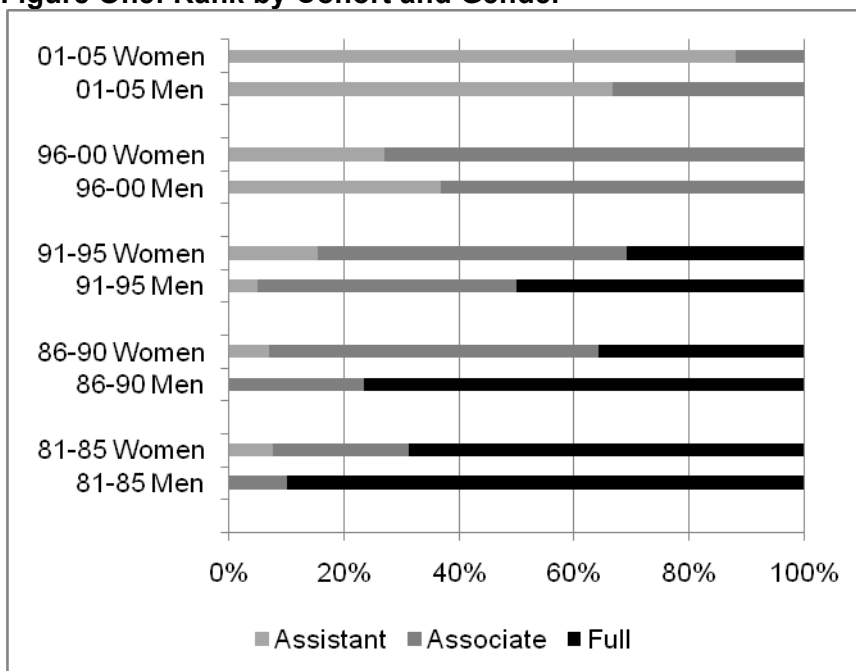
Six focus group luncheons for faculty were held in April of 2009. All contract, assistant, and associate faculty members were sent an email invitation to participate in the focus groups, of the 100+ faculty who responded to the invitation, 65 participated. Faculty worked in small groups of 3-5 for the first 15-20 minutes. Each group answered: (1) what challenges have you experienced regarding work-life balance while employed at the University of Massachusetts and (2) what types of programs, services, and/or other support would help you most in terms of navigating work-life balance? After working in small groups a larger group discussion was facilitated by representatives from the MSP and the Office of Faculty Development. In addition, three focus groups of associate professors were held in December 2008, run by the Office of Faculty Development, who has graciously given us access to their data.

Findings

Gender & Rank

One question is simply whether women and men are advancing to full professorships after a similar amount of time. Figure One summarizes the rank of women and men UMass faculty, by the cohort in which they received their PhDs. There may be important differences by cohort, as academia is a dynamic institution, which has become more inclusive over time. Therefore, “81-85 Women” refers to women who earned their PhDs between 1981 and 1985. We can then compare them to men who were in the same doctoral cohorts. Light grey refers to Assistants, dark grey to Associates, and black to Fulls.

Figure One: Rank by Cohort and Gender



Clearly, there are gender differences by cohort.⁵ In every cohort but one, men are more likely to have earned tenure, and more likely to have achieved full professorships. These differences are quite dramatic, especially in the 1986-1990 cohort, where more than three-quarters of men have achieved full, compared to slightly more than one-third of women.⁶ Interestingly, more women in the 1996-2000 cohort have achieved Associate than men; however, more men in the 2001-2005 cohort have achieved Associate status. Since these figures do not include any men or women who were denied tenure and left the university, the patterned differences here are relatively conservative estimates; research suggests that women are much more likely to leave academia. This figure suggests that there may be gendered differences in who attains promotion at the university.

Another way to consider this is to consider time to Associate from PhD, as well as time to Full from PhD. This cohort data is presented in Table One, below, as defined by when a faculty member earned her/his highest degree (usually a Ph.D.). One problem in this data is that we asked respondents to list when they achieved a rank at the University of Massachusetts. Therefore, someone who was hired at UMass as an Associate, would have the year hired as the year they were promoted, even if they had indeed achieved that rank earlier in their career. Given that those moving at higher ranks tend to be particularly successful, this does bias our data. At the same time, we neglected to ask any questions about postdoctoral appointments, which are more likely to be taken by scientists (and therefore, disproportionately by men), which might add years before tenure or full. This would make our analyses somewhat conservative in that we are dampening any gendered effects.

Table One: Time to Full by Gender and Cohort

	Time to Assoc from PhD		Time to Full from PhD	
	Women	Men	Women	Men
Cohort 1970-80 (n= 33, 35)	10.0	7.7	17	16.1
Cohort 1981-85 (n=27, 28)	9.1	8.4	16.4	17.3
Cohort 1985-90 (n=18, 27)	10.3	8.1	15.6	14.6
Cohort 1991-95 (n=18, 38)	8.9	9.8	14.6	12.1
Cohort 1996-2000 (n=31)	7.2	7.8	-	-

On the whole, men appear to earn both tenure and promotion more quickly than women, although these differences are only statistically significant in the 1985-1990 cohort for tenures, and the 1991-1995 cohort for promotions to Full. When we look at these same data, not broken down by cohort, we find similar overall patterns, with men generally taking slightly less time to earn promotions.

In Table Two, we consider time to promotion by parenthood status. Here, we examine difference between mothers and fathers, childless women and childless men. However, we further analyze fathers and mothers, to examine whether having children during or before graduate school, or during the pre-tenure years, had an important effect on time to promotion. Most of these findings are only marginally significant (.10 level) by gender, although the difference between mothers and fathers who have their first children before earning their doctorate is statistically significant. Since we are analyzing very small numbers of cases,

⁵ We find very similar gendered patterns of faculty by rank when we analyze publicly available data for all UMass faculty.

⁶ This difference for the 86-90 cohort is statistically significant, while there are only marginally significant differences for the 91-95 cohort and the 01-05 cohort, and no statistically significant differences for the 81-85 and 96-00 cohorts.

these marginally significant results do imply real relationships between gender, parenthood, and promotion.

Table Two: Time to Promotion by Gender and Parenthood Status

	Time to Tenure from PhD		Time to Full from PhD	
	Women	Men	Women	Men
	Parents	8.8	8.3	16.7
Parents before PhD	8.6	6.5	21.4	16.6
Parents before Tenure	9.4	8.4	17.8	15.7
Childless	8.7	8.3	15.9	15.7

Overall, women still have longer waits until promotion, although childless women look more like childless men than mothers look like fathers. Interestingly, women who have children before earning their doctorate have a much longer wait until they are promoted to full, while mothers who have children while on the tenure track have a longer wait until they receive tenure. On the other hand, fathers look very similar to one another, and to childless men, although fathers who have children before earning their doctorates seem to earn tenure particularly quickly.

Our survey also asked questions of any major administrative positions held by faculty. Interestingly, the data do suggest some gendered differences in men’s and women’s administrative roles while they are still Associates. Table Three presents these results. For example, almost 35% of women served as Undergraduate Director while associate professors, compared to 17% of men. These trends are not the same for Full professors – where men and women more equally have served as Undergraduate Director. Since Undergraduate Director is more oriented toward teaching and working with undergraduates – both tasks that tend to be undervalued – this may suggest gendered norms in place, where women Associates are spending more time on devalued service roles.

Table Three: Percentage of Associate Professors Playing Major Administrative Roles in Departments

	Associate Women (n=46)	Associate Men (n=36)	Full Women (n=35)	Full Men (n=62)
Undergrad Director	34.8%	16.7%	14.2%	16.3%
Graduate Director	24%	25%	37.1%	45.2%
Associate Chair	4.4%	5.6%	17.1%	6.5%
Chair	15.2%	0.0%	14.0%	35.3%

If this is true, however, it does not hold for Chairships. Being Chair of a department is generally viewed as *more* prestigious, reflecting high levels of respect for a person. Yet, not *one* of the Associate men who responded to the survey has served as chair, compared to 15% of the Associate women. These women serving as chair have been compensated for their service, both with additional pay, and teaching releases. We also examined compensation (in the form of course releases and extra pay) for taking on major administrative roles, and for the most part did not see statistically significant differences between men and women.

Yet, why are women serving as Chair while still Associate professors? Might a highly intensive job such as chair slow progress towards promotion? Among Full professors, men are considerably more likely to have served as Chair of their department. Indeed, among Fulls,

women and men have much the same experience as men regarding major administrative roles, and are *only* more likely to have served as Associate Chair. In Table Four, we look directly at time to promotion by service positions. Unfortunately, our study did not ask for the year that particular service positions were held. Therefore, Table Four examines how many years fell between achieving promotions and receiving their highest degree, by whether they had held any sort of major service positions (at any rank).

Table Four: Time to Promotion by Gender and Major Administrative Positions

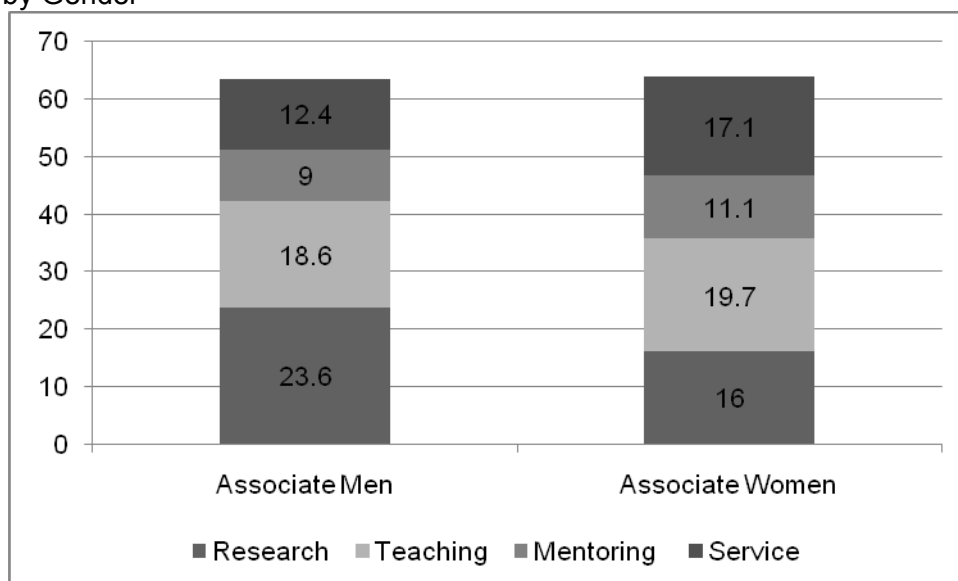
	Time to Assoc from PhD		Time to Full from PhD	
	Women	Men	Women	Men
Chair	7.8	7.2	15.4	15.5
Associate Chair ⁷	7.5	9	15.8	15.8
Graduate Program Director	7.3	7.0	16.8	16.5
Undergrad Program Director	12	7.6	19.6	15.8
Average for All Faculty	8.7	8.3	16.4	15.8

Since relatively few faculty have served as Associate Chair, these numbers are based on very small sample size. However, Table Four suggests that, for the most part, those who have served in major administrative positions for their departments have also advanced at a reasonable, if not quicker, pace than the average faculty member. The major exception to this is women who have served as Undergraduate Program Director. In this position, *held by more than one third of Associate Women*, there is a considerable delay both to tenure, and to achieving promotion to Full. In our focus groups, many faculty discussed this issue. One faculty participant referred to associate professorship as “*the midcareer service gully that we find ourselves taking an extended stay in.*” (4/7)

Working Time

Despite having earned tenure and job security, Associate professors still express a significant amount of stress about the time they spend on their jobs, particularly in terms of service, teaching, and mentoring time. One associate professor noted “*If I set limits, I know it means [other faculty and grad students] will do that extra work. I feel guilty if I say no.*” (4/7)

Figure Two: Reported Weekly Hours Spent on Service, Mentoring, Teaching, and Research by Gender



⁷ Based on a very small sample size.

Our survey data show that although time spent on work is very similar for Associate women and Associate men, the distribution of their work time varies considerably. As Figure Two illustrates, Associate men and women spend, on average, 64 hours working each week. Men spend, on average, 11.2 hours working each weekend, as compared to 12.2 hours of weekend work for women.⁸

Associate men spent more than 7.5 hours each week more on their research than Associate women. Even if these differences in research time only exist during semesters, this would mean that men spend more than two hundred extra hours on their research each year. On the other hand, Associate women spend an extra hour each week on teaching, more than two hours each week on mentoring, and almost five more hours each week on service.

Another way to consider this would be to look at the percentage of time that faculty spend on research, teaching, mentoring, and service. Figure Three presents this information. On average, Associate men spend 37% of their time on research, compared to Associate women's 25% of their time on research. At the same time, Associate women spend 27% of their time on service, compared to 20% of the Associate men's time spent on service. This dramatic difference suggests that men are more focused on research, which earns greater rewards in terms of prestige and potential for promotion to Full Professor. As one Associate noted in response to an open-ended question, one serious difficulty is in "balancing research, teaching and service. In reality only research matters when it comes to tenure and promotion, but service and teaching require lots of time."

One explanation for this might be that Associate women *enjoy* service more, while Associate men *prefer* spending time on research. Yet, the qualitative data from our survey, as well as the focus group data, does not support this interpretation. Overwhelmingly, faculty express that they much prefer to work on research, and do not enjoy their time spent on service. Similarly, they express frustration at how service is distributed. As one Associate noted, "Having good judgment, being thorough, and conscientious means *more work*, i.e. misdistribution of service hours—the reward for good work is more work." (4/7) Another argued, "There are faculty that earn twice as much as I do, but they are making more work for everyone, since they don't share in the work that needs to be done" (4/7) In addition, our Associate faculty participants viewed service as impinging on their time outside of work: "There are often unpredictable service duties, making it difficult to protect time with families. Teaching is predictable, and research is more predictable, but service is less so, personnel issues that are unexpected, or search committees requiring evening time" (4/7)

In the focus groups, as well as in the open-ended questions on the survey, faculty voiced that when faced with so many demands, research is the first to be sacrificed. As one Associate noted in response to an open-ended survey question, many faculty feel they "have to fit research into 'spare time' that isn't consumed by committee meetings, teaching undergrads and mentoring grad students." As one Associate noted, this focus on service is "actually very counterproductive for the university. Tenured faculty are seasoned researchers, if they are putting all their time into admin[istration] rather than research it is really terrible for the university." (4/24) Yet the work trends are very different by gender, suggesting that women are feeling particularly pressured by their service, mentoring, and teaching demands.

Focus group participants directly related the pressure on Associates to do service, and the imbalance of service to difficulties attaining promotion. In one exchange, one Associate noted, "Because departments try to shield junior faculty from service, and full professors are usually in a better position to say "no" when asked, associate professors often carry disproportionately heavy service loads compared to their junior and senior colleagues," while another responded

⁸ While there is no statistical difference in numbers of hours worked by gender, there is a marginally significant difference ($p < .10$) in time spent on weekend work.

with “Some departments have lost a lot of faculty, so their full professor ranks are thin. Even if these departments are hiring assistant professors, the associates are doing most of the service to protect the junior faculty.” (12/14-16) As one participant noted, these pressures combined with a devaluing of service is problematic regarding promotion: “Something has to give at some point, if there was a recognition of these different aspects, different balance for different people. [Recognizing that] this person is putting time into doing this, or into doing that, and valuing them for that” (4/7) Others argued:

There’s a contradiction between the pressure for service at the associate level, and the devaluing of service for promotion to full. (12/14-16)

People who do a lot service for their departments and schools have difficulty going up for full because they just don’t get enough time to do their research.” (12/14-16)

The criteria for promotion is research. Associate professors have time for everything BUT research. (12/14-16)

Figure Three: Distribution of Reported Weekly Hours on Research, Teaching, Mentoring, and Service, by Gender

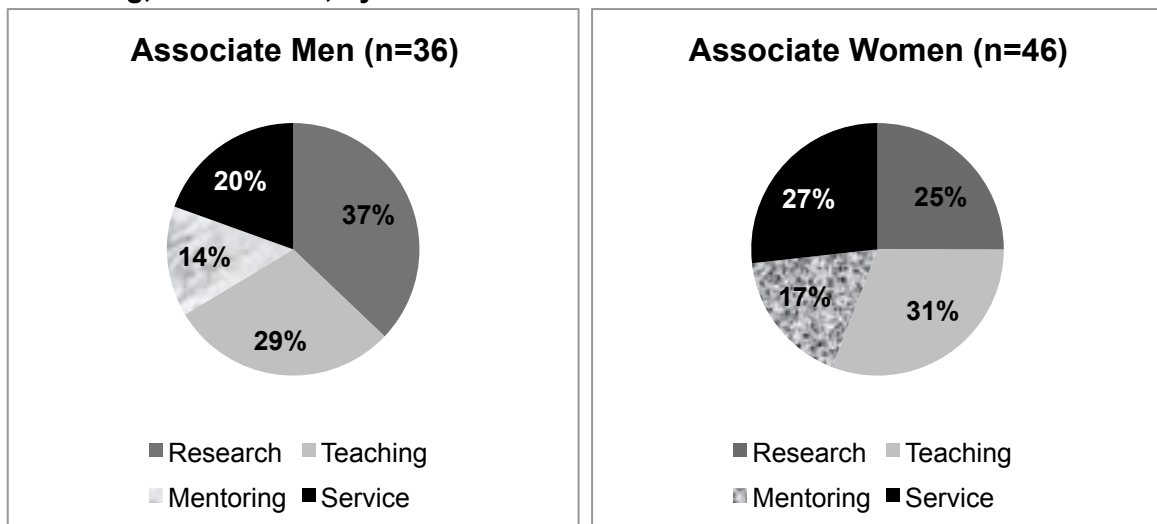
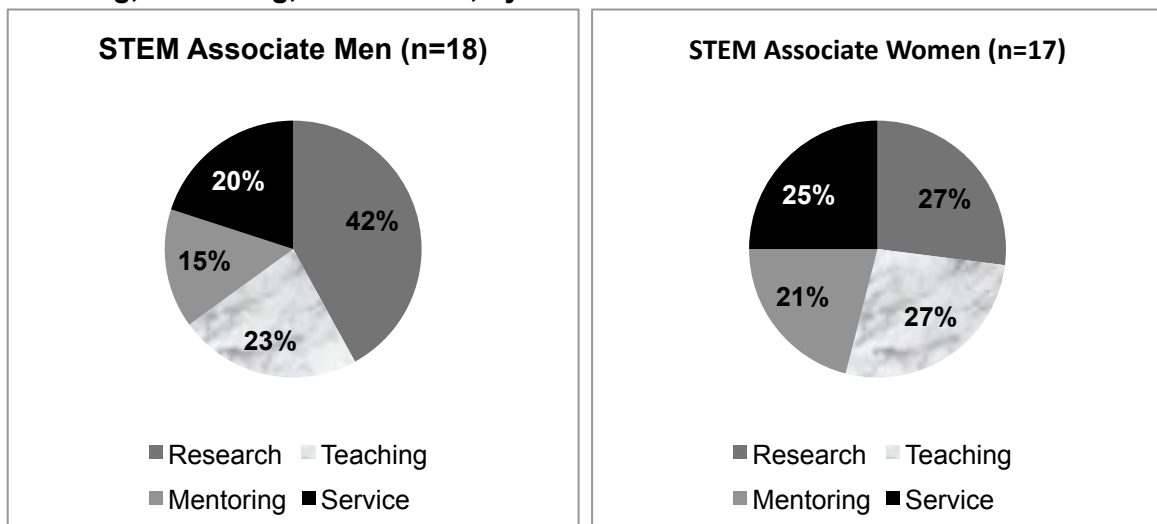
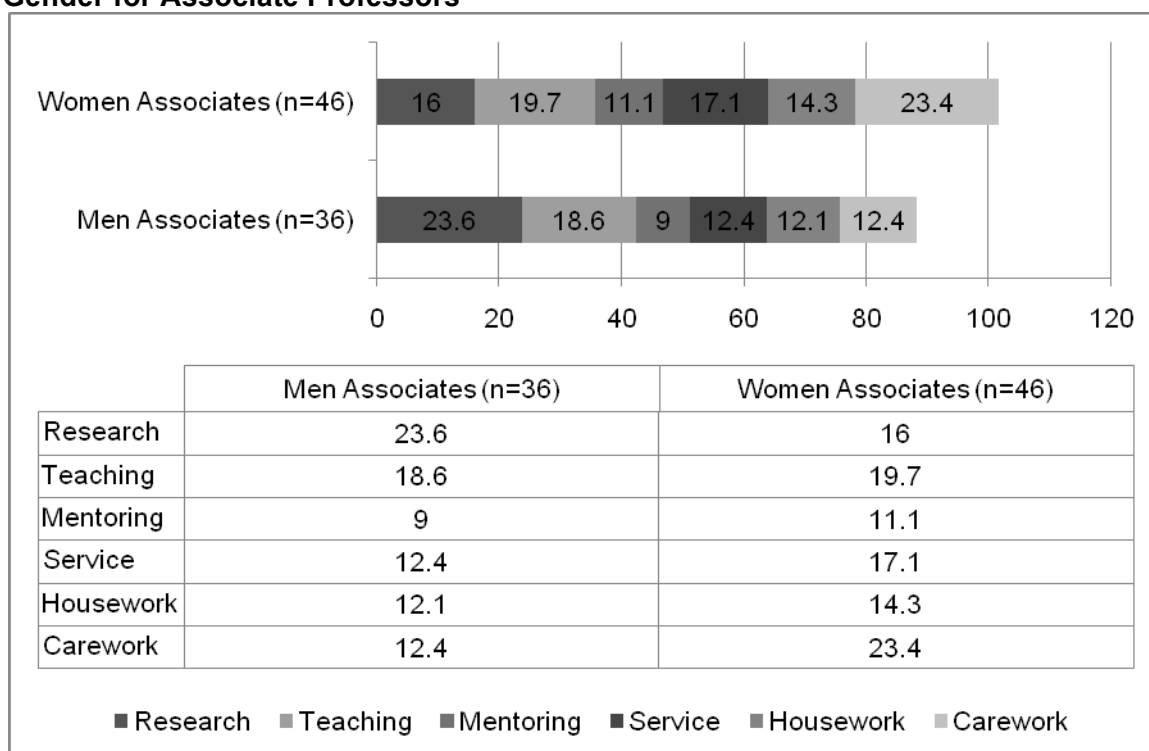


Figure Four: Distribution of Reported Weekly Hours for STEM Faculty on Research, Teaching, Mentoring, and Service, by Gender



If we focus our attention on STEM faculty, we find very similar patterns, despite the fact that STEM faculty, overall, have lower teaching loads, and therefore more time to spend on research. Figure Four presents this information. On average, STEM Associate men and women spend less time on teaching than all associate men and women, in keeping with their lower teaching loads. Yet, STEM Associate men spend significantly more time on research (42%) than STEM Associate women (27%). Indeed, STEM Associate women are spending more time on mentoring (21% of time for STEM Associate women, as compared to 15% of time for STEM Associate Men). STEM Associate Women spend 25% of their time on service, as compared to 20% for STEM Associate Men. Rather than finding that differences in focus on research, teaching/mentoring, and service reflect that men are more likely to be working in research-intensive STEM disciplines, we find that gendered patterns of work distribution are exacerbated when we focus on STEM faculty.

Figure Five: Reported Weekly Hours Spent on Paid Work, Housework, and Carework by Gender for Associate Professors



In addition to their time carrying out research, teaching, mentoring, and service, UMass faculty have care responsibilities to family members and friends, as well as other “life” activities. It was particularly noticeable in our data that Associate women had unusually long days, when we compare them to faculty of other rank and to men. Associate women report working and providing housework and care for, on average, 102 hours per week, compared to, on average, 90 hours per week for Associate Men (14% more time per week).⁹ Figure Five summarizes these differences among Associates by gender. Women associates spend two more hours a week on housework, and more than twelve hours more a week on carework for children, the elderly, or disabled and sick family members and friends. As one focus group participant noted, “Associate professors are the ‘sandwich/Panini’ generation. Many have young children

⁹ Jacobs and Winslow (2004b) report that in their national sample, associate professors reported the greatest dissatisfaction with workload.

and elderly parents. It's hard to balance all of this and continue doing as much, if not more work than ever." (12/14-16)

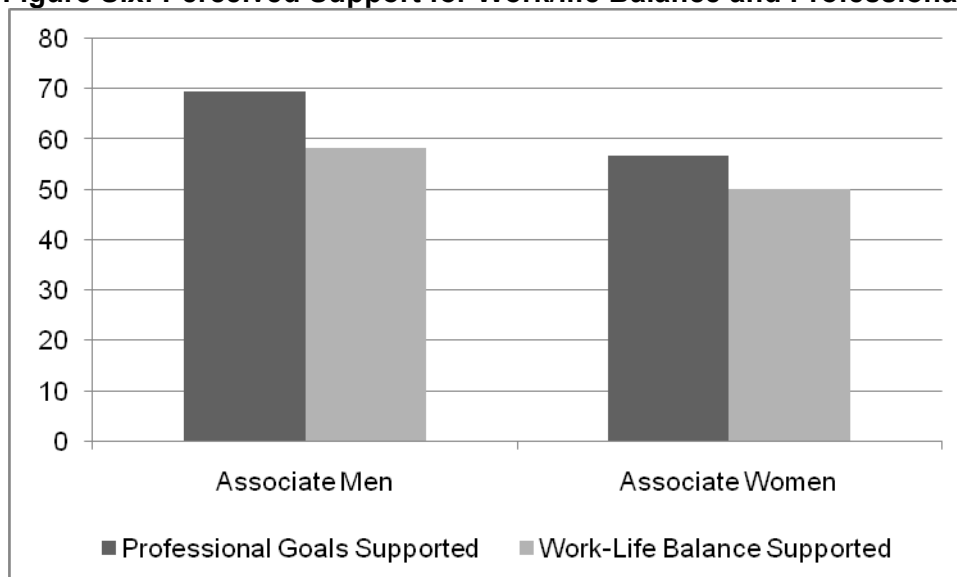
Associate women faculty do differ from Associate men faculty, in that they are somewhat more likely to have children, though they have fewer children than Associate men (this difference is statically significant). Yet almost two-thirds of Associate women (64.7%) compared to only 6% of Associate men report being the primary caregiver for their children; in comparison 8.8% of Associate women, compared to 40% of Associate men report being the secondary caregiver for their children (the remaining report shared caregiving responsibilities). As one Associate focus group participant noted, "The career of the person responsible for primary care usually goes slower." (12/14=16) Associate women also are more likely to report eldercare responsibilities, and spend more time on these responsibilities. As one Associate noted in our focus groups, "I think there is a real generation gap. . . This is a challenge for young faculty and young parents to make a path for ourselves in this system, which for a long time looked down on having a family." (4/24)

This suggests that women's longer timetable to promotion is related to both their greater service obligations on campus – especially for women who serve as undergrad director, and their greater housework and carework duties at home. Women's caregiving responsibilities can have effects on every stage of their career, from hiring to tenure to promotion. As one associate woman noted, "I am the person having to say this to my peers--women have different constraints. E.g. recruitment committee should understand a two year hole in a women's cv is because she had a child." (4/7)

Effects of Work-Time Stress

Our survey also asked faculty about how supported they felt in achieving their professional goals, and how supported they felt in achieving work-life balance. Figure Six summarizes how Associate men and women faculty responded to these questions. Women Associates not only perceive less support for their work-life balance, but perceive considerably less support for their professional goals.

Figure Six: Perceived Support for Work/life Balance and Professional Goals



Given previous results showing that women tend to be spending more time on service and mentoring than on highly rewarded research, these findings are particularly interesting. Although women have "made it" into the university, and among this group, have even attained tenure, many still perceive a lack of support for their professional goals.

Discussion and Recommendations

Despite the supportive work-life policies already in place at UMass, we find that Associate women and men are experiencing their jobs very differently. Associate women are spending many more hours on service work, mentoring, and teaching, while Associate men are focusing many more of their work hours on research. As a result, we find that Associate women are particularly overburdened, with lesser chance of achieving promotion, and many achieving promotion spending longer time in rank. This is particularly exacerbated for women who serve as Undergraduate Program Director, though the effect of other service positions is much smaller. At the same time, Associate women have much greater care burdens outside of the university, even though they maintain the same number of work hours as Associate men.

What policies might help alleviate the stress experienced by UMass Associates? In our focus groups, we asked faculty to consider solutions to the problems they identified. In addition, we draw on the larger work-life literature to suggest some additional policies and programs. We recommend three policy changes that would require university investment, and three policy changes that would require shifting the culture of work at UMass.

Programs requiring financial investment:

- (1) *Hire Additional Faculty.* Due to the budget crisis, current budget strategies emphasize attracting greater numbers of students and encouraging more grant activity, while postponing even replacement faculty searches. This strategy will affect the productivity and morale of the faculty. When possible, it is crucial to expand the number of UMass faculty, so that fewer faculty are not responsible for expanded teaching, advising, service, and research demands. Faculty-student ratios need to be brought down to earlier levels, and lost faculty should be replaced.
- (2) *Reduced Workload for Faculty with Care Responsibilities.* Faculty members with intense caregiving responsibilities should have the option of a reduced workload, without loss of status, to handle responsibilities. For example, a faculty member caring for a parent or partner with Alzheimer's should have the option to request lower responsibilities when the care burdens become too high. Because almost all faculty – not just parents – face these care demands at some point, such a policy would be useful to all faculty.
- (3) *Mentoring Support.* Faculty members should receive mentoring regarding how to achieve promotion to Full. There should be workshops that emphasize the “pathway” to full, and mentoring, especially for women Associates, regarding how to achieve promotion in the face of what seems like ever-increasing service demands (Branch-Brioso 2009). Programs like the Mellon Mutual Mentoring programs should be expanded and supported by the university.

Programs requiring cultural changes:

- (4) *Equally Distribute Teaching, Service, and Mentoring among the Faculty, and Value all of these Efforts in Making Promotion and Tenure Decisions.* Deans and department chairs/heads need to examine teaching, advising, mentoring and service responsibilities to ensure that all faculty pull their weight, and reward them accordingly. Our survey shows dramatic differences in time spent on these activities – with women doing much more of service and mentoring than men. Department chairs should review expectations around service, teaching, and mentoring with their departments, and ensure that women are not disproportionately carrying the service burdens for their departments.

- (5) *Recognize Care-Related Gaps on Vitas as Acceptable.* One of the greatest difficulties for faculty with care responsibilities – whether for a sick partner, a dying parent, or the birth/adoption of a child – is that, particularly pre-tenure, they are often judged by the continuity of their intellectual contributions. Yet, if review committees and administrators making hiring and promotion decisions instead took into account the timing of these care responsibilities, these short-term responsibilities would not derail academic careers. Increasingly fellowships consider these responsibilities in decision-making; asking deans, department heads, recruitment committees, and personnel committees to similarly consider these responsibilities in judging academic careers would have the effect of diversifying the professoriate.
- (6) *Voice Greater Support for Work-Life Balance.* Faculty called for greater leadership at UMass regarding work-life balance, including statements about the importance of work-life balance for the long-run health of the institution and its faculty, staff, and students. Statements from the administration about the value of balanced lives would provide greater support, and these statements should be included in faculty job advertisements, as they would likely strengthen the pools of applicants. Strong support from the administration in favor of balanced lives would have important effects on the campus.

All in all, despite a number of supportive work-life policies currently in place for faculty, many faculty are working exceptionally hard, without receiving rewards such as promotion. These experiences are particularly troubling for Associate women. There is a need to recognize the gendered differences that lead to different experiences for Associate men and women, and to institute policy and cultural change on our campus, so as to ensure that men and women are equally supported in their professional and work-life balance. We expect that these recommendations would help UMass create a more diverse, and stronger university.

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