

APPENDIX VIII

Study of the Integration of New Faculty at Cornell University (Draft)

Integration of New Faculty at Cornell University

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Overview

This report summarizes the results of a study designed to understand how new faculty become integrated into the university and their departments and to identify what Cornell could do to facilitate better integration. The project was motivated by a finding from an earlier survey of the Cornell faculty which found that overall women were less satisfied than men with being a faculty member and that this gender difference in job satisfaction was correlated with women faculty's greater feelings of isolation and lower sense of integration (Provost's Advisory Committee on Faculty Work Life 2006). By interviewing relatively new faculty, we hoped to learn how they formed their network of relationships on campus and to explore whether the process of becoming integrated differed for men and women.

In the 2007-08 academic year, 32 of the 40 second-year professors at Cornell participated in structured in-depth interviews designed to understand how they formed and used social networks. The interviews were conducted by a two-person team consisting of Professor Shelley Correll and Ph.D. candidate Susan Cabrera. Eight second year professors did not participate: two explicitly declined, three did not respond to our emails requesting an interview and three were excluded because they were in the same department as one of the interviewers. We also interviewed eight first year faculty and, due to some mistakes in the data provided to us, we also interviewed 2 people who had been at Cornell for 3 years and 1 who was at Cornell for 6 years.

Table 1 provides demographic information on those interviewed. As can be seen, approximately 40% of those interviewed were female, 75% were white, and 58% were born outside the United States. In terms of academic field, 37% were from the biological sciences and 13-18% were from engineering, the physical sciences, the social sciences or the humanities. In order to protect the identity of those interviewed, we do not provide any further breakdown by academic field or specify the gender or racial/ethnic composition by academic field.

Table 1. Demographic characteristics of faculty interviewed (N=43)

Variable	Description	Number	Percent of Total
Gender	Woman	17	39.5%
	Man	26	60.5%
Race	White	32	74.4%
	Non-White	11	25.6%
Country of Birth	United States	18	41.9%
	Outside of United States	25	58.1%
Academic Field	Engineering	8	18.6%
	Physical Sciences	6	14.0%
	Biological Sciences	16	37.2%
	Social Sciences	6	14.0%
	Humanities	7	16.3%
Years at Cornell	One	8	18.6%
	Two	32	74.4%
	Three	2	4.7%
	Six	1	2.3%

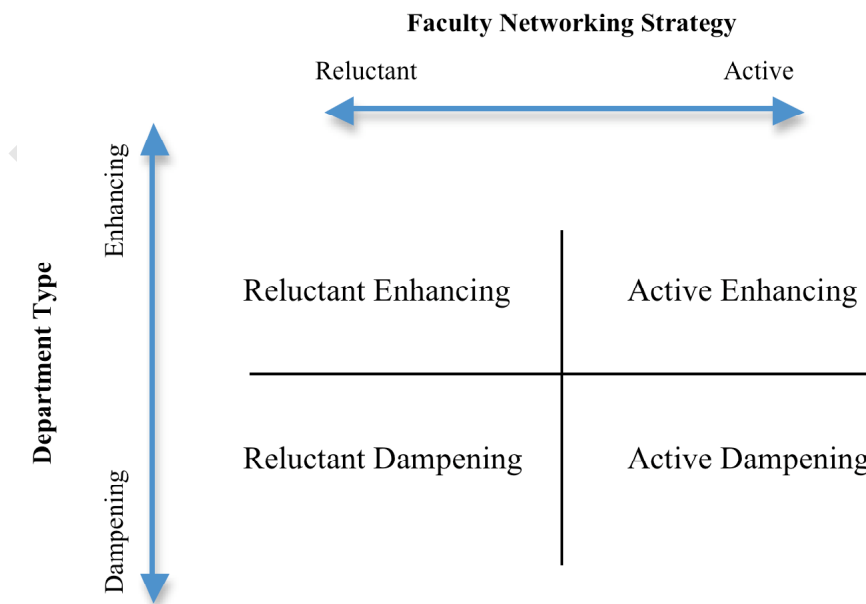
Faculty members were first asked about the content and formation of their *instrumental networks*, which included sub-networks that they rely on for information, advice, influence and research collaborations (see Appendix for a list of interview questions). For example, with respect to their information network, they were asked to identify the people they turn to for information about how to do the various aspects of their job, including teaching, research and general administrative matters. Second, we asked about the content and formation of their *expressive networks*, or those connections that provide emotional support and friendship. In particular, we were interested in whether new faculty relied on people at Cornell for information and support or whether they turned to people outside of Cornell. We were also interested in the overall amount of support that new faculty had and whether their departments were actively trying to provide that support. Third, we asked each faculty member to identify any important mentoring relationships, either with individuals at Cornell or outside of Cornell. In addition to seeking to understand the composition of faculty members' instrumental and expressive networks, we also explored how these important relationships were established, including the strategies – intentional or unintentional – that faculty members used to develop such contacts, and the ways in which they made use of the resources provided by their networks. Finally, we were concerned with whether the networks of men and women faculty differed and, if so, in what way. As mentioned above, a previous campus-wide survey of the faculty found that women faculty reported feeling less integrated into the Cornell community (Provost's Advisory Committee on Faculty Work Life 2006). We wondered whether these differences emerged early on in the careers of new faculty and if they were partially the result of differences in the way that male and female faculty's networks developed.

After consenting to be interviewed, participants were asked if we could audio record the interviews. All agreed. The interviews ranged in length from approximately 40 minutes to one hour and 20 minutes, with most lasting around 1 hour. Interviews were transcribed, and the transcripts were analyzed for common themes that emerged across the interviews. Analysis consisted of a close reading of each of the interviews by both members of the interview team to provide an initial list of themes. Then, using this list, a pair of research assistants separately analyzed all transcripts using the qualitative analysis software, Atlas ti, which allowed for a more systematic examination of the data. Both interviewers also independently recorded notes about the interview immediately following each interview.

Nine main themes emerged. Some themes, such as the importance of mentoring and collaboration, were closely aligned with the questions we asked. Others, such as the importance of physical location, emerged even though we did not explicitly ask about it. We describe each theme in detail below.

The central finding, however, can be summarized quite simply. While individuals differ in how active and intentional they are in creating their social networks, departments matter. Many departments actively facilitate the integration of new faculty, while others take a more hands-off approach. In the third section of this report, we develop a typology of faculty as either *active networkers* or *reluctant networkers* and departments as *enhancing* or *dampening* new faculty integration (see figure below).

Figure 1. Typology of departments and faculty members



Active networkers in enhancing departments are already well integrated by their second year at Cornell, whereas reluctant networkers in dampening departments experience considerable isolation. Reluctant networkers in enhancing departments are mostly well on their way to becoming integrated, which illustrates the power of the department to guide the integration of their new faculty. Active networkers in dampening departments are also establishing important network connections, but they often experience frustration with their departments. After describing the main themes that emerged from the interviews, we describe the typology in more detail. We then conclude with some recommendations for how the university and individual departments can better enhance the integration of new faculty.

Themes

In asking how faculty form their network of relationships, we were trying to understand how faculty meet other individuals and how they come to rely on them for information, support and the like. Nine mechanisms or themes emerged. We begin with a discussion of more intentional mechanisms, such as when departments assign mentors to new faculty or when faculty members seek out others for collaboration. We then turn to processes that are more spontaneous, such as when faculty members meet each other because their children are friends or because their offices happen to be close to each other.

1. Mentoring. We asked each faculty member whether there were any individuals that they consider mentors, either within Cornell or outside Cornell. We also asked them whether their department provided them with a formal mentor or advisory committee. One clear finding from their collective responses is that having at least one Cornell mentor, either formal or informal, is a crucial determinant of how integrated they were into their department and the university at large.

Faculty in departments with formal mentoring programs that were actively supported and participated in by senior faculty spoke very highly of the program's benefits. Even faculty members who were initially suspicious of the value of an assigned mentor had come to see the benefits of having a mentor by the time we spoke with them.

Formal mentoring

One female biological scientist described her formal mentor as her "oracle." She went on to say that this faculty member is in a very similar field, "so we can not only talk about science but we can work together. And she has sort of been tutoring me. So I have to say I feel very blessed." Interestingly, this senior faculty member was named by several faculty members in different departments as someone they turn to for advice.

Another faculty member (man, engineer) who has a four-person advisory committee assigned to him told us, "It's been good. And all those people have different expertise. So like X is probably one of our best teachers. So he's somebody that I'll occasionally ask teaching advice from. And then Y is just a great scientist ...so I go to him for research questions...."

In departments where mentors are assigned, the new faculty member is often involved in selecting his or her mentor. As one male biological scientist told us, “it was kind of a spontaneous process. So they were going to assign a few choices and let me choose. And I think X is my best choice...his scientific area is my area, so I picked him. He’s also very successful...”. He went on to say that his mentor has “been really helpful and we have regular meetings every week, so we discuss everything from science to business.” This same faculty member told us that he had other informal mentors in the department as well.

A female biological scientist described the way her chair helped her select a mentor even though she was resistant initially to having a mentor.

“Well so to be pretty honest, I’ve been pretty independent since I arrived...maybe because I didn’t need or I didn’t feel the need to ask for a lot of things. We have in this department this mentoring program. So we’re assigned a mentor to guide us through both on research and on personal development here at Cornell. So it’s a person we can feel free to go and bother them as much as we need about details or read our grants before they’re submitted.” She went on to add that after a month she had not chosen her mentors, so her chair came to her office to help her select a mentor and suggested that she choose people “that you feel free to talk with and you get along with, and you have a personal connection so you don’t feel intimidated or anything like that.” The chair further suggested that “it would be good for me to have someone that is really doing what I’m doing and can understand my grants and at the same time someone that has the background of what has been going on in the department historically and can help me figure out all those things from the beginning.” She ended up selecting two people with very different personalities, one who she describes as being more supportive on an emotional level and the other that she goes to a lot for other reasons.

In departments that have formal mentoring programs, senior faculty who are highly active in working with junior faculty are often selected as formal mentors. One male engineer told us, “I do have a few people that I go to for just about everything. X is one of the professors in the department who is just on absolutely every committee, is one of the nicest people I have ever met, and helpful and looks after young new faculty. And I go to her for just about every procedural question that isn’t answerable by the secretaries for example. So problems I have in class or...she’s actually officially my mentor. But even before she was made my mentor, I sought her out for everything. So she’s great. I go to her probably first for those departmental questions or logistical questions about classes.”

Having a formal mentoring program seems to be correlated with having a culture in which senior faculty actively seek to support new faculty and a strong, accessible and supportive department chair. Given this, it is somewhat difficult to identify which of these elements was most important in fostering integration for new professors; however, we suspect that all three – a supportive culture, strong chair and a formal mentoring program – work in concert together to create an environment in which young faculty are

more likely to be successful. Importantly, everyone we interviewed who has a formal mentor described the benefits of their mentoring relationship.

Informal mentoring

Among the new professors in departments that do not have formal mentoring programs, some benefited from an informal mentor, typically a more senior faculty member who took the initiative to support and guide his or her new colleague.

One faculty member (man, engineer) described his informal mentor, who is also a department chair, as serving as “a mentor for everyone.” He went on to say, “So I’ve been here a year and I think twice I’ve requested a meeting where... I basically just sort of sat down and said this is what I’m thinking on a number of issues... some of it teaching related, some of research related, most of it grant related, some of it personnel and staffing related and asked him for his thumbs up or down or whatever opinion on things. So I’ve done that a couple of times and he seems to like that because now he’s asked for that with everybody. So I initiated the first couple but I think now it will become a standard thing.”

Another faculty member (man, humanities), when asked if he had a mentor responded, “Not really except informally.” He then went on to describe a senior faculty member who had helped him organize his class and another that got him involved with a center on campus that connected him with other scholars in his area. Several others described having two or more people that they went to for advice about research strategies and the tenure process.

In sum, in departments with either active, accessible chairs or a group of supportive and welcoming senior faculty, informal mentors appeared to successfully fulfill the role carried out by the formal mentors in other departments.

No obvious mentor

Some new professors indicated that they did not have any mentors within Cornell—either formal or informal. Interestingly, those who lacked mentors often expressed doubts about the value of mentorship, at least for them personally.

Out of all the interviews that we conducted, two were especially disheartening because the faculty members were clearly attempting to become integrated into their departments but were receiving almost no support, formally or informally. Both women (a social scientist and a biological scientist) are active networkers themselves but are in departments that, by their description, have done little to foster their integration. In general, these professors seemed to have fewer network relationships both internal to their departments and externally across Cornell and to be less happy with their jobs. As one woman told us, “What I am disappointed in though is the faculty network here. It’s like there is no faculty network.” She went on: “It is like everybody simply operates in their own circle.” She added that she gets along well with her colleagues, but “people

pretty much stay within their hole and operate that way.” Both of these women were clearly seeking mentoring type relationships.

Others who lacked mentorship, when asked whether they thought they would benefit from a formal mentoring program, tended to indicate a high level of skepticism, in some instances suggesting that while others might benefit, *they personally* didn’t need a mentor.

One male social scientist told us that, “I’m not one of those people who actively seeks a guru, so I don’t necessarily find this appealing. I look at people, I see what they do and if I like it I try to emulate it. So beyond those people [people to whom he had gone for advice], it’s not that I have mentors.” He went on to say that, “None of my senior professors initiated that contact with me. But if I need support for something I will simply try to get it.”

Another male humanist told us that he really “didn’t feel the need for a mentor,” and that to formalize a mentoring relationship would have been “sort of awkward.” A female humanist concurred, stating that she felt the “need to form those relationships organically. And I trust that it will happen because it’s happened other places I’ve been for a few years.” However, she also described herself as intensely shy and, in our assessment, was not at all well integrated into her department.

Interestingly, some faculty seemed resistant to the label “mentor” more than to the idea of mentoring. For example, one male engineer told us that he is a problem solver and he often observes how others “are doing certain things that I need to do and copy them...But I wouldn’t say they’re ‘mentors.’ I wouldn’t go to them and say ‘I need help with this.’” He then immediately told us that he actually did turn to people for help, “but it’s in the context, ‘hey I need to write this grant and I need an example.’ So I can copy...a successful one so I can copy the format and stuff like this. But I don’t talk to them at length about what I should do and what I shouldn’t do because I already have a set of objectives in mind.”

We were often left with the impression that faculty who resisted the idea of mentoring did so for one of two reasons. Some saw needing a mentor as a sign of weakness. Ironically others, *because* they had no mentor and thus were generally less informed, less aware of expectations and norms, and less integrated, did not realize that their isolation and dissatisfaction was unusual.

2. Department Culture and the Role of the Department Chair. We did not specifically ask people about their department chairs/heads; however, chairs were frequently mentioned by the people we interviewed as someone they would turn to for information and support, especially in understanding the tenure process. In other instances, more senior faculty members who are not department chairs/heads, were described as being highly proactive in helping integrate new faculty members. We also did not ask specific questions about department culture, yet we frequently left the interviews with a sense of the extent to which the department is proactive in integrating new faculty. In proactive

departments, chairs and other more senior faculty drop by to check in with new faculty and offer them advice and guidance. In less proactive departments, we were often told that senior faculty were there if the new faculty member had questions, but the new faculty member had to take the lead in seeking help.

One male social scientist described his chair as taking “it upon himself to be as supportive as possible throughout that [the tenure] process.” He later noted that his chair would just “pop by and ask” how things are going. Likewise, a male engineer in his first year at Cornell said that his chair and other faculty members, “come to my door and they offer help.” This faculty member repeatedly described his chair in glowing terms. And, a male biological scientist told us that his chair explicitly told him that his chair wanted him to succeed “because his success depends on my success.” He gave an example of the chair’s help by describing a recent meeting where the chair discussed when in the tenure process it might be most helpful for the faculty member to give a department seminar.

Another example of a proactive department chair/head came from a woman scientist who said that her chair “has been very helpful to me in terms of putting in award applications and funding formally within the University for that.” She went on to say that the department head was not in her field but had been able to get other faculty members to “effectively write the letters of reference for me and things like that.”

Another area where chairs were proactive in shaping the experience of junior faculty is in helping them shape the direction of their research. As one male engineer describes, “the other key area that I would say I’ve gotten a lot of help on is sort of defining areas that would be good to work in, grant writing strategies, that kind of stuff. So a lot of that has blossomed into collaborations.” Finally, one male biological scientist said his whole department is very supportive, “they’re always trying to find solutions for me.”

Other faculty members described their chair and colleagues as someone they would turn to, but the relationship was less proactive, relying instead on the new faculty member to seek out help. One woman biological scientist explained “I guess I have a feeling that they want me to succeed. So it’s not like it’s negative or so. But also it’s...I have to do it on my own. So it’s not like someone is babysitting me all the time.” She later added, that in the process of seeking out information she “goes in circles until it gets to the right person.” Another woman in the biological sciences says she would have to “do the work” if she needed advice and then added that people have not reached out to even let her know if it is okay to ask for advice. A woman in the humanities summarized her experience as “people aren’t *denying* me support, but...” (emphasis hers).

Another faculty member (man, humanities) told us that his chair asked him if he would like a mentor, and that he told the chair “I’ll be fine.” The chair accepted this decision. In more proactive departments, we also encountered new faculty who felt that they did not need a mentor, but in these departments, chairs often gently suggested why the new professor might like a mentor and even gave advice for how to select mentors.

3. Collaboration. We asked direct questions of each interview subject about research collaboration, so it is not surprising that it emerged as a theme. We found that

establishing research collaborations within Cornell, both within department and across departments was very important in helping faculty to integrate both professionally and personally. Professional, research-based collaborations often developed into more personal expressive relationships providing support, friendship, and mentoring. In contrast, faculty that primarily maintained research collaborations with researchers outside Cornell were less integrated both professionally and personally. Finally, some of the faculty we interviewed did not engage in collaboration either within or outside of Cornell, generally for one of three reasons. First, in some fields, particularly in the humanities, collaboration is simply not normative. Second, some faculty who were hired into departments in an effort to extend the research focus and reach of the department in a more interdisciplinary or theoretical direction have found it difficult to establish collaborations within their department and have not received the networking support to establish projects with other Cornell departments.

For example, one professor (woman, physical scientist) explained, “People are very supportive, and I like people a lot. But as I said, my research is quite different. Well, the topic is not different but the method is quite different, that’s why I feel kind of isolated. But I don’t want to say that they’re not supportive. I’m quite sure that they would support me if necessary.”

Third, some faculty noted that while it is normative to engage in collaboration generally in the field, it was not considered acceptable within the norms of their particular Cornell department. For example, one woman, social scientist noted that while “typically in my area it is encouraged to work with other people, at the moment—although this may be changing...it is very clearly stated . . . that the bulk of our work by the time that we go up for tenure should be sole author. Which I have a problem with, right?” Faculty who failed to collaborate, in particular as a result of the latter two reasons appeared to feel scientifically isolated. For example, one (male, physical scientist) referred to Cornell as “intellectually, a little lonely,” later stating that “one of the things I’d like to have is an intellectual community here of people that I can talk to directly about what I’m doing. And it would be in the form of students and postdocs and the faculty... It’s a struggle.” Further, given that research relationships were an important avenue to establishing more personal relationships for many new professors, the faculty that felt scientifically isolated also appeared to be less integrated in other ways.

4. Interdisciplinarity. Somewhat related to the topic of collaboration, the theme of interdisciplinarity also emerged as important in both positive and negative ways. First, a substantial number of new professors (10 out of the 43 interviewed) mentioned the interdisciplinary nature of their work as a potential source of network contacts. A couple even volunteered that Cornell’s reputation for interdisciplinary work was a clear factor in their decisions to join the faculty. As one faculty member (man, biological sciences) described it, the interdisciplinary nature of his work gives him “lots of tentacles, we’re sort of reaching out all over campus.” Another told us that during his interview, he met relevant people from across campus, making it easy for him to connect with people once he arrived.

The male engineer who mentioned earlier that his chair helped him define his research areas, which led to numerous interdisciplinary collaborations at Cornell, describes the interdisciplinary culture of Cornell as “something unique” and said that at his graduate institution “collaborating was like a sign of weakness. So nobody would do it.” He went on to say, “One of the main reasons I came [to Cornell] is that people collaborated because it was fun and interesting to do, rather than only out of necessity.”

A female scientist also touted the interdisciplinary culture as important for helping carry her work in new directions. “But in terms of new fields. I can see that sort of developing here at Cornell in a sense that what I’ve found...and again it’s another reason why I sort of came here ...People put a great sort of strength in the fact that people at Cornell once developed work between departments and between fields. And like I said I can talk to people who are outside my direct field... And that has opened up networks and opportunities to broaden my work. And people have been very supportive of that.”

Another faculty member (man, biological sciences) explained that since his academic training is slightly different than the department in which he is located, the interdisciplinary culture of Cornell is very important to him. He is an example of an active networker, seeking out seminars and talks around the campus to foster interdisciplinary connections.

The interdisciplinary tradition of Cornell is clearly a selling point for faculty considering joining Cornell; thus, the university may want to pay special attention to delivering on its potential in this area.

Realizing this potential, however, requires departments to be proactive, making sure that junior faculty members are effectively finding potential collaborators in other departments. A number of professors explained that their area of research represented a somewhat new direction for the department, for example, adding a theorist to a primarily experimental department or hiring a scientist studying a new organism or using a new scientific method. For the faculty hired into these positions, the experience of attempting to establish a network at Cornell seemed to be either distinctly positive or distinctly negative. Those faculty members who were actively supported by their departments in finding areas of scientific commonality with individuals both within the department and in other Cornell departments appeared to be among the most well integrated of their peers, both professionally and personally. In these instances, the potential for interdisciplinary scientific collaboration was parlayed into broad and strong network relationships across campus that in many instances had further developed into informal mentoring opportunities and friendships.

In stark contrast, those interdisciplinary hires who were not provided with help or guidance in how to establish research associations within their department or across Cornell were among the least well integrated of the individuals we interviewed. They referred to themselves as feeling “isolated” “frustrated” and “lonely”.

For example, one female biological scientist responded to the question about whether researchers typically collaborate in their field by saying, “We should, we try to, and we do. It’s very dependent on whether you have access to somebody with your interests. And that’s I think the hardest. That’s the thing I’m most frustrated about in, you know, in the position that I’m in.” Another (woman, biological scientist) whose work was a bit atypical for her department suspected that there were people in other departments who would be good collaborators or colleagues but that she felt “out of the loop.” She added that she has tried, but that she does not hear about seminars or speakers in time to attend. She added that it would be helpful to have some sort of “proper introduction” when a new faculty member arrives to be sure that they are connected to those across campus who share their research interests. Instead, she told us, “I arrived and that was it. I’m here on this floor trying to make connections.”

Further, this feeling of isolation was reported irrespective of the level of research funds or lab space provided (which in many cases was very generous) or the networking skills of the individual faculty members. In some instances, departments had clearly reached beyond their usual focus or specialization and into new methodological or substantive areas in order to increase the racial or gender diversity of the department. While laudable, we heard from several women and/or faculty of color that their research was considerably different from most of their colleagues and that this difference caused some difficulties in becoming integrated and in meeting standards for tenure. For example, one interviewee told us that the department expected assistant professors to graduate one Ph.D. student by the time they came up for tenure, but the graduate students who came to the program came because of the strengths of the department in certain areas, and these areas were far from the research area of this faculty member. Others described the expectation that they establish collaborations at Cornell, which was difficult given the distance between their own research and that of others in the department. What these experiences suggest is that when departments hire a faculty member that extends the substantive or methodological reach of the department, they need to also develop a plan for helping that faculty member be successful.

5. Physical location. Even though we did not ask, 33 of the 43 interviewees made some reference to their physical location in their department. In many cases, physical location influenced whom they turned to for information or support. For example, one male social scientist told us:

“I would ask people like X and Y, again doing it almost by proximity because these are the people I see when I go to the restroom. And so they are always here, so it’s very easy.”

Another told us that he has gotten more support than other faculty from a department administrator because “she’s right next door to me. So by default, I’ve gotten more...I mean this is more work related, but if it’s 5 minutes before class and I have to make copies, X would chip in and help me.”

A male humanist told us that if there is “an open door right there, I walk through that quite a bit... To some extent it’s a function of the neighbor.”

Finally, one male social scientist told us that he relied on his department chair for advice, but also “any other faculty member who is nearby.” He then went on to describe the layout of the offices in his department and pointing out which faculty members were nearby.

In fact, in response to our questions, participants would often point toward the office next door or across the hall. Of course, it is not actually surprising that people would seek help or advice from those closer by, but it does suggest that departments might consider assigning offices so that new faculty are physically closer to faculty who might serve as mentors or guides. Being centrally located is advantageous.

For example, one reluctant networker, a male biological scientist, told us that, because his office was located at the top of the stairs, “a lot of times people will come by the door and I’ll just wave them in,” which gave him the opportunity to ask “about funding and how I’m finding the grants and things like that.” He considered this to be very helpful, saying about his department, “I’ve never worked any place like this.”

Location can also dampen the integration of new faculty. One active networker, a woman social scientist, described herself as “very isolated” and attributed part of that isolation to the location of her office:

“I’m in an office that’s back in an office suite. But there’s not a lot of walking around the hall and meeting at the water cooler. So I’m in a cave basically, which has, you know, advantages: I don’t get in trouble, you know, by getting on the wrong side of people. But on the other hand I don’t know anybody.”

Another (woman, biological scientist) described her building as “not really friendly. And you can see this floor is very empty. So you really have to make an effort to go to talk. And everybody is very busy.” She later noted that she is also very busy, so that if she does not meet anyone in the hallway, it is very difficult to get to know people.

Another faculty member (woman, humanities) described her location in a way that clearly illustrates how location can lead to a feeling of isolation:

“I’m down this dark hallway, nobody knows I’m here, nobody knows if I actually made my classes, nobody has the slightest idea what I’m doing with my time.”

6. Involvement in Departmental Committee Work. Although we did not ask any specific question about the topic, several professors made some reference to their department’s requirements regarding participation on departmental committees. Not surprisingly, some expressed relief and pleasure that departmental requirements were very limited in this regard. For example, a women social scientist described her department’s attitude toward committee work for junior faculty as follows: “They protect us. And then maybe in the

5th or 6th year they'll throw us to the faculty senate. But they put us in really gradually because they want us to just to do research.”

In contrast, others indicated that they already had been involved in important and time-consuming departmental committees. Somewhat to our surprise, we found that those new faculty members who were more involved in departmental committee work, in particular those on faculty search and graduate admission committees, were generally better integrated within their departments, with greater access to information, and they appeared to have a better understanding of department hierarchy, politics, and norms.

For example, one person (male, biological scientist) told us that his membership on a faculty search committee led others in the department to see him as an important source of valuable information. He went on to say that because of his involvement he was “more exposed to the politics” of his department than were his peers at other institutions. He described his situation as being “tied in at an earlier stage than I should,” yet he seemed well integrated into the department and knowledgeable about department culture, goals and priorities.

Similarly, a female humanist felt that she was more “in the know” than her peers because she had served on a faculty search committee. She described the search as contentious and felt that, through her involvement, she had learned to understand the politics of her department and how one might go about exerting influence. Another faculty member (woman, engineer) said that “being on the search committee has really given me access to information about how many people we’re hiring, and what the long-term department goals are.”

Others offered comments about committee involvement when we asked them to provide examples of a time when they had been able to influence the outcome of an important decision. A male biological scientist and a male social scientist both told us that through their involvement with graduate admissions, they had been able to influence the recruitment of graduate students in their own research areas. Another faculty member told us that he explicitly decided to participate in committee work as a strategy for meeting people.

We conclude that limited committee involvement, especially on faculty search and graduate admission committees, can be a valuable tool for integrating new faculty. While these committees are time-consuming, they also provide new faculty with insight into department goals and culture and, in the case of graduate admissions, allow new faculty to influence decisions in ways that are potentially valuable for their own research.

7. Junior Faculty Peer Network. Although we did not ask a direct question about the importance of having a peer network of other junior faculty, a substantial number of our interview subjects identified such a group as a significant positive factor in helping them to become integrated into Cornell. These peers, which included faculty members recruited in their department at the same time or within a few years of the interview

subjects, were relied upon as resources for information, advice, support, friendship and in some instances, research collaboration opportunities.

For example, as one professor (man, engineer) explained, “Our department is kind of bimodal. We sort of have the faculty that are looking at retirement pretty closely and then we have the people that have been here no more than five or six years. So there’s been kind of a young faculty group that’s banded together. So we’ve been getting together regularly for parties and doing things with our families and stuff. So it’s slightly contrite, but we all do really like each other...I think one reason all of us find that important is because we’re going to have to come up with the vision for where this department goes in five years. And the more all of us know each other’s perspectives the more we can think about how to actually do it.”

References to having these peer networks were universally positive. However, it was clear that due to different hiring patterns of various departments, not all faculty members had access to such relationships. In fact, several faculty members mentioned the lack of peers within their department as a detriment to their experience at Cornell thus far. One (man, biological scientist) said, “The department is very old. I was the first hire after X, which was seven years ago. So the structure is very old and it’s pretty much a buddy system on the senior level.”

8. Having Children. Of the 43 faculty members that we interviewed, 19 reported having children and most of these made some reference to how having children had influenced the development of their social networks since arriving at Cornell. In general, the impact of having children upon the quality and composition of new faculty’s social networks appeared to be either very positive or very negative. In the first instance, a number of faculty members mentioned that they had made important contacts through their children’s friendship networks.

For example, one person (man, humanities) describes how he and his wife got to be close to a senior faculty member on campus and now he feels comfortable going to this person for advice. “She has children our daughter’s age.” He went on to say, “She’s much more active in University politics than I am. She’s somebody I would feel...even if I don’t interact much with her, she’s a good person that I would feel comfortable turning to with problems.”

But then, this same faculty member described the way children can limit his ability to become well integrated, “I mean my wife...we have a small child, and we have time pressures that are making me interact less with people outside my immediate department.”

While many new faculty members described ways that their children helped them become integrated, nearly an equal number of professors attributed their lack of social interaction and friendships to having children. One faculty member (man, biological scientist) explained that he didn’t socialize with his department “not because I’m against it. I just want to see my wife and kids.”

Similarly, a woman biological scientist told us that she has a small child, “so there isn’t a lot that I do besides family things. So outside of work that network involves a lot of other families that are in the same day care and organized functions for the kids.” She went on to describe the problems she had finding infant care and noted the burden this places on women faculty since faculty “can’t stay out for 18 months.”

9. Gender Salience. For the women we interviewed, gender seemed to be quite salient to their ability to establish a network at Cornell and become integrated into their department and the university, while for men, gender seemed to be less of an issue. We asked no specific questions about gender, yet 11 of the 17 women that we interviewed mentioned gender in some context. By contrast, only 5 of the 26 men we spoke with mentioned gender and most of those did so when talking about issues facing women faculty. The comments offered by women included several explicit references to the importance of having a community of women colleagues and friends with whom to discuss both general and gender-related issues. They also made a number of references to the availability (or lack thereof) of women mentors and role models.

For example, when we asked one woman (biological scientist) about people that she considers a guide or sponsor, she mentioned a senior woman in her department. When we asked her why she relied on this senior colleague, she responded: “Partly because she’s a woman.” She went on to say that this colleague “would tend to know also women’s issues and other things that are going on, in addition to everything else, besides the fact that she works in a similar area and can scientifically advise too. So that’s why she’s helped me with grants and stuff.” She was careful to add that she did not rely solely on women: “And I don’t particularly sort of gravitate specifically towards women, I could work with anyone. It just happens to be that I am in a situation where I do have a young child. So there are a lot of issues that are affecting me as a woman that aren’t scientifically related necessarily. So I would try to seek out someone who has successfully done this with a family.”

Another faculty member (woman, humanities) in a department with many senior women observed that most of the people she relied on were senior women faculty, where her junior male colleagues seemed to rely most on senior men faculty. As she put it, “I think it’s partially because the older male faculty feel more comfortable with him [a junior male colleague] and the older women faculty feel more comfortable with me. And I think that that’s the way it filtered down.”

Many women faculty are in departments where there are few senior women. Several of these described the importance of social events for women, where they can meet other women faculty. For example, one woman from the physical sciences told us that she appreciated a recent happy hour for women faculty: “I mean the happy hour gave an opportunity to talk with other women. It’s not necessarily that I have pressing issues, but it did open up an avenue that I don’t have here.” Another woman told us that she attended lunches for women faculty as a way of becoming more integrated into Cornell and that hearing other women talk about issues in their own departments helped her understand

some things going on in her own department. She commented that it was just “great for me to see” other women faculty.

A network typology

As mentioned in the overview of this report, the degree of integration, as well as the quality and size of our interview subjects’ social networks, were influenced by both the subjects’ individual characteristics and by the department structure in which they work. Along the individual dimension, faculty members varied in terms of whether they were a more *active networker* or a more *reluctant networker*, while along the structural dimension, departments were either seen as *enhancing* or *dampening* new faculty integration (see Figure 1). Below, we expand upon what characteristics make an individual either an active or reluctant networker, and what characteristics make a department either an enhancing or dampening one. We then provide some examples to illustrate the relative progress toward integration of faculty lying in each of the four quadrants.

What constitutes an active versus reluctant networker?

Across our interview subjects, several qualities seemed to characterize active networkers. Most important were their overall attitudes toward networks; these individuals explicitly acknowledged the importance of having a network, could articulate its benefits, viewed networking as a “good thing”, and were generally at least somewhat strategic in building relationships. They could provide examples of times where they relied on people in their network for introductions, for information, research guidance and advice, and they indicated comfort at drawing upon this help when necessary (although they frequently acknowledged that relationships and help must be reciprocal). In addition to having generally positive attitudes toward networks, these individuals also often showed a propensity for collaboration, and were among the more socially facile of the faculty members that we interviewed (although they were not necessarily extroverted).

In contrast, reluctant networkers tended to view networking with suspicion and distaste. When asked if they have a strategy for networking, or if they use their networks, these individuals tended to respond with a quick and emphatic “no!” Consistent with these attitudes, these reluctant networkers also expressed discomfort with actively cultivating new relationships, drawing upon existing contacts for help and introductions, and often explicitly stated that they didn’t like networking and didn’t spend much time thinking about it.

What constitutes an enhancing versus dampening department?

With respect to our second dimension—department structure—we identified a number of qualities and practices that characterized departments that enhanced new faculty integration and were lacking in departments that dampened integration. Although we did not ask any explicit questions about department chairpersons, it was clear that the most enhancing departments had a strong, active chair that was thoughtful and intentional

about supporting and integrating new faculty. It appeared that the chair often set the tone for the department such that in enhancing departments, senior faculty were likely to proactively demonstrate support for new professors, were more likely to have active and institutionalized formal mentoring programs, and new faculty were more likely to be given the opportunity to participate on influential committees. Further, new faculty members tended to perceive the culture of such departments as open, democratic, and supportive, providing them with both a voice and with guidance on how to succeed. Enhancing departments also seemed to have given thought to the physical location of new faculty offices and lab space to prevent isolation and enable interaction between new and old professors. Finally, we found that some of the most enhancing departments were those in interdisciplinary fields where new faculty had the opportunity to interact with professors in multiple departments across Cornell. However, in order to capitalize upon these interdisciplinary opportunities, it was crucial that the department provide support by facilitating introductions. In addition to some of the more strategic and intentional practices already mentioned, we also found that new faculty integration was enhanced by the presence of other junior/peer faculty members, and the availability of other homophilous (i.e. same sex, race or country) faculty relationships.

How have new faculty members of each type fared?

Not surprisingly, we found that active networkers in enhancing departments were already well integrated by their second year at Cornell. In stark contrast, those faculty classified as reluctant networkers in dampening departments were experiencing considerable isolation. For example, one professor (man, physical scientist) expressed frustration with his continued reliance on his network outside Cornell. He admitted that he is “slow to make new connections” and “not good at that kind of stuff (networking)”. However, it was clear that the department structure in which he was situated was not helping him to overcome his individual limitations. For example, he noted that while there was a formal mentoring program, “the mentors don’t quite know what they’re supposed to do.” Further, he professed to have “no idea” what the unwritten rules of his department were, and mentioned that he had no one to collaborate with at Cornell. Not surprisingly, he said he feels less integrated than others noting that “if I compare my colleague over in X Hall...he does all this cool stuff with other people in different departments and all that stuff. And I basically only know this building...so I tend to collaborate more vertically with people outside of Cornell.”

More positive was our finding that reluctant networkers situated in enhancing departments were making good progress toward becoming integrated. Although these individuals tended to explicitly disavow either the capability or inclination to engage in networking, it was evident that they were nonetheless successfully establishing themselves in the Cornell community on both a professional and personal level. For example, one reluctant networker (man, engineer) appeared to have given little conscious thought to networking, yet still seemed quite happy and comfortable at Cornell. In partial explanation, he noted that a number of senior faculty in his group would just “stick their head in usually as they’re walking by (Note: he was in a very centrally located office) and see how it’s going...They’re coming to me and even asking about funding and how I’m

finding the grants and things like that...[it is] a great environment...I've never worked any place like this." These comments, as well as similar statements by other reluctant networkers in enhancing departments illustrates the power of an intentional and supportive department to facilitate the integration of their new faculty members.

Finally, we found that new faculty members classified into the last group—active networkers in dampening departments—were attempting to make progress in establishing important network connections at Cornell. However, they were typically doing this without the help of, or even in spite of their departments. Not surprisingly, these professors often expressed frustration with their departments. For example, one professor (woman, social scientist) told us “This is the first place that I’ve live or worked where I’m completely adrift. In the past I’ve always...I’m really good at it. It takes a while to set it up. I’m not one of those instant networkers...But I’ve always, always set up a really strong network or grapevine, however you want to put it...I’ve always been good at that and I’m just completely adrift here. And it’s not comfortable.” Another faculty member (woman, biological scientist) who was clearly an active networker with a broad and deep network outside of Cornell expressed frustration and surprise with the lack of support and welcome she had received here. She explained that, “We pretty much stay within our own thing. And again I’m a busy body and I just like talking to people, so whatever contacts I’ve made here is...basically, I’ve had to do it.” When asked about her strategy to networking at Cornell, she answered, “Well, so I don’t even understand how you can network in a place that doesn’t want to network.” We often left the interviews with professors in this quadrant (active networker in dampening department) worried about their future at Cornell.

Recommendations for better integrating new faculty

We draw on the themes that emerged from our interviews to make a few recommendations for how departments and colleges can foster the integration of new faculty.

1. Create an advisory committee for each new faculty member.

New faculty members are better integrated when they are well connected to senior faculty who can provide them with information and advise them when making decisions. While these relationships can emerge naturally, often they do not. Based on the positive responses of faculty members who have official mentors or advisory committees, we recommend that, *as a minimum*, all assistant professors have at least one official mentor. This person should be chosen with input from the faculty member and guidance from the department chair. Department chairs might provide suggestions of senior faculty that they think would be good mentors and discuss these suggestions with the new faculty member. We recommend that department chairs meet with new faculty halfway through the first semester to discuss their choice of mentor. This gives new faculty time to get to know people in the department before selecting a mentor.

Research on mentoring consistently points to the need for a “circle of mentors,” a phrase that captures the idea that people benefit from having more than one mentor. Based on this research and on our discussion with faculty who have a mentoring committee, we conclude that an advisory committee of 3-4 members would be superior to having a single mentor. One arrangement on campus that appears to work well consists of a committee of 3, which includes one person who works in closely related research area to that of the assistant professor, a second who could provide more general support and a third from outside the department. The term “advisory committee” is preferred over “mentoring committee,” we feel, because of the negative connotations some have to “mentoring,” viewing it as a sign of weakness.

2. Be proactive in checking in.

As mentioned above, some departments create an environment that enhances the integration of new faculty. One key element of an enhancing department is the presence of proactive senior faculty who drop by to check on the new professor, set up meetings with him or her and create an environment that is open to asking for help.

3. Be thoughtful in assigning offices.

It is clear from our interviews that physical location matters. Faculty who were centrally located had a much easier time getting help when they needed it and were dropped in on more frequently than those who were more physically isolated. When possible, we recommend assigning new faculty members to offices that put them in close access to their mentor(s) and other junior faculty.

4. Selectively assign junior faculty to important committees.

Junior faculty in our sample benefited from some involvement in committees such as faculty search and graduate admissions. While these committees can be time-consuming, they are also committees that provide access to information about department priorities, politics and procedures. In addition, they allow the new faculty member to have some influence on important department matters. While understanding the importance of protecting assistant professors from too much service, we believe that occasional involvement in important decision-making committees can foster integration.

5. Foster the creation of a junior peer network.

The junior faculty in our sample who had an extensive peer network clearly benefited from it. They were happier in their departments and relied on their peers for advice about how to navigate their careers. Some departments are simply too small to have peer networks of junior faculty within the department. Therefore, we recommend that colleges help facilitate peer networks across departments. This could be done through hosting lunch discussion on topics that are relevant to assistant professors (e.g. “preparing for your third year review”) or through social events. The NSF ADVANCE Center at Cornell could be consulted for a recommendation of suggested topics.

At the conclusion of our interviews, we asked the professors interviewed if they had any suggestions for how Cornell might help them become better integrated. While people suggested various events to bring people together, overwhelmingly people seemed to prefer events that were: 1) smaller and 2) focused on either common research areas or common interests. What they described as less appealing are large happy hour events where it was difficult to actually meet people.

6. Help establish interdisciplinary connections.

One of the clear strengths of Cornell is its strong interdisciplinary culture. For many faculty members in interdisciplinary areas, their work served as natural “tentacles” connecting them to others across campus. Often these connections were established during the interview process. Other times, department chairs were proactive in helping the new faculty member meet those in closely related fields. However, for some professors these connections were not always in place. In particular, we met several faculty members who had been hired either to broaden the intellectual reach of the department or as part of a larger interdisciplinary initiative, but who felt as if they were all alone. Because their research was different from most others in their department, they had not developed intradepartment collaborations and, in some instances, had a difficult time finding graduate students with whom to work. Yet, they also had not met faculty in related departments that could be a potential source of collaboration, information, advice or connection to a research community. We recommend that departments develop a plan for introducing each new faculty member to those in related fields. This is especially important when the new faculty member’s research is naturally interdisciplinary or when it is unique for the department. Several professors described how meetings with those outside their department during the interview process helped them quickly become integrated once they arrived at Cornell. Thus, departments could use the interview process as a way of jump-starting the integration process.

7. For women faculty: help connect to other women faculty.

Sixty-five percent of the women faculty we interviewed raised issues of gender even though we did not ask any questions about gender. Being interviewed by two women may have inflated the frequency with which gender was mentioned, but the women we spoke with were very articulate about the issues they raised, suggesting they had given the issues thought before we arrived to interview them. Many of these women who brought up gender issues are in departments where there are very few women. A couple explicitly mentioned events such as the College of Arts and Sciences women’s luncheons as valuable for providing them with a space to talk with other women faculty about issues in their own departments. Several colleges already sponsor women’s networking events, and the NSF ADVANCE center at Cornell is actively developing programming for women at all career stages. We recommend that department chairs and mentors help make new women faculty aware of these opportunities.

Appendix

Social Networks Interview Questions

Thank you for agreeing to participate in our study. As you may already know, we are interviewing both first year and fourth year tenure-track professors across Cornell in an effort to better understand the composition of these individuals' social networks, as well as to learn about how each of you form and use these networks. While we are very interested in getting a current snapshot, we are also interested in how networks change over time. As such, we hope to interview each participant once a year for the next five years with the broad goals of identifying organizational level factors which contribute to how networks develop, understanding the different composition of networks and networking strategies used by professors at Cornell, and evaluating the potential implications of these differences.

Throughout the interview, we encourage you to volunteer any experiences or thoughts that you think are relevant, even if we don't specifically ask about them. In addition, as we ask about specific types of relationships, feel free to name up to three individuals in each category. At the end of the interview, we are going to ask you to provide some demographic information about yourself and the people that you name, as well as some background information on how you know them etc. so you don't need to provide that as we talk, unless it you feel its necessary to help us understand something.

Instrumental Networks

Information

Just to give us a sense of what you are currently doing...are you teaching this semester? Have you started working with grad students yet?

- 1) Who are your most important sources of work-related information? (For example, information about what is going on in your department, information about opportunities, about how to get something accomplished, etc.) We will ask specifically about your network of research contacts later, so if you could focus on other types of information, that would be great. For example, if you want to get something done, like getting a course approved or apply for a grant, who would you go to?
- 2) Do you think others consider you to be a valuable source of information?
- 3) Who are the individuals that would name you as one of their most important sources of work-related information?
- 4) Relative to your peers, do you generally feel like you are "in the know"? In other words, do you feel like you have the same, better or worse access to important information? Can you put that on a scale of 1 to 5, with 5 being clearly more in the

know as your peers, 3 being the same as your peers and 1 being much less than your peers? Can you tell me about a specific instance where you felt this way?

Advice

- 5) Who are your most important sources of professional advice - those individuals that you talk to if you have a work-related problem or when you need help in making a decision? (Ibarra 1992) GIVE EXAMPLE – how to deal with a difficult colleague, how to approach getting tenure letters etc.
- 6) Can you tell me about a time when you sought advice in solving a professional problem or decision?
- 7) Who are the individuals that would name you as one of their most important sources of professional advice?

Influence

- 8) Who are the individuals that you talk to when you want to affect the outcome of an important decision? (Ibarra 1992)
- 9) Relative to your peers, do you feel like you have the same, more or less ability to influence others? On our scale of 1 to 5? Can you give me an example of where you attempted to influence someone and either succeeded or failed?

Research

- 10) Do researchers often collaborate in your field? How many authors are there typically on a single published paper?
- 11) Who are your most important and frequent research collaborators and/or co-authors?
- 12) Relative to your colleagues, do you feel like you are the same, more or less likely to collaborate on research projects, grant applications or papers? Are you usually the initiator of the collaboration, or responding to someone else's invitation? Can you give me an example?
- 13) Relative to your peers, do you think you have comparable, better or worse relationships with the graduate research assistants in your department? Can you quantify this on our scale of 1 to 5? Who are the students that you work with on research the most?
- 14) Relative to your peers, do you think you have the same, more or less access to university resources, such as research funds, graduate students, staff, lab or office space, and computing? Again, can you quantify this on our scale of 1 to 5?

Support

In looking at individuals' networks, it is common to differentiate between instrumental networks along the lines of the topics we've been discussing (information, influence,

research – i.e. people you go to when you need help setting up a research paper) and expressive networks (those people that provide support and friendship – i.e. people you go to when you are angry and need to vent).

15) Now we are going to turn more to discussing these expressive networks, but first, let me ask: as I've described them, would you say that your instrumental and expressive networks are made up of the same people or more different people? Can you estimate the degree of overlap?

16) Who are the individuals that “you know you can count on, whom you view as allies, who are dependable in times of crisis”? (Ibarra 1992)

17) Relative to your peers, do you feel like you have the same, more or less support within your department? Can you quantify this on our scale of 1 to 5? Can you give me an example?

18) Who are the individuals that would name you as one of their most important sources of support?

19) Relative to your peers, to what degree (the same, more or less so) do you think that you are seen as someone that others look to for support?

Friendship

20) Who are your good friends, people that you socialize with outside of work? Are any of them professional colleagues?

Politics/Access

21) Would you say that there are “unwritten rules” about how a professor is supposed to behave within your department/Cornell?

22) Relative to your peers, how well do you think you can navigate the unwritten rules concerning how one is expected to conduct oneself as a faculty member? Where would you place yourself on a scale of 1 to 5, with 5 being much better than your peers, 3 being the same as your peers and 1 being much worse than your peers?

23) Relative to your peers, do you think you are stressed out by departmental or campus politics the same, more, or less than others? On our scale of 1 to 5?

24) Are there any individuals that you consider to be a “sponsor” or “guide” for you as you navigate these politics? If so, who are they?

Mentors/Mentees

25) Are there any individuals that you consider to be mentors? Who are they?

26) Are there any individuals that consider you to be a mentee? Who are they?

Strategies for Creating and Using Your Network

- 27) Do you have a strategy or approach to networking? If so, what is it?
- 28) Can you give me an example of a time that you consciously “networked” with another person?
- 29) Can you name the person with whom you most recently formed an important relationship? How did that relationship come about?
- 30) What percentage of your important relationships (those named above) came through an introduction versus through direct contact with you? POSSIBLY EXPLAIN AND ASK DIRECTLY ABOUT SPONSORSHIP
- 31) Who are the individuals that most frequently introduce you to other people? Have those introductions frequently resulted in important relationships?
- 32) Some people think of their networks as useful – for example, if they want to meet a known person in their field, they might consciously access their network to get an introduction. Do you think of your network of relationships as useful? What are its greatest benefits? Can you give me an example of when you used your network to accomplish something?
- 33) To what extent are you comfortable calling on your network contacts to do something for you? For example, would you be willing to ask a high % of people to read and edit a research paper for you? How do you think you compare to your peers on that?
- 34) Would you say that more of your important network relationships are with individuals from Cornell or individuals outside of Cornell? Which network do you rely on more – CU or non-CU?
- 35) Reflecting back on our conversation, relative to your peers do you think you are the same, more or less integrated within the Cornell community? Can you quantify this on our scale of 1 to 5?
- 36) We’ve asked you a lot about where you currently are with respect to networks of relationships. Could you give us a sense of what type of network or particular relationships, if any, that you aspire to have in the future?
- 37) Are there any important relationships and/or other topics which I didn’t ask you about?
- 38) Can you think of a question that I should add to this interview in the future?

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