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Gendered Impacts of the COVID-19 Pandemic on the Nuclear Workforce

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ABSTRACT

The COVID-19 pandemic is the greatest resiliency challenge faced by the nuclear workforce in the 21st century. Impacts of the pandemic have been well quantified in terms of financial losses and diminished productivity; in April 2020 the unemployment rate in the United States reached an unprecedented peak of 14.8%. In June 2020, the National Bureau of Economic Research announced that the United States had entered a recession, underlined by a 31.4% annualized decline in gross domestic product in the second quarter of the year. However, a growing body of research illuminates an insidious trend in these findings. Increasingly it has been shown that the pandemic's impacts are stratified across lines of gender, with women's employment losses accounting for 66% of the growth in unemployment in the spring of 2020, 63% in the summer, and 59% in the fall. Worldwide, the burden of unpaid care work has increased significantly. Many schools are operating remotely, and family members have taken on care responsibilities for elderly household members and those with disabilities or suffering from illness. Worldwide, women spend an average of 4.1 hours per day on unpaid care work compared to 1.7 hours per day for men. An increase in the volume of care work jeopardizes women's ability to participate in paid work - initial studies show that women's jobs are 1.8 times more vulnerable to loss due to COVID-19 than those of men. The nuclear policy community is small and somewhat isolated from other sectors of the economy, but measures taken in response to COVID-19 were sweeping. To explore whether gender inequity in the nuclear policy community has been exacerbated by the pandemic, Gender Champions in Nuclear Policy launched an initiative to capture self-reported data. In the first quarter of 2021, a survey containing questions about workforce participation, care work responsibilities, and employment outlook was made publicly available and distributed through professional networks throughout the community. This paper will present results from responses submitted by over 200 members of the community in an effort to present impacts of the pandemic and unearth any exacerbation of gender inequity.

INTRODUCTION

No country was effectively prepared for the global COVID-19 pandemic; a key finding of NTI's 2019 Global Health Security Index was that "no country is fully prepared for epidemics or pandemics, and every country has important gaps to address."¹ While this assessment focused on national health security capabilities and preparedness, the logic of this finding extends to society at large. Measures taken to address the virus' rapid spread including school closures, enactment of quarantine and social distancing protocols, shuttering of non-essential businesses, and transitioning

to telework have had a dramatic impact on the personal and professional lives of people around the world.

Initial research has already shown that COVID-19's impacts on homes and workplaces has been gendered, with women suffering disproportionately from taking on additional childcare responsibilities, seeing their work hours reduced, or jeopardizing their productivity.ⁱⁱ Single parent households are likely to suffer the worst impacts of increased childcare demands with only one income stream to offset labor market downturns. In the United States single mothers are heads of household in 70% of single parent families (about 15.7 million families); of the 73.5 million children under 18 in the United States, 21% live only with their mother.ⁱⁱⁱ This puts an immense and disproportionate burden on these women to serve as the sole source of household income and primary caregiver, with no support provided by schools, daycares, summer camps, or traditional community resources.

Broadly, the nuclear policy community has thus far weathered the workforce impacts of the COVID-19 pandemic through transitioning to telework. The nuclear policy community is a unique professional ecosystem, encompassing private, publicly traded, non-profit, government funded, and government run organizations. These organizations vary widely in terms of budget, staff size, organizational structure, and functional specialization; for functional and structural reasons, few of them are likely to share a unified approach to adapting workforce policies to a global pandemic. Ad hoc personnel and workforce policies correlate with the persistence of gender inequity in the nuclear policy workforce – an observation that is likely to extend to policies formed in response to COVID-19. Women are more vulnerable to negative economic impacts of the current global pandemic due to pre-existing conditions of inequity^{iv}; policies developed for rapid response to pandemic conditions are unlikely to have considered these conditions and may have the knock-on effect of retrenching or worsening gender inequity.

To assess the gendered nature of the pandemic's impact on the nuclear policy workforce Gender Champions in Nuclear Policy conducted a voluntary survey, gathering data from 231 respondents between January 12th and March 15th, 2021. Key findings of this survey and extrapolated implications are discussed in this paper.

SURVEY METHODOLOGY

Questionnaire and Distribution

To gather data on the COVID-19 pandemic's impact on the nuclear policy community and assess differing outcomes across lines of gender, a questionnaire was designed consisting of 35 questions. Questions covered themes relevant to the impact of the pandemic and gender inequity as identified through a review of existing macroeconomic and social science research, including economic impacts, workforce retention, care work responsibilities, employer support, and professional development. Respondents were asked to provide demographic information including gender identity, racial identity, and years of professional experience and had the option of including personal narratives describing their experience of work during the pandemic.

Once constructed, this questionnaire was circulated through various professional networks in the nuclear policy community and made publicly available on Twitter and the Gender Champions in Nuclear Policy website. Respondents were able to access the survey and input data for a period of 3 months, during which 231 unique responses were gathered. Determining the total size of the nuclear policy workforce is a near impossibility due to a lack of baseline data and the difficulty of ensuring completeness; 231 responses is a modest sample size but robust enough to develop insights, the predictive power of which is likely to be stronger for better represented groups.

Demographics of Respondents

Among the 231 responses collected women were the best represented gender group, accounting for over half of all respondents (66.2%) while men made up more than one quarter (28.6%), few identified as gender variant or gender non-conforming (2.2%), and an additional small group preferred not to answer (2.6%) or preferred another option (0.4%). of note when considering findings and analysis.

Respondents were also asked to describe their racial identity broadly: a small number identified as Black, Indigenous, or People of Color (BIPOC) (8.7%), while most identified as “Non-BIPOC” (85.3%). A small percentage (6.1%) preferred not to answer.

For further analysis, respondents were asked which of the following best described the industry or sector that their employer represents: Non-Governmental Organization (37.2%), Private Sector or Government Contractor (28.6%), Academic Institution (12.6%), Other (9.5%), Consultancy (3.5%), Foundation or Philanthropy (3.0%), Grassroots or Advocacy Organization (2.6%), Full-time Student (1.7%), Media Outlet or Network (1.3%).

Among all respondents, regardless of racial or gender identity or the industry/sector occupied by their employer, most had ten or more years of professional experience (81.5%), most worked at organizations of 50 or more employees (57.6%), and nearly half worked at organizations affiliated with Gender Champions in Nuclear Policy (47.9%).

KEY FINDINGS

Immediate Economic Impacts

At the inception of this project, it was assumed that the nuclear policy community would be somewhat insulated from the economic impacts seen in larger macroeconomic analysis of the United States. The nuclear policy workforce is predominantly college educated and employed in professional settings where a shift to remote work was possible as workplaces adapted to the pandemic. In some cases (e.g., nuclear utility operators) employees were considered essential personnel or support for critical infrastructure and continued work as normal or with modifications other than remote work.

Setting out to assess differing impacts of the pandemic between gender groups, this project was built around the hypothesis that even if those impacts were muffled, they would be more pronounced among women than men. Findings gathered from analysis of 231 responses supported

this hypothesis: women were nearly twice as likely to have experienced economic hardship during the pandemic than men (33% of women vs 17% of men), over three times as likely to have had their work hours reduced than men (11% of women vs 3% of men), and over two times as likely to have seen pay cuts to themselves or colleagues than men (16% of women vs 6% of men). While the overall proportion of respondents facing negative economic impacts (excepting women who experienced economic hardship) is low relative to more hard-hit economic sectors (e.g., retail, food service, hospitality), the disparity in these figures is telling. For example, while 11% of men were separated from employment during the pandemic, that figure was 15% among women. In the nuclear policy community, women are much more likely than men to have experienced negative economic impacts due to the pandemic.

Compounding Existing Gender Inequity

A key area of exploration for this project was established structural inequities that challenge women's ability to participate in the workforce on even footing with their male colleagues. Research consistently shows that women bear a greater burden of unpaid care work (time spent caring for children and family or household members) than men.^v Spending a greater proportion of time on unpaid care work reduces the amount of time that women have available to manage professional obligations or engage in professional development activities, further marginalizing women in the workforce.

As discussed above, this survey found that women were over three times as likely to have had their work hours reduced than men. Additionally, among those whose work hours were reduced during the pandemic, 86% of women attributed that reduction to an increased burden of unpaid care work while 0% of men did. Further bearing out this finding, respondents were asked whether they had spent more time on unpaid care work during the pandemic. Among those who had, the median amount of time spent on care work was two times higher among women than men (on median, men spent 20% of their time on care work while women spent 40% of their time).

Overall, both women and men expressed great frustration at the difficulties of balancing personal and professional obligations. One in four respondents (25%) mentioned "work/life balance" as the single greatest challenge faced in their personal or professional life during the pandemic. While some measures were put in place to support employees shouldering a greater burden of care work, few employers made their staff aware of these benefits. The Families First Coronavirus Relief Act (FFCRA) required employers with 500 or fewer employees to notify their staff about the availability of paid leave during school closures due to COVID-19; less than 1 in 7 respondents (13%) had been made aware of this provision by their employer.

The unevenly distributed burden of unpaid care work is a well-established structural inequity across all sectors of the economy, and one that the nuclear policy community is not insulated from. Any effort to advance gender equity must consider this disparity as a central challenge to women's participation in the workforce.

Deepening Racial Injustice

Individuals identifying as Black, Indigenous, and People of Color (BIPOC) are widely considered to be an underrepresented minority group in the nuclear policy community. Following the killing of George Floyd on May 25, 2020 a large and growing group of civil society and non-governmental organizations (Organizations in Solidarity) came together to combat racism and discrimination in all of its manifestations and diversify the fields of peace and security, foreign policy, and national security.^{vi} As the nuclear policy community works to address racial injustice and inequity within itself, this project would be remiss in failing to address these dimensions of differential impacts during the COVID-19 pandemic.

Survey respondents were asked whether their racial identity could best be described as BIPOC, Non-BIPOC, Other, or if they preferred not to answer. Those who identified as BIPOC made up a relatively small proportion of total responses – likely a reflection of the composition of the nuclear policy community itself, but also a necessary caveat in considering this survey’s findings.

Overall, BIPOC respondents experienced dramatically worse outcomes during the pandemic than their non-BIPOC peers. Respondents who identified as BIPOC were nearly twice as likely to have been separated from employment (25% among BIPOC respondents vs 12.7% among non-BIPOC respondents) and more than twice as likely to have taken or seen colleagues take pay cuts (25% among BIPOC respondents vs 11.7% among non-BIPOC respondents). Nearly half of respondents who identified as BIPOC had experienced financial hardship during the pandemic – and almost 20% more than their non-BIPOC peers (45% among BIPOC respondents, 26.5% among non-BIPOC respondents), and nearly two in three were concerned that the pandemic would negatively affect their prospects for professional development or advancement.

These findings speak to a professional community that is struggling to address racial justice and inequity in meaningful terms. The COVID-19 pandemic challenged employers’ stability and resilience, but that burden was disproportionately shouldered by already marginalized employees.

Challenging Talent Retention

Maintaining a skilled and highly specialized workforce is essential to the integrity of the nuclear policy community. Many issues of interest to the community are highly technical in nature, and effective analysis, development, and implementation of policy requires depth of experience. For organizations operating in this environment, maintaining staff and cultivating specific skillsets are key to meeting strategic goals. The COVID-19 pandemic threatens to challenge the stability of the nuclear policy workforce by increasing the rate of attrition among employees, and to further retrench gender inequity as the workforce sheds more women than men.

Among respondents, one in three women and one in four men indicated that the pandemic had caused them to consider leaving the nuclear policy field or making a change of career. No baseline data about the average rate of employee attrition in the nuclear policy community exists, but these figures are high enough to challenge the field’s stability. Additionally, over 50% of women were concerned that the pandemic would have a negative impact on their prospects for professional development or advancement, while less than one third of men felt the same way. In line with this

finding, women were more than three times as likely to have lost access to professional development funds or resources due to the pandemic (16.4% of women vs 4.5% of men).

Personal perspective often drives career-related decision making; to better understand the outlook of the nuclear policy workforce, this survey asked respondents to answer several opinion-based questions. When asked if the pandemic had negatively affected their perception of the importance of their work, more students (35%) and early career respondents (42%) agreed than their mid-career (26%) and late career (21%) colleagues. Similarly, respondents were asked if they had considered leaving the field or making a change of career: agreement was most frequent among early career and mid-career respondents (36% among both groups) and lower among students (24%) and late career respondents (26%). Finally, agreement with the statement that respondents were concerned that the pandemic would have a negative impact on their prospects for career advancement or professional development correlated neatly with seniority: agreement was lowest among early career respondents (32%), then mid-career (50%), followed at the upper end by early career respondents (68%) and students (82%). These findings are highly concerning in that they represent some potential long-term impacts of the pandemic; while late career respondents are more likely to be established in their professional roles, they are also likely to be closer to retirement. Ideally their replacements would be promoted from within the mid-career group, which would in turn be bolstered by promotions of early career staff. Increased attrition among early career and mid-career members of the nuclear policy community threatens to destabilize the workforce by reducing the number of candidates available for advancement. Years down the road this jeopardizes the community's leadership through a dearth of candidates for senior roles, qualification for which often requires decades of experience in the field.

The challenge posed by these findings is nuanced; a wave of increased attrition threatens the very stability and operational continuity of organizations in the nuclear policy community. If organizations are unable to address the dissatisfaction of their employees, they run the risk of permanently losing staff that they might otherwise seek to cultivate for more senior roles. Further, the situation facing women in the nuclear policy community is far more dire. Loss of access to professional development opportunities challenges their ability to strengthen existing skills and knowledge, or to build upon their existing foundations – both of which are key to advancement in nuclear policy-oriented roles. Facing such obstacles may undermine women's desire to remain in the field, setting back progress in advancing gender equity while depriving the workforce of experienced and talented employees.

Impact on Students

As in many other issue areas, the interplay between practitioners, policy professionals, and academia is an essential source of innovation, forward momentum, and stability for the nuclear policy community. Academic institutions provide invaluable services through developing doctrine and thought on complex issues and providing essential training and education to students who go on to enter the field. Quality of education is a key concern for employers recruiting students into early career positions, but also a critical factor in solidifying students' interest in and access to the field. Students who can engage with the community through internships and fellowships and who are well educated in technical and policy issues are the lifeblood of the nuclear policy community. These

students ensure a steady flow of talent is available to replace attrition, bring fresh ideas to the community, and are an important source of diverse candidates.

During the pandemic, students have faced significant obstacles in maintaining meaningful engagement with the nuclear policy community. More than one third (35.3%) of students responding to this survey were separated from employment during the pandemic – the highest proportion among any career tranche. Additionally, nearly two thirds (64.6%) of students agreed that they had experienced financial hardship during the pandemic. These figures are highly significant as they directly challenge students’ ability to take advantage of opportunities like internships which offer a critical stepping stone into a professional community that can be difficult to access. Perhaps most shocking was that students were nearly unanimous in their assessment of the pandemic’s impact on the quality of their education: 94.1% of students agreed the quality of their education had been negatively impacted.

Taken in sum, these findings indicate that students are likely to be less able and less prepared for early career positions in the nuclear policy community at the conclusion of their education. Indeed their experience with separation from employment during the pandemic may induce them to seek alternative career paths altogether, an outcome which would again threaten the future of the workforce.

CONCLUSIONS

The nuclear policy community is currently on the precipice of a crisis; while its workforce has weathered the pandemic despite great duress, the worst may be yet to come. Progress on advancing gender equity in the community has proven to be fragile, with women disproportionately bearing the impacts of the pandemic. People identifying as BIPOC have similarly seen outsized negative effects, and their very presence in the community has been challenged as they face greater hurdles now than prior to the pandemic. Organizations have been strained, and that strain has followed existing fault lines in the community to deepen marginalization, inequity, and injustice. It is essential that employers, senior leaders, and executives in the community take notice of these impacts today and address them head on. Failure to do so ensures that the lagging effects of the pandemic will undermine and erode the workforce that generations of nuclear policy professionals have worked diligently to cultivate.

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