The Geography of Work and Home at the University of Massachusetts-Amherst

Joint Administration-Massachusetts Society of Professors Work-Life Committee Report

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The Joint Administration-MSP Work-Life committee designed a campus-wide survey to shed light on the ways in which faculty at the University of Massachusetts, Amherst negotiate the boundaries between work and life. This report focuses on the physical aspect of this divide by estimating the role of commuting for faculty members. It turns out that this is a more complex story than just commute times to work. Instead, it is a story about the social and physical geography of workers and their families, one that breaks into multiple storylines based on gender and generational divides.

Major findings from this report include:

• While housing costs have decreased throughout the nation, the median sales price for single-family homes in the Northeast remains above the national median, and median sales price for homes in Amherst remain well above even the regional median (see Figure 1). These costs, relative to faculty salaries, have led faculty to live farther away from Amherst, despite the higher quality schools in Amherst.

• Assistant professors and women faculty are most likely to be affected by lengthening commutes, making commute time an important recruitment and retention issue. Commuting is more likely even for senior women, relative to senior men, which may be explained by the fact that women faculty members are much more likely to be partnered to someone working full-time than men. Almost one-third of men have partners that do not work full-time, compared to 17% of women.

• For those who share a residence and whose partners do not work at UMass, men’s partners commute 50 minutes and women’s partners commute on average 70 minutes – both much longer than national averages for commute times. UMass faculty women are much more likely to be partnered with someone who lives elsewhere for work. Only 8% of men faculty, compared to 16.5% of women faculty, face this reality.

• Of all UMass faculty who live apart from their partners for work-related reasons, 72% are women. In these cases, men’s partners were more likely (75%) to have tried to get a job at UMass than women’s partners (38%).

• Those who live close to campus (0-10 minutes) express greater satisfaction with the University’s career support and work-family balance support.

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Background

According to the American Time Use Survey the average one-way commute time (for commuters) per day was 21.3 minutes (BLS 2007). Long commute times can cause stress and reduce productivity. The “commuter paradox” has been coined by economists to describe the trade-off made by individuals for longer commutes in exchange for something that makes the commute worthwhile, such as affordable housing, higher wages, and better school districts. Despite commuters' expectation that the “reward” is worth the cost, studies indicate that commuters tend to be less satisfied with their lives than non-commuters (Conlin et al 2005; Stutzer and Frey 2004). This coincides with research that the longer the commute time, the higher the levels of mental and emotional stress (Van Rooy 2006) and the greater likelihood of work-related injuries (Kirkcaldy et al 1997).

In addition to concerns about housing costs, access to quality primary and secondary education, and the stress of long commute trips, commuters also face other, less visible costs. Commuters must spend more income on gas than non-commuters; a cost which rises along with gas prices. Long commutes also translate into increased car maintenance and faster depreciation. Additionally, commuters may face the cost of private schools for their children, or an additional commute if children participate in a School Choice Program (and, therefore, attend school some distance from where they live with no school busing option).

There are other social costs to consider. Putnam (2001) argues commuting is a major cause of civic disengagement. A report issued by the UMass Office of Academic Planning and Assessment (OAPA) and the Office of Institutional Research (OIR) (2001) pointed out that “faculty contact is another important element of student engagement” (pg. 3). Many activities at the University occur evenings or weekends; student groups often meet after classes end during the day. Faculty participation in university activities and student groups enhances the college experience for students. A long commute decreases the opportunity that faculty will engage with the University community as the cost of engagement may be too high. While committed faculty may still make an effort to do so, they may do so at the cost of a healthy work-family balance.

Nationwide, men, on average have slightly higher commute times at 23.7 minutes compared to women’s commute time at 18.3 minutes (BLS 2007). Yet, studies focused on academic commuting show that, in contrast to national trends, women university employees, on average, travel longer distances. Brooker-Gross and Maraffa (1985) suggest that university women earn less than their partners, and thus make geographic sacrifices. Their research indicates that women faculty are more likely than men faculty to have partners who work full-time, live elsewhere to work, and who have, on average, longer commute times than the women partners of male faculty.

All in all, longer commutes have a number of hidden costs, such as higher work-life balance stress, longer work days when considering commute time as unpaid work time, lowered work productivity and satisfaction, limited access to high quality school systems, lower access to public transportation options, higher transportation expenses, and limited social connections to the University community.
Salary and Cost of Living

Figure 1 shows the relationship between local housing prices and distance in miles from UMass, Amherst for two time periods. Houses located furthest away from Amherst (Greenfield, Holyoke and Springfield), are a fraction of the cost of homes in Amherst.\(^2\) While median home prices in many areas decreased slightly in the 2008 real estate slowdown, the median cost of Amherst homes actually increased slightly.

**Figure 1. Median Sales Price for Single Family Homes in Towns Surround the University of Massachusetts-Amherst, 2007 and 2008.**


Despite the high cost of housing in Amherst, UMass faculty generally receive lower salaries and fewer benefits relative to the regional standard for faculty at other large, public universities, particularly at the assistant professor rank (AAUP 2009). When compared to peer institutions, assistant professors at UMass are among the lowest paid ($68,200) relative to the regional cost of living (see Figure 2).\(^3\) Assistant professors at the University of Connecticut (UConn), for example, “take home” $11,400 more each year. Out of six peer institutions, only the University of California-Irvine (UCI) is ranked lower than UMass and, this school has an expansive housing program to offset cost of living for faculty.\(^4\) Liberal arts colleges in the Amherst area, such as Amherst College and Mount Holyoke, offer higher wages than UMass ($77,400 and $68,400 respectively, according to the AAUP 2009) and have mortgage programs to help faculty purchase homes in the area.

\(^2\) Although Pelham appears to be located farther away from Amherst than Belchertown, the town line abuts Amherst, and it shares a regional school district with Amherst.

\(^3\) The six schools include: University of California-Irvine (UCI), University of Pennsylvania (UPenn), University of Connecticut (UConn), University of Maryland-Baltimore (UMB), Rutgers-New Brunswick (Rutgers-NB), and the University of Nebraska-Lincoln (UNC).

\(^4\) Cost of living was calculated using Sperlings Best Places “Cost of Living Calculator” (http://www.bestplaces.net/) Accessed July 8\(^{th}\), 2009). This site is consider to be on par with the calculator at both the New York Times and CNN(http://www.bizjournals.com/albany/stories/2008/03/24/ focus4.html) and allows for a town, rather than area or country, level comparison. In order to compare cost of living, the average salary for an assistant or associate professor was used as the base salary. We then used Sperlings Best Places to establish what the equivalent salary would be in each of the six comparison cities.
While salary and cost of living are important for recruiting new faculty, these factors also matter for retention. For associate professors, in salary relative to the cost of living, The University of Massachusetts-Amherst is once again ranked second to last (see Figure 2). This increases the likelihood that faculty with options for employment at other universities may leave.\(^5\)

Considering Figures 1 and 2 together, it is clear that recently hired faculty may be less likely to live close to the University of Massachusetts-Amherst campus.

**Access to Quality Primary and Secondary Schooling**

Another cost of living further from Amherst is decreased access to quality primary and secondary education; towns with more affordable housing tend to have lower property taxes, which may lead to weaker school systems. The ability of faculty with children to access quality schooling is very important and may impact faculty’s decisions to come to or remain at UMass. Greatschools.net uses the Massachusetts Comprehensive Assessment System (MCAS) test scores to rank schools within the state.\(^6\) As Table 1 shows, the highest rating Greatschools.net offers is a “10” and the lowest rating a school can receive is a “1”. Amherst High School, which is one of the best in the state, while most other schools fall short of this standard. Although Massachusetts offers a school choice program,\(^7\) Amherst public schools no longer accept school-choice students.

**Table 1. Rating of High Schools in the Pioneer Valley**

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<tr>
<th>TOWN</th>
<th>SCHOOL</th>
<th>RATING</th>
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<tr>
<td>Amherst-Pelham</td>
<td>Amherst Regional High School</td>
<td>9</td>
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<tr>
<td>Hadley</td>
<td>Hopkins Academy</td>
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\(^5\) The AAUP lists the average salary for a UMass assistant professor at $68,200 and a UMass associate professor at $89,700. This is very close to a recent study (Divver 2009) conducted at the University of Massachusetts-Amherst, which lists the average salary as $68,773 and $87,518 respectively.

\(^6\) For further discussion of the methods used by GreatSchools.net, see http://www.greatschools.net/cgi-bin/showarticle/1023#1. The data for this table was accessed July 20\(^{th}\), 2009.

\(^7\) Inter-district school choice allows school districts to decide, on a yearly basis, whether or not children outside of each school’s district are allowed to attend. For further information, see, http://www.massresources.org/pages.cfm?ContentID=99&pageID=32&Subpages=%27yes%27&DynamicID=890#schoolchoice.
Methods

Data on commuting were collected as part of the faculty caregiver equity study commissioned by the Joint Administration-MSP Work-Life committee. Most of the commute data in this report come from a campus-wide survey, which was collected in two waves (see Templer 2009 for detailed discussion of methodology). To maximize anonymity, participation of individual faculty members was not traced. Rather, we monitored the response rates of departments and colleges, contacting deans, department chairs, and individual faculty to encourage departmental participation. Three hundred and forty nine faculty completed surveys, a thirty (30) percent response rate, average for online surveys (Shih and Fan 2009). Some of the data in this report also come from focus group luncheons, in which 77 faculty members and librarians participated during April of 2009.

Findings

The survey data addressed the issue of housing and commuting more comprehensively than the focus group data. However, one focus group participant noted that Amherst is an “expensive area for living” while another stated that finding a place to live in the area as a new hire was difficult. Librarians also noted the following, “affordable housing closer to work would reduce commute time and increase work/life balance.” Overall, focus group respondents noted that a University-sponsored mortgage program would be helpful.

The survey data show that the average commute time for faculty to the University of Massachusetts-Amherst is under twenty minutes. This is an encouraging finding, as it is slightly lower than the national commute average of 21.3 minutes (BLS 2007). However, this is an advantage enjoyed by more men than women, as Figure 3 shows. Sixty-two percent of men commute to work in under twenty minutes as compared to only 54 percent of women. Women are more likely to spend a longer amount of time on the

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8 Respondents were asked, “How long does it take to get from your house to campus?”—a multiple choice question with eight time ranges to choose from. For analysis, the values were aggregated into three categories—0-20 minutes, 21-45 minutes, and 46+ minutes. If applicable, respondents reported spouse or partner one-way commute in minutes.
road, including those commuting between 21-45 and those commuting 46+ minutes each way.

**Figure 3. Commute Times, Men versus Women Faculty (all ranks)**

![Bar chart showing commute times for men versus women faculty.](chart)

This gender difference in commutes is due to a variety of factors. Compared to men, women faculty tend to be younger. Younger, more recently hired faculty arrived when housing prices had increased steeply, limiting their ability to afford a home in Amherst. Thus, not surprisingly, assistant professors have the longest commute times. Ten percent fewer assistant professors live within twenty minutes of campus compared to other faculty working at UMass (see Figure 4). But beyond the gendered age demographic of the University population, there remains a gender gap in commuting time among even the most senior professors on campus. While 68 percent of male full professors live within twenty minutes of commuting time to campus, only 51 percent of full female professors do (see Figure 5).

**Figure 4. Commute Time of Assistant Professors versus Associate and Full Professors**

![Bar chart showing commute times for various ranks.](chart)
Figure 5. Commute Time for Full Professors, Male Faculty versus Female Faculty

This difference likely stems from the fact that women faculty are more often in dual career marriages, resulting in living arrangements sometimes located in a geographic compromise between two different worksites. Nineteen percent (19) of men professors have partners who are not in the labor force at all compared to only 10 percent of women professors’ partners. Furthermore, many more men professors’ partners are employed part-time, possibly indicating the greater centrality of his work, and hence geographic proximity (see Figure 6). This is reflective of the larger trend in the rise of the "100-hour couple", where high achieving female professionals more often partner up with equally career-ambitious partners who also work long hours (Moe and Shandy 2009).

Figure 6: Part-Time and Full-Time Work By Partners of Men and Women Faculty

The median commute time for partners of University of Massachusetts-Amherst faculty is well above the national average, at forty-five minutes for just one commute leg. This varies by the gender of the UMass faculty member, although commute times are long for both male and female partners. For partners who do not work at UMass, partners of women faculty commute almost 70 minutes, compared to 50 minutes for partners of men faculty partners (see Figure 7).
Given that most of these commuters are also parents (68 percent), their long journeys to and from work each day also carry implications for increased family responsibilities of their UMass faculty partners.

A more extreme consequence of the University's rural location is that 13 percent of UMass faculty partners must live somewhere else altogether for their work. But perhaps most indicative of the demands of dual career marriages is that twice as many women faculty as compared to men faculty are married to someone who lives in a different location for his work (see Figure 8). This may be related to the way most academic careers are structured. As Hochschild (2003, 1975) describes, “the classic profile of the academic career is cut to the image of the traditional man with his traditional wife” (pg. 226). Of UMass faculty who live apart from their partners for work-related reasons, 72 percent are women. For men faculty geographically separated from their partners due to competing careers, most (75 percent) of their partners had tried unsuccessfully to secure a position at UMass. For women UMass faculty who live apart from their partners, 38 percent report that their partners tried to get a job at the University. Thus, even though UMass women faculty members are disproportionately affected by these sorts of living arrangements, men faculty members would also benefit from a focus on partner hires.
A commitment to partner hiring is one way that universities can ameliorate the commuting compromises that affect dual-career couples. Fifty percent of the faculty in our sample report that their partners had sought employment at UMass, while a little less than half of those who sought a job at UMass are currently employed by the university. Because the University of Massachusetts-Amherst is located in a rural area with limited job prospects, partners who do not have the good fortune to work on the UMass campus must often commute substantial distances.

To what extent would bridging the geographic gap between work and home potentially affect faculty well-being? We look at the 25% of faculty (n=85) who live within a 0-10 minute commute as a way to represent the UMass population that lives and works within the same locale. When comparing this group to the faculty who live outside of Amherst, some interesting differences in work perceptions emerge.

Compared to their peers who are more ensconced within the campus community, those living farther away are less satisfied on two important indicators of work satisfaction. Figure 9 shows that, when asked about how they feel about their department or program’s provision of a supportive environment for achieving work-life balance, about 11% more of those who live farther afield are dissatisfied. Alternatively, when it comes to perceptions of departmental support for helping the faculty member achieve his or her professional goals, about 7% fewer non-UMass community faculty agree. While we cannot necessarily claim that close proximity to campus alone drives these work satisfaction differences, it would not be surprising if faculty attribute more supportive environments to their departments if their living arrangements also allow them to integrate their personal lives more fluidly into their work lives. This is certainly a relationship that has been supported in the larger literature on commuting times and related satisfaction and stress levels (Conlin et al 2005; Stutzer and Frey 2004; Van Rooy 2006).

Figure 9: Perceived Support for Career (left) and Work-Life Goals (right) by Location of Residence

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9 There is no gender difference in the rate of faculty partner employment or the numbers who sought employment. There is, however, a gender difference in type of University employment, with more women partners of faculty working as staff or contract faculty and more men partners of faculty working as tenure-line faculty.
Recommendations

In the face of these findings, the following policy changes are likely to be the most successful at ameliorating the growing geographical divide between home and work for younger faculty and women faculty at the University of Massachusetts-Amherst:

**Housing Assistance Program:** Faculty primarily live further from campus because of the high cost of living in Amherst. A UMass housing program that lowered the cost of buying or renting a home in Amherst provides an opportunity for faculty to be near campus, lowering commute-related stress and increasing the likelihood faculty will engage in the campus community. Bringing faculty closer to campus would also reduce commuter traffic and parking problems on campus, enabling faculty to walk, bike, or utilize public transportation in their work commutes. Furthermore, the Amherst primary and secondary school systems are the best in the area and faculty’s ability to settle in this school system will make faculty with families more interested in coming to, and staying at, UMass.

Housing programs have been successful at other schools in the five-college system. Amherst College, Smith College, and Mount Holyoke College all offer some kind of rental housing for faculty. Amherst College and Mount Holyoke College both offer mortgage assistance plans to help tenure-line faculty purchase homes in the area surrounding their campus. Amherst College also owns a number of homes which eligible faculty can purchase for eighty percent of the market value, though they are required to sell the homes back to the college at a similar percentage when they decide to leave the property.

Other universities also offer housing assistance programs. UPenn offers two housing assistance programs available through the Penn Home Ownership Services Office. First, the Enhanced Mortgage Program (EMP) offers a $7500 forgivable loan that can be used for “closing costs, down payment, to buy down points, and/or for interior or exterior home improvements.” Second the Closing Cost Reduction Program (CCRP) offers “mortgage financing options with discounted closing costs” and can be used in conjunction with the EMP. The University of California’s Office of Loan Programs offers a variety of lower mortgage interest rates for faculty and senior managers for the entire University of California (UC) system.

**Salary:** Alternatively, increasing the salary for assistant and associate professors can make it easier for younger faculty to afford housing close to the University, with or without housing assistance. The University of Massachusetts-Amherst lags behind

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10 For more information, see http://www.ucop.edu/facil/olp/products.html. Each UC campus, however, can further develop housing assistance programs. UCI took housing assistance a step further by creating an academic housing community—University Hills: “University Hills was created as an academic community in residence to provide affordable housing to eligible full-time employees. It is within walking distance of Irvine shopping, restaurants and entertainment, as well as campus academic and athletic activities and neighborhood recreational amenities. The community has three apartment communities, two condominium associations, town homes, paired homes, single family detached homes and a few custom homes. In all, University Hills has 240 apartments and 940 for-sale homes on over 200 acres.” (Irvine Campus Housing Authority, http://www.icha.uci.edu/). This comprehensive program makes it possible for faculty and staff to rent or buy homes near campus and assists UCI in recruiting faculty from prestigious schools like the University of Chicago, the University of Michigan at Ann Arbor, Yale, Harvard, NYU, and UCLA (Halper 2002).
other, comparable, schools in terms of salary relative to the regional cost of living, particularly at the assistant and associate levels.

**Partner Hires:** Women faculty have longer than average commutes, and their spouses have even longer commutes. Given that more women faculty partners work full-time, and more often have to live elsewhere for work, taking steps to increase spousal hires can reduce pressure on family life and help alleviate the disproportionate commuting pressure on female faculty. Although men faculty are less impacted by spousal career constraints than women faculty, those that are (i.e., those that live apart from their partners for career reasons) indicate high levels of unmet need for partner hiring. UMass recently adopted a partner hiring policy that begins to address this issue, by providing support from the provost’s office for partner hires, but the clear disparity between male and female faculty makes spousal/partner hires an important component of addressing problems created by long distance commuting. Research indicates that assisting the spouses of faculty to locate employment can significantly impact hiring and retention, particularly for minority faculty. Successful spousal hiring programs also increase a university’s ability to compete with other, similar schools (Wolf-Wendel et al. 2000; Eisenkraft 2004; Ferber 1997; Fleig-Palmer et al 2003).

**Improved Commuting Assistance Programs:** The University of Massachusetts-Amherst already offers a program to help alleviate commuter traffic on campus, but it could be strengthened. The UMass Rideshare Program assists university employees and off-campus students in forming carpools. Overall, the Rideshare Program is intended to reduce commuter traffic on campus, lower the cost of parking permits, lessen the environmental impact of auto traffic, and cut costs in car repair and maintenance.

The University also hosts the MassTraveler website, providing commuters up to the minute travel times for route 9 and 116, regional construction advisories, information about regional mass transit, and a bus tracker which tracks the current and scheduled locations of bus lines to and from campus. Taking steps to better advertise this excellent commuter resource is one fast and easy solution. The university could also become a member of MassRIDES, a statewide program designed to help travelers throughout the Commonwealth form or join a carpool as well as keeping travelers informed of public transportation options.

The University of Massachusetts-Amherst Transit also partners with the Pioneer Valley Transit authority (PVTA) to offer free and efficient bus service for all five-college students, staff, and faculty, shuttling more than 15,000 passengers a day between campus and the five-college area. For those living outside the UMass Transit service radius, however, public transportation availability and routes are limited. One way to ease commutes and encourage bus travel between Amherst and other towns would be to increase the coordination between the PVTA and the Franklin County Regional Transit Authority (FRTA). For example, the PVTA and FRTA buses both make stops in South Deerfield and Sunderland. However, if riders take a PVTA bus from campus to South Deerfield, they have to wait forty-five minutes for the FRTA bus to arrive and take them to Greenfield. The PVTA and FRTA could work together to decrease these

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12 UMass transit operates the PVTA service for the Five Colleges as well as for the towns of Amherst, Belchertown, South Deerfield, Granby, Hadley, Northampton, South Hadley, and Sunderland. http://www.umass.edu/transit/buses.html
connection times, increasing commuting options for passengers, and increasing ridership for the bus lines. UMass Amherst could also request that the FRTA, which provides the only public transportation to Amherst from Greenfield, Turners Falls, Millers Falls, and Montague, increase its frequency.\textsuperscript{13}

While Amherst is conveniently located on the Massachusetts rail system with a train station positioned in its downtown, there is only one north-bound and one south-bound train stopping in Amherst each day. Considering the current U.S. administration’s Infrastructure Revitalization project, as the key public educational center in Western Massachusetts, UMass is in a good position to advocate for increased public transportation infrastructure in light of the changing geographies of its faculty, staff and students. Particularly given our goals to achieve and maintain faculty and student diversity, making the University more accessible from urban centers like Holyoke, Springfield and Boston should be a priority.

**Conclusion**

One of the advantages of working at a University in a rural location is that housing and cost of living is generally lower than average. A second advantage is that rural University employees are often unencumbered by long and congested commutes and have the advantage of settling within the same communities in which they work. Although the University of Massachusetts, Amherst lacks the first advantage of a rural University setting due to its very expensive housing market, it is encouraging that UMass faculty do have shorter commutes than the average American. Yet, their partners have much longer commutes than the average American. Our data suggest that the relatively short commutes may also be a short-lived distinction as rising Amherst housing prices, even in the face of a collapsing housing market, and stagnating faculty salaries force newly-hired faculty to sacrifice proximity to the University for more affordable housing. It is also clear from the data that women faculty and their partners do not benefit from short commute times to the same extent as male faculty.

To restate our recommendations, we encourage UMass-Amherst to consider:

- Providing a Housing Assistance program to faculty and librarians, along the lines of mortgage assistance plans or forgivable loans.
- Increasing salaries, so that they are more competitive, and provide a better quality of living.
- Developing strong partner-hire programs, including a staff member in charge of helping faculty and librarian partners find employment within the university or community.
- Improving commuter assistance programs, to help develop less stressful commutes for faculty and librarians, and easier public transportation access from other cities and towns.

Both young assistant professors and women faculty, are central to the future of the University of Massachusetts and retaining these populations has long been a stated goal by the University Administration. Living at a distance from the University has greater

\textsuperscript{13} The FRTA’s direct line to Amherst currently only runs twice a day—once in the morning and once in the early afternoon.
consequences than just the inconvenience of longer times spent in the car. Individuals who live outside Amherst must often bear the added costs of poorer school systems for their children, increased gas and auto maintenance expenses, and stress from balancing geographically dispersed work and non-work lives. The University suffers from this state of affairs as well. Faculty commuters may potentially suffer from lost productivity and the University may experience lower faculty satisfaction and retention rates. As studies on the cost of longer commute and civic disengagement suggest, the increased commuting trend is also a lost opportunity for faculty-University life integration and enrichment. Faculty members and their families who live far from campus are unlikely to be as invested in the University community and campus life and our results raise the possibility that faculty who work further away from the University are less likely to view their work environment as supportive. Finally, as UMass shifts to a focus on environmentally friendly measures in its physical plant and campus transportation system, addressing the ever-widening radius of faculty housing and commuting times is both timely and necessary.
WORKS CITED


