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Vitality in the Academic Workplace: Sustaining Professional Growth for Mid-Career Faculty

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Abstract
This study seeks to identify dimensions of the academic work environment that affect mid-career faculty vitality. Previous research suggests that mid-career faculty may struggle to maintain their vitality, as they are susceptible to high levels of burnout and extensive workload demands. We distributed an online survey to a random sample of 300 tenured faculty who were employed at three public comprehensive universities. Mid-career faculty (N=30) with the highest scores on a vitality survey measure were invited to participate in individual interviews. Study findings highlight the importance of creating vitality-enhancing work environments for mid-career faculty. In addition to identifying collegiality as a contributor to mid-career vitality, the study findings reveal specific sources of vitality-enhancing collegiality, including informal relationships in academic departments, participation in faculty development programs, and support and messaging from top-level academic leaders. Additionally, this study found that public comprehensive university missions served as a compelling basis for establishing collegial relationships and sustaining faculty vitality.

Keywords Faculty vitality · mid-career faculty · collegiality · work environments · public comprehensive universities · faculty development

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Introduction

After striving for years to establish themselves in the field and earn a tenured position, mid-career faculty may encounter a new set of challenges. The immediate post-tenure years are often characterized by a ramping up of service expectations, including requests to chair academic departments and lead major committees. These service activities can draw attention away from scholarly agendas and generate significant frustration with a lack of control over one's work (Misra et al., 2011). Furthermore, after the intense effort needed to achieve tenure, mid-career faculty may experience an anticlimactic lull in which they struggle to determine the focus for the next stage of their career (Beauboeuf-Lafontant et al., 2019; Neumann, 2009). Baldwin (1990) refers to this challenge as a "plateauing trap" (p. 176), where mid-career faculty rely on their previously accumulated expertise and hesitate to pursue new ideas and approaches in their teaching and research. Similarly, Beauboeuf et al. (2017) refer to a sense of malaise that can set in at mid-career.

Unfortunately, institutions seldom provide mid-career faculty with resources or support for addressing these challenges. Faculty development programs are typically geared toward early-career scholars (Gappa et al., 2007), and institutions are notoriously vague regarding expectations for promotion to the full professor rank (Gardner & Blackstone, 2013). As a result, mid-career faculty may feel underappreciated and inadequately supported. In this context, it is not surprising that mid-career faculty report lower levels of job satisfaction than their early- and late-career colleagues (Baldwin et al., 2005; Mathews, 2014).

Collectively, these challenges constitute a threat to mid-career faculty vitality. Vitality refers to an affective state that drives effort and engagement (Gardner, 1978). In the field of social psychology, Ryan and Deci (2008) define vitality as a "positively toned, energized" state in which "people experience a sense of enthusiasm, aliveness, and energy available to the self" (p. 703). In the field of higher education, research suggests that vitality may enhance faculty productivity and lead to higher levels of job satisfaction, psychological well-being, and sense of agency in the workplace (Baldwin, 1990; Beauboeuf-Lafontant et al., 2019; Strage et al., 2008). Higher education scholars also suggest that vital faculty participate actively in campus governance, make meaningful contributions to their disciplines, and are continually in search of new ideas to incorporate into their practice (Clark & Corcoran, 1985; Schuster, 1985).

While previous studies have documented the characteristics and behaviors of vital faculty, research remains limited regarding how institutional conditions impact faculty vitality. Centering the institutional context in studies of faculty vitality is important so that the literature does not place the burden or blame for lack of vitality on individual faculty members. Establishing and sustaining vitality involves complex interactions between individuals and their work environments (Spreitzer et al., 2005). While studies of personal strategies to enhance vitality, such as mindfulness and resilience, make worthwhile contributions (Block-Lerner & Cardaciotto, 2016), concentrating only on individual change neglects systemic forces in the work environment that can deplete or sustain the energy of organizational members.

The purpose of this study is to understand how institutional work environments affect the ability of mid-career faculty to maintain and sustain their vitality. This study is grounded in positive organizational psychology, which seeks to identify features of work environments that can support human potential, meaningfulness, and well-being (Cameron et al., 2003; Seligman & Csikszentmihalyi, 2000). While research on the vitality-work environment relationship has typically focused on factors that diminish vitality, studies in the positive organizational psychology tradition seek to identify "what works" in relation to sustaining vitality. This positive organizational psychology focus could make an important contribution to the literature on mid-career faculty. Previous studies have carefully diagnosed mid-career challenges, but more research is needed to identify solutions for sustaining vitality. As Beauboeuf-Lafontant et al. (2019) argue, "research into the mid-career tends to diagnose and then re-diagnose the possible explanations for this malaise without suggesting many possible remedies or interventions" (p. 646).

Our emphasis on positive organizational psychology shaped the research design for this study. First, we sought to conduct the study at institutions that were likely to have vitality-enhancing work environments. Therefore, we selected for this study three public comprehensive universities that provide professional development resources and support directly tailored for mid-career faculty. Second, we endeavored to collect data from mid-career faculty who were experiencing high levels of vitality, so that we could identify how conditions in the work environment were affecting their ability to remain vital. After distributing a survey to a random sample of mid-career faculty at the three selected institutions, we used the data to identify and interview 30 mid-career faculty who reported high levels of vitality.

This study makes several unique contributions to the literature. First, the study extends previous research on faculty vitality by exploring the role of vitality-enhancing work environments. Second, the study's focus on positive organizational psychology addresses an identified need for research on remedies and solutions to the challenges faced by mid-career faculty. Finally, the data were collected from faculty in public comprehensive universities, an understudied segment of higher education.

Literature Review

The concept of vitality has a rich tradition in multiple disciplines. In Eastern traditions, several spiritual and meditational practices, such as yoga, reiki, and zen, conceptualize vitality as a health-promoting energy (Lavrusheva, 2020). The Chinese concept of chi, for example, refers to a state of calm energy that can be replenished over time. In Western medicine, the study of vitality is framed as an effort to identify origins of health, in contrast to traditional pathology, which seeks to identify the origins of disease (Penninx et al., 2000). Similarly, in the social sciences, vitality has been identified as a contributor to psychological well-being (Ryan & Frederick, 1997).

Social psychologists have established empirical connections between vitality and higher levels of creativity (Kark & Carmeli, 2009) and job performance (Carmeli, 2009; Dubreuil et al., 2014), as well as decreased anxiety and better coping with

stress (Ryan & Frederick, 1997). At work, vitality can foster career success (Baruch et al., 2014) and contribute to work-life balance (Allen & Kiburz, 2012). Engaging in meaningful work (Niessen et al., 2012) and having opportunities to learn on the job (Fritz et al., 2011) are associated with gains in vitality. Conversely, working in a highly controlled environment can diminish vitality (Ryan & Deci, 2008).

Research on faculty vitality has focused primarily on the productivity and behaviors of vital faculty. Clark and Corcoran (1985), for example, conducted one of the first empirical studies of faculty vitality. At a research university, they used a reputational method to select a group of "highly active" faculty who were consistently productive in research, teaching, and service. They compared the "highly active" group to a random sample of "representative" faculty, as well as a group of promotion-delayed faculty who had served at the associate professor rank for nine years or more. Study findings demonstrated that the highly productive faculty reported more vitality in their work. While other studies have documented similar positive associations between vitality and productivity (Baldwin, 1990; Chan & Burton, 1995; McLaughlin, 1999), Huston et al. (2007) found that highly productive faculty can still become disengaged from their institutions and lack vitality as a result.

Further research has explored how vital faculty allocate and balance their time. In a widely-cited study, Baldwin (1990) conducted research at four liberal arts colleges to distinguish between vital faculty and faculty who had lost momentum and remained on a plateau. Using a reputational method, Baldwin asked faculty and administrators to identify "star performers" (p. 163) at their institution. Data from these vital faculty were compared to a representative group from the same institutions. Findings indicated that vital faculty worked five hours per week longer than representative faculty. How vital faculty used their time also differed. They spent more time doing research, institutional service, and administrative duties, compared to representative faculty. The vital group members were also more likely than representative faculty to collaborate with peers to team-teach or conduct research. Additional studies have shown that vital faculty set meaningful goals, embrace opportunities for growth (Strage et al., 2008), maintain a positive outlook (McLaughlin, 1999), and demonstrate a long-term commitment to self-improvement (Kalivoda, 1993).

Another line of research examines personal strategies that faculty can use to enhance their vitality. Cruz and Herzog (2018), for example, studied vitality among late-career faculty at a public comprehensive university. In open-ended survey responses, faculty identified several strategies that they use to sustain their vitality. These strategies included building relationships with students and colleagues, establishing a sense of self-efficacy, and maintaining a positive mindset. In another study, Campion et al. (2016) created a faculty development program to train mid-career faculty in strategies for enhancing vitality. Based on a quasi-experimental design, the study demonstrated gains in vitality for the medical school faculty who participated in the trainings. While research on personal strategies can help faculty maintain a focus on their own growth and development, an emphasis on personal strategies alone neglects to consider organizational factors that limit or sustain vitality. The underlying implication of focusing on personal strategies is that the faculty member must change rather than the institution.

Research remains limited on the relationship between academic work environments and faculty vitality. As Shah et al. (2018) explain, "Although the existing literature defines faculty vitality broadly, the same literature does not sufficiently cover important phenomena relevant to the interaction between an individual faculty member and the organization" (p. 983). Previous studies, however, provide some indirect evidence regarding how features of the organization affect faculty vitality. For example, Baldwin (1990) found that nearly half (46%) of vital faculty reported that administrators had provided them with direct support for their work, but only 20% of representative faculty cited any such assistance from administrators. Forms of assistance included reduced teaching loads, funds for equipment, and general encouragement. Relatedly, efforts to clarify institutional missions and priorities may have a positive impact on faculty vitality. Chan and Burton's (1995) study of a private comprehensive university did not use an operational definition of vitality to differentiate the concept from other related phenomena. Instead, they equated faculty vitality with indicators of satisfaction with workload, faculty development opportunities, and tenure and promotion processes. Using data from two surveys, the study found that faculty vitality indicators improved following a strategic change initiative that clarified institutional mission and priorities. Conversely, Huston et al. (2007) found that inconsistencies between institutional policies and the actions of administrators contributed to lower levels of vitality.

The importance of the organizational context is demonstrated in studies that link faculty vitality to faculty members' sense of connection and commitment to the institution. Beauboeuf-Lafontant et al. (2019) studied the experiences of mid-career faculty at three liberal arts colleges. They identified four mid-career pathways that varied based on levels of career satisfaction and sense of connection to the institution. First, the pathway toward becoming a discouraged isolate was characterized by a low level of satisfaction, as well as disengagement from the institution. The authors found that these faculty had desired a sense of connection to their institution, but they had become discouraged through painful experiences associated with being devalued or betrayed. Faculty in the second pathway were described as independent agents. They were generally satisfied with their careers but were not particularly connected to their institution. These faculty were sustained by connections to external networks and colleagues at other institutions. Beauboeuf-Lafontant et al. found that many women faculty and racially minoritized faculty operated as independent agents due to lack of support from their home departments and institutions. The third pathway, occupied by weary citizens, was comprised of faculty who were highly committed to the mission and goals of their institution but had become burned out by extensive service obligations. Finally, the fourth pathway, labeled synergistic citizens, included faculty with high levels of satisfaction and deep commitment to the institution. The characteristics of synergistic citizens are similar to those identified in previous studies of faculty vitality, including intellectual curiosity, a sense of control over their career, and an ability to reinvent themselves and pursue new projects that differ from earlier stages of their career.

To build additional research on the linkage between organizational conditions and faculty vitality, researchers can draw upon a long-standing framework developed by Schuster (1985). This framework identifies both tangible and intangible features of

the work environment that can impact faculty vitality. Tangible features are directly observable in the academic work environment and include compensation, reward systems, workload, opportunities for professional development, and administrative support. Intangible features may be less obvious but still carry important implications for faculty vitality. According to Schuster, organizational culture, sense of community, and feeling appreciated and valued are intangible dimensions of the work environment that can shape faculty vitality. For this study, we used Schuster's framework in our initial round of coding the data related to work environments and vitality.

Methods

Site Selection

Public comprehensive universities were selected as the site for this study because this institutional type has been understudied in higher education research. Often viewed as anchor institutions in their local communities, public comprehensive universities provide access in regions that have historically been underserved by public and private resources (Orphan & McClure, 2019). Institutional missions emphasize public outreach, community engagement, and undergraduate education. For this study, we used Carnegie classifications to identify 256 public master's colleges and universities. All three universities selected for this study were Carnegie public master's institutions.

This study used a two-step process (expert interviews and website reviews) to identify three public comprehensive universities in the Northeast region of the United States that provided multiple professional development opportunities uniquely tailored for mid-career faculty. Based on this criterion, three experts, who were knowledgeable about public comprehensive universities in the region, provided seven institutional recommendations. We explored these universities' websites to confirm the presence of professional development programs to support mid-career faculty. Among the seven recommended institutions, we selected the three institutions that offered the largest number and widest variety of mid-career faculty development programs.

We assigned pseudonyms to the three selected institutions. First, Exemplary State is located in an urban setting with an enrollment of nearly 10,000 students and 275 full-time faculty. Not only does Exemplary State support a faculty development center to provide technical assistance for teaching and research, but the institution has also created a faculty advocacy center, which provides mentoring opportunities and career development workshops. Opportunities specifically designed for mid-career faculty include a mid-career luncheon series, leadership development fellowships, and annual research awards. Second, Rockland State is located in a rural area and enrolls more than 5,000 students with 175 full-time faculty. During the year in which this study took place, Rockland State was selected as a "Great College to Work For" in a survey conducted by the *Chronicle of Higher Education*. The institution's website lists several programs to support employee health and wellness,

including an on-campus childcare center. Rockland State convenes several faculty learning communities that serve as venues for mid-career faculty to explore new pedagogical approaches. And third, Synergy State occupies a suburban location and enrolls approximately 5,000 students with 190 full-time faculty. During the year in which this study took place, Synergy State was also named as a "Great College to Work For" in the *Chronicle of Higher Education* survey. Professional development opportunities for mid-career faculty include career development workshops and funding to support innovative teaching and research projects.

Participant Selection

At each of the three selected institutions, an online survey was distributed to a random sample of 100 faculty at the tenured rank of associate or full professor (N=300). Mid-career was defined, in this study, as having attained the tenured rank of associate or full professor and having no self-reported intention to retire within the next five years. Faculty anticipating retirement can instead be classified as late-career academics (Sorcinelli et al., 2006).

Previous studies of faculty vitality have identified study participants through recommendations by faculty peers and administrators (Baldwin, 1990; McLaughlin, 1999). Recommenders, however, may not have sufficient information to render an assessment of vitality for all possible study participants. Limited knowledge and implicit biases may also result in inaccurate assessments of vitality. Instead, we decided to select interview participants based on how the faculty members themselves rated their vitality. Guérin (2012), in fact, argues that vitality should be measured only through self-reports, since vitality refers to a level of personal energy that can be determined only by the individual. Therefore, we used a survey to enable faculty to self-report their sense of vitality.

For measurement purposes, we used Ryan and Deci's (2008) definition, which states that vitality is a "positively toned, energized" state in which "people experience a sense of enthusiasm, aliveness, and energy available to the self" (p. 703). To construct our survey items, we followed Ryan and Frederick (1997), who measured vitality using items that refer to energy and aliveness. We developed similar items that refer to energy, passion, and excitement. Ryan and Frederick's items sought to measure general vitality in life. Our purpose, however, was to measure vitality that pertains specifically to the faculty role. Therefore, we framed our survey items in terms of subjective feelings about work and career. Furthermore, we included survey items that refer to behaviors and actions that demonstrate vitality. According to Gardner (1978), vitality can be observed in behaviors related to seeking challenges, persisting at tasks, and taking risks with new ideas. The survey included 14 items to measure vitality (four-point scale).

Factor analysis revealed two latent constructs in the data (Table 1). Four items loaded onto a factor that we labeled "work vitality." This factor represents Ryan and Frederick's (1997) conceptualization of vitality as a sense of energy and enthusiasm. Five items loaded onto a factor that we labeled "vitality actions." This factor contains items that refer to the behavioral dimensions of vitality that Gardner (1978)

Table 1 Vitality survey items: Factor loadings

	Work vitality factor	Vitality actions factor
I find some part or parts of my work exciting.	.716	.082
I aim to be among the best in the world at what I do.	.653	.154
Setbacks don't discourage me.	.222	.636
I am driven to succeed.	.490	.511
I am confident that I can deal with unexpected events.	-.061	.772
If someone opposes me, I can find the means and a way to get what I want.	.114	.643
I am not afraid to take risks.	.194	.553
I feel passionate about my work.	.721	.237
I have more energy now than I had earlier in my career.	.734	.053

*Principal components analysis, varimax rotation

described. Five items did not load with either factor; those items were removed from the analysis. Cronbach's alpha coefficients revealed that the two vitality factors have acceptable reliability. Statistics for skewness and kurtosis indicated that the data for both vitality factors fit the assumptions of a normal distribution (Table 2). Regarding construct validity, both vitality factors demonstrated positive correlations with single-item measures of job satisfaction and turnover intent (Table 3), variables previously associated with vitality (Baruch et al., 2014).

Vitality scores were used to select participants for interviews. All interview participants scored above the mean for both vitality measures. Collectively, the 30 interview participants scored significantly higher on work vitality and vitality actions than the survey respondents who were not selected for an interview (Table 4).

Table 2 Descriptive statistics

	Mean	Standard deviation	Skewness	Kurtosis	Cronbach's alpha
Work vitality	2.84	.55	-.007	-.608	.70
Vitality actions	2.82	.42	.243	.443	.67

Table 3 Correlation matrix

	Work vitality	Vitality actions	Intent to stay
Vitality actions	.452*		
Intent to stay	.302*	.285*	
Career satisfaction	.386*	.382*	.578*

Intent to stay item: I can't imagine working anywhere else.

Career satisfaction item: When I reflect on my career as a professor, I am quite pleased with how things have turned out.

*Significant at .01 level

Table 4 Vitality comparisons for faculty selected and not selected for interviews

		Mean	t-value	Significance
Work vitality	Selected for interview	3.14	3.68	<.001
	Not selected	2.72		
		Mean	t-value	Significance
Vitality actions	Selected for interview	2.97	2.37	.020
	Not selected	2.76		

Survey responses from late-career faculty (those reporting an intent to retire within the next five years) were removed from the analysis. Across the three institutions, a total of 102 mid-career faculty completed the survey. Response rates were 30% at Exemplary State, 35% at Rockland State, and 37% at Synergy State (34% overall response rate). Our interview sampling procedure yielded an equal number of men and women, an equal number of associate and full professors, and faculty from 14 academic disciplines; however, we were less successful in recruiting faculty of color. Among the 30 study participants, only four (13%) are faculty of color. Among full-time faculty at Exemplary State, 27% are faculty of color. The comparable percentages are 25% at Synergy State and 10% at Rockland State.

Data Collection and Analysis

The one-hour, face-to-face interviews were audio-recorded and transcribed, and the data were analyzed using NVIVO 8. The initial coding categories were based on dimensions of vitality extracted from the literature. Those dimensions included energy, motivation, curiosity, creativity, optimism, risk taking, and challenge seeking. As noted previously, initial codes for vitality-enhancing work environments were drawn from Schuster's (1985) framework.

To enhance trustworthiness in the study findings, we used several strategies (Mertens, 2020). First, we triangulated the interview data with institutional documents to enhance our understanding of university structures and practices that were described by the study participants. For example, when study participants mentioned campus committees, research centers, or faculty development programs, we examined corresponding institutional websites to enhance our understanding of related structures and practices. Second, we member checked all transcripts and received responses from 22 study participants. Only minor clarifications to the transcripts were made as a result. Finally, regarding the use of multiple investigators, both of us read the transcripts and coded data using the same initial categories.

Limitations

Several limitations should be considered in relation to interpreting the study findings. First, the study focuses only on mid-career faculty with full-time tenured appointments. In our literature review, all studies of vitality focused on full-time

faculty, some in tenure-track positions and others in clinical appointments in medical school settings. While researchers have examined job satisfaction and working conditions for part-time faculty, we did not uncover any published research on vitality for part-time faculty. Given the growing prevalence of part-time appointments (Kezar & Sam, 2013), we encourage researchers to examine what vitality means for part-time faculty, especially for those who would prefer full-time appointments – a group that prior research has shown to be particularly dissatisfied with their working conditions (Eagan et al., 2015).

Second, as noted previously, our sampling procedure yielded only four faculty of color as participants for the study. Given racialized workloads and inequities in institutional support based on race (Misra et al., 2021; Turner et al., 2008), researchers should pursue studies of vitality that are grounded in the lived experiences of faculty of color. While researchers have documented the racialized barriers experienced by faculty of color, scholars who study faculty vitality have not yet examined how racialized work environments impact the level of vitality experienced by faculty of color. Insights from prior research on racial battle fatigue (Arnold et al., 2016), given its similar focus on the concept of energy, could be infused into studies of vitality that have an explicit focus on race.

A third limitation relates to the need for study findings to be interpreted in the context of institutional type. Institutional type is likely to shape how academic work environments impact faculty vitality. Public comprehensive universities tend to emphasize undergraduate teaching and applied research to serve local communities (McClure, 2018). Faculty vitality in this context might emerge through interactions that focus on pedagogical practices, efforts to support student learning, and initiatives to serve the public through community engagement. Institutional strategies to enhance vitality, therefore, might not be transferable across institutional types.

Findings

First, the findings indicate that collegial work environments enabled our mid-career study participants to maintain and enhance their vitality. Collegiality can be defined as "opportunities for faculty members to feel that they belong to a mutually respected community of colleagues who value their unique contributions to their institutions and who are concerned about their overall well-being" (Gappa et al., 2007, p. 142). Collegial relationships provided both instrumental (task-oriented) and emotional support, which helped sustain faculty vitality. These vitality-enhancing relationships emerged not only through the networking behaviors of individual faculty, but also via faculty participation in organizational structures and programs.

A second finding relates to institutional support for faculty-initiated projects. Previous research demonstrates that engaging in meaningful work can sustain vitality (Niessen et al., 2012; Strage et al., 2008). For faculty, mid-career is often a time for reassessment and embarking on projects that mark a new phase in one's professional journey (Baldwin & Chang, 2006). All study participants indicated that they were engaged in a personal project that reflected their current passions and priorities

as scholars. Importantly, these projects were supported by specific administrative actions and resource allocations.

Relatedly, a third set of findings shows that when faculty encountered obstacles or barriers to their vitality, they were able to identify alternative sources of support. When initial paths were blocked, they redirected their efforts toward other available emotional and financial supports. This process was facilitated by university work environments that supplied multiple streams of decentralized resources that were not controlled by a small group of administrators at the top of the hierarchy.

Collegiality

All 30 study participants mentioned collegiality or collegial relationships as a component of the work environment that contributes to their vitality. We use the terms instrumental and emotional collegiality to describe how these relationships fostered vitality. First, instrumental collegiality refers to how interpersonal relationships and interactions enhanced faculty experiences with work tasks. Specifically, collegial relationships served as energizing sources of new ideas, as well as resources for collective problem solving. The faculty in our study routinely asked other faculty about their teaching practices and scholarly projects. When they applied those new ideas or pieces of advice to their own practice, they described feeling reenergized and able to pursue new projects. Second, emotional collegiality refers to interpersonal relationships and interactions that foster a sense of community or that convey respect for faculty contributions to the institution. Study participants indicated that these feelings of community and respect enhanced their energy and supplied needed encouragement to overcome challenges.

Instrumental Collegiality

Among the 30 study participants, 24 described interpersonal relationships that we characterized as supporting instrumental collegiality. Study participants indicated that they were able to persist with complex projects or pursue new directions for their work, because they could rely on colleagues for ideas and advice. Instrumental collegial relationships provided opportunities for faculty to share new ideas and solve problems together. These interpersonal interactions, in turn, sustained vitality. While most study participants described attending academic conferences and bringing new ideas into their practice, they noted that they derived the most energy from ideas exchanged with colleagues at their own institution. Proximity to institutional colleagues enabled faculty to engage in impromptu conversations whenever they needed a boost of energy or an infusion of new ideas to support their work. For example, Professor Gatekeeper (pseudonyms used throughout) explained that she would routinely turn to an admired colleague whom she described as consistently enthusiastic and optimistic about his work. Each time she met with him, she walked away from the conversation feeling energized with new ideas.

> There's a professor here, when I bump into him, I'm having a good day, because he is so much of what I strive for. And he is older than I am… but

> he is excited like a little kid… I need to hear what you're doing [I say to him] because it's like this young energy.

Instrumental collegial relationships were often an outgrowth of faculty participation in university-sponsored structures and programs. Study participants at all three institutions identified organizational structures that fostered instrumental collegiality. These structures included faculty learning communities, interdisciplinary research centers, first-year seminar programs, and funding for organizing conferences on campus. These university-sponsored structures enabled faculty to meet outside their respective departments to learn new skills, develop professional interests, and share knowledge with each other.

Faculty learning communities (FLCs) at Rockland State provide an example of how organizational structures supported instrumental collegiality and vitality. According to Cox (2004), FLCs are professional development seminars that meet frequently across a semester or academic year and provide a venue for faculty to share and build knowledge, often across disciplinary boundaries. While FLCs are typically offered for early-career faculty, at Rockland State, FLCs were also created specifically for mid-career faculty. Professor Mirror described the collegiality and vitality that emerged from her experience in a mid-career FLC at Rockland State:

> We meet once a month or so, and I feel so charged up after those meetings. There are about five or six of us, and it [the agenda] can vary. Sometimes a person brings a problem they're encountering in their teaching, and sometimes we use a protocol to discuss that and get feedback to that person. Sometimes we've chosen to focus on a common issue. For example, we've focused a lot on why students aren't doing the reading [for class]. We've had some really good conversations. And these are colleagues from all different disciplines. So, it's really interesting to have that.

Study participants at Rockland State noted that their participation in FLCs renewed their energy for teaching by supplying creative ideas that they could try in their own courses. Similarly, Professor Heartsoul praised the faculty development offerings at Exemplary State. She noted that these programs not only provide an opportunity to build relationships with faculty in other departments, but also create space for faculty to experiment with new ideas and take some risks in their teaching.

The collegial relationships that emerged via participation in faculty development programs tended to have staying power. Study participants described how they continue to rely on colleagues whom they met in faculty development workshops and seminars. At Rockland State, members of mid-career FLCs continue to meet informally many years after their groups were initially formed. And at Synergy State, Professor Essential said that she continues to converse with faculty from other disciplines whom she met in faculty development workshops.

> Sometimes I invite them to classes. I have one course where I try to invite other people from sociology, you know, other fields. They [the students] see other points of view, because otherwise, if you are all by yourself in your little world, you don't get as much accomplished.

While FLCs were a primary driver of instrumental collegiality at Rockland State, interdisciplinary research centers at Exemplary State and Synergy State provided similar venues for building instrumental collegiality. At Exemplary State, a sustainability center brings together faculty from natural and social sciences to address environmental and climate issues. Synergy State supports a community engagement center that attracts faculty from professional fields and the social sciences to engage in projects with local businesses, schools, and non-profit organizations. The interdisciplinary centers not only provided technical and financial support for these projects, but they also contributed to cross-departmental relationship development. Specifically, the centers sponsored informal coffee hours, guest speakers, and teaching demonstrations that brought faculty together from multiple departments for casual conversation and information sharing.

Study participants noted that their commitment to the mission of a public comprehensive university provided a common point of connection with other faculty members. Faculty members' scholarly agendas are highly specialized and often not well understood by other faculty, even among those in the same department. But the public comprehensive mission provided a rationale and common framework for faculty to communicate with each other about their work, particularly around efforts to improve undergraduate education (in FLCs, for example) or engage with community partners (in interdisciplinary centers). As Professor Heartsoul noted, "The [academic] fields have become so specialized that we are really far apart. So, where we can find those opportunities to acknowledge each other's work is great."

Emotion-based Collegiality

While instrumental collegiality supplied ideas and advice that sustained energy and effort toward tasks, emotion-based collegiality provided a sense of belonging and social support, which enabled study participants to maintain their vitality even during challenging times. Previous research suggests that when people feel that they belong to a community whose members value and appreciate them, they experience higher levels of vitality (Lavrusheva, 2020). Two-thirds of the participants in this study (N=20) described interpersonal relationships that we characterized as supporting emotional collegiality.

Emotion-based collegiality was frequently initiated within informal and unstructured conversations with departmental colleagues, beyond the typical committee meetings. Some faculty, for example, said that they could work from home on days when they do not teach classes, but instead they come to campus on those days anyway, primarily to see their colleagues. In response to an interview question that asked study participants to describe their "best day" at work, faculty often described informal interactions with departmental colleagues. Professors Homeaway and Mirror, for example, said that the "best day" would including meeting departmental colleagues for coffee or lunch. A "good talk" with a colleague is how Professor Opportunity described such a meeting, while Professor Light said that during such meetings, he enjoys sharing what went on in his classes. Professor Heartsoul said

that her "best days" include a meeting with her department chair. Faculty described these opportunities for ongoing camaraderie as a source of social energy.

While all 20 faculty who described instances of emotional collegiality referred to relationships with faculty colleagues, six of these study participants also mentioned the positive effects of top-level academic leaders who set the tone for collegiality across campus. Through public statements and more targeted interpersonal communications, administrators conveyed that faculty are valued members of the institutional community. Professor Heartsoul, for example, said that she has been impressed with the support that she receives from the president and her academic dean, who both consistently convey respect for faculty.

> I came to an institution, here, where the president is very clear about the value of faculty and his message of trying to help faculty in their own professional development. And by doing that, then we will have more stimulated faculty members, who in turn will be more engaged with students… And the dean is again echoing the same message as the president.

Similarly, Professor Pollination mentioned that his interactions with administrators at Rockland State have helped him establish a sense of belonging with the institution. And Professor Resilience described the culture of Exemplary State as grounded in the notion of community. "People are very supportive and it's a real sense of community from the president on down."

Institutional Support for Faculty-initiated Projects

All 30 study participants identified a specific personal project that enhanced their vitality. Specifically, they felt energized when they worked on this project. Previous research suggests that while some tasks drain energy, other activities are revitalizing and actually give people more energy (Ryan & Deci, 2008). In this study, we refer to those activities as passion projects, because they reflect components of work that faculty find most meaningful to their personal goals and identities. Study participants indicated that the more time they spent on their passion project, the more vitality they experienced in their work.

We found that 18 study participants mentioned how their institution directly supports their passion project. This support was facilitated through various mechanisms, including course releases and internal grants to pursue new projects, as well as larger budgetary and structural changes to provide space and staff for ongoing faculty-led initiatives. We identified parallels between this study finding and research by Lindholm (2003). In a study at a research university, Lindholm found that faculty experienced a stronger sense of person-organization fit when their institution provided structural support for faculty to pursue their personal ambitions. Similarly, participants in our study indicated that their institutions enhanced their vitality by providing opportunities for them to pursue projects about which they are passionate.

Importantly, these institutional mechanisms of support were not typically linked to specific strategic priorities set by top-level leaders. Instead, the primary aim was to more generally support faculty growth and development. Frequently,

administrators create internal funding mechanisms to encourage faculty to participate in activities that advance strategic priorities, such as teaching with technology or student learning outcomes assessment. But in this study, administrators issued open calls to support faculty work in any area that could advance the institution's mission. These open-ended invitations gave faculty more discretion to apply for resources to support projects about which they were passionate. And more support for passion projects contributed directly to more vitality. As Professor Evolve indicated, Exemplary State "has been very good at letting people pursue what they're interested in, and I think I have flourished under that system." Next, we provide a brief vignette to illustrate how institutions provided support for faculty-initiated passion projects.

Professor Gatekeeper teaches psychology courses at Exemplary State. In particular, she is passionate about teaching group therapy courses. She expressed her enthusiasm for this work to her new academic dean. In response, the dean shared an innovative way to teach group therapy. At the dean's previous institution, the university had hired students from the theater department to role play patients in a simulated group therapy session. Professor Gatekeeper was delighted that the dean had taken an interest in her work, and she was energized by the opportunity to implement this innovative teaching practice. The dean agreed to pay the theater students for their work, as well as provide some administrative support for processing the employment contracts. Professor Gatekeeper noted that the psychology students found the simulations so engaging that they invited their friends, who were not enrolled in the course, to attend class and view the role plays first-hand. Professor Gatekeeper indicated that her experience serves as an example of how administrators and faculty can work together to support student learning.

Regarding our finding about institutional support, one interpretation is that these faculty represent a dominant coalition in the institution whose values are aligned with top-level leaders and who are thus favored with resources. We do not discount this interpretation, since it appears that proximity to power and access to resources contribute to faculty vitality. But an important consideration is that faculty initiated their passion projects based on personal interests that were meaningful and relevant to their scholarly identities, rather than as an attempt to curry favor with administrators.

Alternate Paths of Support

Another element of the work environment that supported vitality was the presence of alternate paths of support when faculty were encountering obstacles or experiencing frustration. This finding reflects how interactions between individual behavior and organizational structure shape faculty vitality. In terms of behaviors, these faculty were persistent and when they encountered a blocked path, they navigated alternate routes. Regarding organizational structure, the architectures of these universities supplied multiple routes through which faculty could find support.

First, it is important to acknowledge that these mid-career faculty, who had reported high levels of vitality, were continuing to experience obstacles and

challenges in the workplace. Reflecting Schuster's (1985) framework, these obstacles to vitality included tangible features, specifically high workload and low compensation. Sixteen faculty identified workload as a barrier to their vitality. Regarding workload, study participants mentioned heavy teaching loads. Two institutions in this study had 4-4 teaching loads, while the third institution had recently moved from 4-4 to 4-3. Additionally, seven faculty mentioned low pay as a barrier. Low salaries led these faculty to pursue summer teaching for additional compensation, but these commitments often reduced time available to engage in passion projects or simply recharge after the academic year, thus diminishing vitality.

Consistent with previous research on faculty work environments (Misra et al., 2021), obstacles to vitality were gendered. For example, more women (N=10) than men (N=6) discussed heavy workloads as an obstacle to their vitality. The workload challenges were qualitatively different, as well. Men referred to heavy teaching loads that directed time away from passion projects and publication, while women referred to heavy teaching, advising, and service loads that hindered both professional advancement and work-life balance. Professor Mirror, for example, described herself as having a "crazy good, crazy bad work ethic and an overdeveloped sense of responsibility" that played into Rockland State's "culture of overwork."

In addition to tangible obstacles, study participants identified two intangible features of the work environment that interfered with their vitality, specifically dysfunctional interpersonal relationships in the department (mentioned by eight faculty) and lack of administrative recognition for their accomplishments (mentioned by five faculty). More women (N=6) than men (N=2) identified problematic interpersonal relationships as an obstacle to their vitality. Professor Bali, for example, described how her focus on non-traditional holistic health practices was discounted by faculty in her predominantly-male physical education department. Professor Lincoln mentioned that her mostly male departmental colleagues failed to acknowledge her childcare responsibilities. She described a department meeting that was running late, and she excused herself to pick-up her children after school, only to be frowned upon by others at the meeting. Lack of administrative recognition was a less prominent theme, mentioned by three men and two women, and reflected instances when administrators claimed credit for work accomplished by faculty.

While navigating and negotiating obstacles is an everyday characteristic of academic life, the faculty in this study found a large number of alternate routes that they could navigate toward the destination of vitality. Heavy workloads were mitigated, to some extent, by administrators who provided course releases for faculty to engage in their passion projects, and by department chairs who designed opportunities for faculty to teach courses in areas related to their personal passions, such as Professor Gatekeeper's psychology courses in group therapy. Negative departmental relationships and lack of administrative recognition were addressed by faculty who located alternative sources of support at different levels in the organization. Next, we offer a brief vignette that illustrates how revitalization can be catalyzed by the interaction between faculty behaviors and an organizational architecture that provides multiple means of support.

At Rockland State, Professor Visor described a former department chair who "made life miserable for everyone" by making unreasonable demands on faculty

time and by making erratic changes to the teaching schedule. Two other faculty in the department quit as a result of the chair's behavior. At the time, Professor Visor had been recently tenured, and she was hesitant to look for work elsewhere. So, she approached her dean and requested a schedule of morning and night classes so that she could use the middle of each day for self-care and renewal. The dean approved this request, and she has maintained this teaching schedule ever since, even after the problematic chair was "eased out" of the position. Furthermore, in the context of this turmoil within the department, she immersed herself in her passion project and found more administrative support for it. Specifically, she created a regional women's health institute, which includes a 15-credit hour certificate program. Professor Visor noted that the institute is funded primarily through grants that she writes, but the university provides space and administrative support for the four adjunct faculty who now teach in the institute. She explained that the culture at Rockland State has been growth enhancing for her, because she believes that faculty are respected for pursuing a wide variety of activities.

Conclusions

Our study was based in positive organizational psychology, which seeks to understand how work environments can facilitate well-being. We interviewed mid-career faculty who reported high levels of vitality to understand what worked for sustaining their energy and enthusiasm at this important career stage. Given this focus, we conducted the study at three universities that we determined were likely to have vitality-enhancing work environments. The study used the prevalence of mid-career faculty development programs as an indicator of a vitality-enhancing work environment. Study findings suggest that the faculty development programs at these three institutions, along with other tangible and intangible features of the work environment, supported mid-career faculty vitality.

Our findings support and extend Schuster's (1985) framework for understanding how organizational conditions impact faculty vitality. Study participants identified collegiality, an intangible feature, and administrative support, a tangible component, as dimensions of the work environment that sustain their vitality. Concurrently, dimensions of the work environment that interfered with vitality included both tangible (workload, compensation) and intangible (departmental climate and administrative recognition) factors.

Our findings, however, do not completely support a clear delineation between tangible and intangible factors. The intangible factor of collegiality, for example, was supported by tangible organizational structures and practices. For example, faculty development programs and interdisciplinary centers fostered the formation of collegial relationships. Similarly, the tangible factor of administrative support also conveyed intangible values for respecting the work of faculty. Regarding obstacles to vitality, tangible factors such as heavy workload and low salary not only depleted vitality but also contributed to negative perceptions of intangible factors, such as the extent to which faculty felt that administrators valued their work.

Based on these findings, Schuster's (1985) framework can be modified so that tangible and intangible features of the work environment represent two sides of the same coin. Maintaining favorable intangible features, such as collegiality, may depend upon the presence of sufficient tangible structures for relationship building. Similarly, tangible features, such as administrative support, are likely to have residual effects that improve faculty perceptions of intangible factors, such as respect and trust.

Study findings also contribute to the literature on how collegial work environments impact faculty attitudes and work outcomes. Previous research has documented how collegiality contributes to faculty job satisfaction (McCoy et al., 2013), intent to stay (Ambrose et al., 2005), and person-organization fit (Lindholm, 2003). Our findings suggest that mid-career faculty vitality may be another important outcome sustained by collegiality. Similarly, a study by Gonzales and Terosky (2018) alludes to an effect of collegiality on vitality. The study found that collegial relationships fulfilled five important functions: teaching improvement, interdisciplinary connections, research collaboration, career management, and friendship formation. Our study also found that collegiality fulfills both instrumental and social-emotional functions. The Gonzales and Terosky study does not define or conceptualize vitality; instead, the study suggests that these five functions of colleagueship are a "lever" for vitality (p. 1378). Extending the work of Gonzales and Terosky, we connected instrumental and emotion-based collegiality to specific faculty experiences with vitality, and we identified organizational structures that sustained connections between collegiality and vitality.

Furthermore, study findings suggest that vitality-enhancing work environments contain numerous sources of administrative support that enable faculty to engage in meaningful work. In many institutions, administrators use resource allocation as an incentive to induce faculty to participate in strategic initiatives designed by top-level leaders. In this study, however, administrators made resources available for faculty to pursue projects that the faculty members designed themselves. Importantly, resource allocations supported faculty autonomy. In social psychology, research indicates that when people have autonomy and are engaged in self-directed projects, their energy levels increase; conversely, participating in activities that are designed and controlled by others depletes a person's energy (Nix et al., 1999; Tummers et al., 2018). To explain this connection, Yu et al. (2020) suggest that autonomy enables people to engage in activities that are more authentic and aligned with their true self, and this sense of authenticity enables people to better access their personal energy. In our study, faculty felt supported in their efforts to engage in self-directed projects that were aligned with their scholarly identities. This level of support for autonomy and self-directed work contributed to their vitality.

Additionally, the institutional missions of public comprehensive universities appeared to provide a rationale and common framework for faculty to communicate with each other about their work, and eventually form collegial relationships around shared values and related practices. As McClure (2018) notes, too often, public comprehensive universities are depicted from a deficit perspective. They are described as lacking the rigor of a research university or the amenities of a liberal arts college, and their missions are viewed as ambiguous or lacking in distinction.

On the contrary, this study found that the public comprehensive mission – particularly regarding community outreach, public service, and undergraduate education – served as a compelling basis for establishing collegial relationships within and across departments. In response, administrators can reject the deficit narrative around public comprehensive universities and instead provide support for mission-related work that can strengthen faculty relationships and support mid-career vitality.

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Declaration

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Conflicts of interest/Competing interests None. Neither author was employed by any of the institutions participating in the study.

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