Special Lecture

International Women’s Day – March 8, 2021

Prof. Darlene Septelka

CM 250 – Construction and Culture
Introduction

- Welcome
- What is IWD
- The Masked Builder Unveiled
- Women in Construction: The State of the Industry in 2021
- Open Discussion

Darlene’s Photo - Women’s Day 2019, 737Project, Zhoushan, China
International Women's Day is a global day celebrating the social, economic, cultural and political achievements of women.

The day also marks a call to action for accelerating gender parity.

Marked annually on March 8th, International Women's Day (IWD) is one of the most important days of the year to:
- celebrate women's achievements
- raise awareness about women's equality
- lobby for accelerated gender parity
- fundraise for female-focused charities
International Women’s Day (IWD) grew out of efforts in the early 20th century to promote women’s rights, especially suffrage.

1900’s US
- Great unrest and critical debate was occurring amongst women. Women’s oppression and inequality was spurring women to become more vocal and active in campaigning for change.
- In 1908 - 15,000 women marched through New York City demanding shorter hours, better pay and voting rights.
- In 1909 - its campaign for female enfranchisement the first National Woman’s Day was held, which was highlighted by mass meetings across the United States; the day was observed until 1913.
- 1911 ‘Triangle Fire’ in New York City took the lives of more than 140 working women, most of them immigrants.
  - This disastrous event drew significant attention to working conditions and labor legislation in the United States that became a focus of subsequent International Women’s Day events.
  - 1911 also saw women’s Bread and Roses campaign which lead to strikes for working conditions and voting rights.

1910 Copenhagen
- A conference in Copenhagen was held with over 100 women from 17 countries, representing unions, socialist parties, working women’s clubs approved the formation of International Women’s Day.

1975
- International Women’s Day was celebrated for the first time by the United Nations in 1975.

2021
- Today, IWD belongs to all groups collectively everywhere. IWD is not country, group or organization specific.

UN 2021 Theme - Women in leadership: Achieving an equal future in a COVID-19 world
"We need women’s representation that reflects all women and girls in all their diversity and abilities, and across all cultural, social, economic and political situations. This is the only way we will get real societal change that incorporates women in decision-making as equals and benefits us all."

UN Women Executive Director Phumzile Mlambo-Ngcuka - International Women’s Day (8 March 2021)
The Masked Builder
The Call and The Challenge sculpture by Ken Spiering in Riverpoint Park in Spokane was erected in 1986 to commemorate Sacred Heart Medical Center’s 100th year anniversary.

The piece depicts **Mother Joseph**, a Sister of Providence, laying bricks.
Who is Mother Joseph?

- 16 April 1823 – 19 January 1902
- She was born Esther Pariseau
- She learned carpenter from her father, a carriage maker
- At 20 she joined the convent in Montreal, Canada
- Arrived in the Pacific NW in December 1856
- She designed and supervised construction of Providence Academy completed in 1874

Video – Student National History Day Competition Documentary by Junni Nuzzi

Video: https://youtu.be/8oxkh9ISv0o

Mother Joseph; Washington's first Architect and the story of Providence NHD Project by Olivia Nuzzi - YouTube
The Design-Builder

- Mother Joseph was named treasurer, with responsibility for construction of all the sisters’ buildings in the region.
- In this ministry over the next 25 years, she traveled thousands of miles by horseback, steamer, stagecoach, and rail to establish additional schools and hospitals and beg for the funds to support them.
- Popular stories about Mother Joseph on the construction sites abound, painting a vivid image of this spirited and gifted woman.
- One can well imagine her bouncing on wooden beams to test their strength, climbing up to inspect a roof, or working late into the night to rebuild a poorly made chimney.
- She was a knowledgeable and demanding supervisor, expecting perfection from both herself and those with whom she worked.
- Building design, property selection, negotiating with civic and church leaders, overseeing the laborers—Mother Joseph managed them all.
- Her finest building, Providence Academy in Vancouver, built in 1873, still stands as a testament to her aesthetic vision and workmanship.

Providence Academy, Vancouver WA completed in 1874 - School, orphanage, and governance offices for the Sisters - Georgian Revival, typical of the NW time period
Clad in habit, with hammer and saw in hand, she personally supervised the construction, sometimes ripping out faulty workmanship and redoing it herself.
In 1953 the American Institute of Architects named Mother Joseph “the first architect of the Pacific Northwest.

The West Coast Lumbermen’s Association recognized her as “the first White artisan to work with wood in the Pacific Northwest.

On 1 May 1980, in the Capitol in Washington, D.C., a statue of Mother Joseph was unveiled in National Statuary Hall, in Washington, D.C.

There is also a statue of her in the Washington State capitol in Olympia.
Further Reading

STORMING THE OLD BOYS’ CITADEL
TWO PIONEER WOMEN ARCHITECTS OF NINETEENTH CENTURY NORTH AMERICA

Carla Blank and Tania Martin

Storming the old boys' citadel: two pioneer women architects of nineteenth century North America - University of Washington (exlibrisgroup.com)
Construction Industry

- When you think of an industry dominated by men, construction might be one of the first that comes to mind.

- Historically, women have been confined primarily to **clerical roles** in the construction industry.

- When women first began entering the construction industry, they typically worked in offices doing paperwork or answering phones.

- Rarely were women seen on-site, handling materials or doing hard labor.

- What is the percentage of women in construction?
How are we doing?

In 1978, the Department of Labor laid out a 12 year vision for the year 2000 where women would makeup 25% of the construction workforce, and they declared the construction industry would no longer be considered a nontraditional career for women.

In 1999, based on my research, I estimated this would not happen to 2043.

My article was a call for action to academia and industry to address gender diversity in construction.

Today, 22 years after my article, 48 years later from DOL prediction, in 2020, construction overall is at 10.9%.

Today in our UW CM is at 22% women, in 1999 my research showed women enrollment in CM program was only 9% (2018 is 9-15%)

Is my past estimate possible?

- Overall, (2016-9.1%, 5y growth of 1.8%) - so now 2060?????
- UW CM, we are on good pace to reach 25%, but overall all universities is still 9-15%
### Table 318.30. Bachelor's, master's, and doctor's degrees conferred by postsecondary institutions, by sex of student and discipline division: 2017-18

<table>
<thead>
<tr>
<th>Discipline Division</th>
<th>% Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Architecture and related services</strong></td>
<td>47.1%</td>
</tr>
<tr>
<td>Architecture</td>
<td>46.3%</td>
</tr>
<tr>
<td>City/urban, community and regional planning</td>
<td>40.4%</td>
</tr>
<tr>
<td>Environmental design/architecture</td>
<td>44.7%</td>
</tr>
<tr>
<td>Interior architecture</td>
<td>91.1%</td>
</tr>
<tr>
<td>Landscape architecture</td>
<td>45.3%</td>
</tr>
<tr>
<td>Architectural history and criticism, general</td>
<td>52.5%</td>
</tr>
<tr>
<td>Architectural technology/technician</td>
<td>39.8%</td>
</tr>
<tr>
<td>Architectural and building sciences/technology</td>
<td>41.7%</td>
</tr>
<tr>
<td>Real estate development</td>
<td>18.3%</td>
</tr>
<tr>
<td>Architecture and related services, other</td>
<td>51.4%</td>
</tr>
<tr>
<td><strong>Business, management, marketing, and personal and culinary services</strong></td>
<td>47.0%</td>
</tr>
<tr>
<td>Project management</td>
<td>39.9%</td>
</tr>
<tr>
<td>Construction management</td>
<td>9.6%</td>
</tr>
<tr>
<td><strong>Engineering and engineering technologies</strong></td>
<td>21.0%</td>
</tr>
<tr>
<td>Engineering</td>
<td>22.2%</td>
</tr>
<tr>
<td>Engineering, general</td>
<td>24.2%</td>
</tr>
<tr>
<td>Pre-engineering</td>
<td>18.5%</td>
</tr>
<tr>
<td>Architectural engineering</td>
<td>34.4%</td>
</tr>
<tr>
<td>Civil engineering, general</td>
<td>25.5%</td>
</tr>
<tr>
<td>Structural engineering</td>
<td>25.0%</td>
</tr>
<tr>
<td>Civil engineering, other</td>
<td>22.2%</td>
</tr>
<tr>
<td>Construction engineering</td>
<td>15.0%</td>
</tr>
<tr>
<td>Industrial engineering</td>
<td>33.1%</td>
</tr>
<tr>
<td>Manufacturing engineering</td>
<td>15.1%</td>
</tr>
<tr>
<td><strong>Engineering technologies/construction trades/mechanics and repairers</strong></td>
<td>12.8%</td>
</tr>
<tr>
<td>Engineering technologies and engineering-related fields</td>
<td>13.0%</td>
</tr>
<tr>
<td>Engineering technology, general</td>
<td>9.5%</td>
</tr>
<tr>
<td>Architectural engineering technology/technician</td>
<td>17.8%</td>
</tr>
<tr>
<td>Civil engineering technology/technician</td>
<td>12.5%</td>
</tr>
<tr>
<td>Construction engineering technology/technician</td>
<td>9.9%</td>
</tr>
<tr>
<td><strong>Construction trades</strong></td>
<td>13.9%</td>
</tr>
<tr>
<td>Building/construction site management/manager</td>
<td>13.9%</td>
</tr>
</tbody>
</table>
Overall % Breakdown of Construction by Job Areas

Construction Overall Breakout – % of Women

Note Dec 2020 - Overall Construction Industry Women Represented 13% of the Workforce
Overall Construction Industry was 13%
Percentage of Women in the Construction Industry

Percentage of Women as of Dec 2020

- Residential building: 21.7%
- Nonresidential building: 15.1%

Non-Residential - % of Women as of Dec 2020

- Industrial building: 12.1%
- Commercial building: 15.8%
- Heavy and civil engineering construction: 10.4%
- Specialty trade contractors: 12.3%

Subcontractor - % of Women as of Dec 2020

- Building equipment contractors: 12.8%
- Electrical contractors: 11.4%
- Plumbing and HVAC contractors: 14.3%
- Other building equipment contractors: 10.9%
- Building finishing contractors: 13.8%
Overall Women in BE Professional Occupations

% of Women by Occupation 2020

- Facilities managers: 25.0%
- Construction managers: 8.4%
- Architectural and engineering managers: 9.5%
- Cost estimators: 15.0%
- Architects, except landscape and naval: 28.2%
- Civil engineers: 16.0%
- Industrial engineers, including health and safety: 23.4%
Overall Women in Field Occupations
4% in 2020

% of Women by Occupation 2020

- First-line supervisors of construction trades: 3.5%
- Carpet, floor, and tile installers: 3.2%
- Cement masons, concrete finishers, and stone masons: 3.9%
- Carpenters: 2.8%
- Construction equipment operators: 3.8%
- Construction laborers: 3.9%
- Drywall installers, ceiling tile installers, and drywall finishers: 5.8%
- Electricians: 3.1%
- Insulation workers: 2.9%
- Painters and paperhangers: 2.3%
- Plumbers, pipefitters, and steamfitters: 3.3%
- Roofers: 5.6%
- Construction and building inspectors: 11.9%
In the diversity-challenged world of construction, groundbreaking women are cracking glass ceilings and breaking the mold of people who build.
Of all the people working in construction, women comprise only 10.9 percent in 2020. Even smaller is the number of women on the front lines of a job site—only one for every 100 employees in the field. Considering that women make up 47 percent of all employed individuals, this means that the construction industry is only benefitting from about 1.25 percent of women in the workforce.
There are several factors that explain this enormous gender gap, from unconscious gender bias, to the lack of adequate training, to overall perceptions of women working in construction.

Despite these barriers, women continue to build their path in the construction industry.

According to Randstad, nearly one-third of companies promoted a woman to a senior position in 2018.

As new construction projects are expected to stabilize and return to low growth in 2021, and new construction industry jobs are expected to balloon by almost 2 million in 2022, companies are looking to recruit more women than ever before to bring their skill sets into the field.
Jobs Held by Women

Nearly 1 in 3 companies *promoted women to senior roles* in 2018

- **45%** Sales & Office
- **31%** Management
- **21%** Construction & Maintenance
- **1.5%** Service Occupations
- **1.4%** Transportation

76% of women in construction jobs *work off-site.*
Women-Owned Firms

13% of constructions firms are owned by women

- 64% growth in women owners from 2014 to 2019
- 9% of women-owned firms achieved revenues greater than $500,000

4% of new construction firms were launched by women last year.
Leadership Breakdown

Industry-wide, women comprised 7.5% of all construction managers in 2019.

44% of the top 100 contracting companies have women in executive roles.

16% employ women in C-level positions. 2 of them are CEOs.

Time as Leaders

While women have led the board for many years, there are growing numbers of women managers in the field.
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**Construction Managers**

- **5.4 years** average time in role
- 38% have held their role for less than a year.

**C-Level Executives**

- **7 years** average time in role
- 53% have held their role for less than a year.

The average tenure of women leaders in the industry is **15 years**.
Obstacles Women Face

**PAY GAP**
43% of organizations do not actively monitor gender pay gaps.

**ADVANCEMENT**
73% of women feel passed over for roles because of their gender.

**INJURY**
Women have a higher risk of workplace injury due to poorly-fitted equipment.

**DISCRIMINATION**
60% of gender discrimination victims in the workplace are women.

**EXCLUSION**
8 out of 10 women feel left out at company social events.

**ROLE MODELS**
47% of women have never worked with a manager who is a woman.
Inspiration from Women in Construction

“"To be productive, people have to feel included.”

Katie Coulson
Vice President, Skanska
An account manager for large projects and mentor to both women and men in diverse teams.

“I overcame that hurdle because I was patient and showed them I was chosen for this role for a reason.”

Jennifer Vides
Superintendent, Turner Construction
A young professional who became a project superintendent at only 26 years old.

“If you can show them how great a woman can be, then they start thinking many women can be great.”

Anna Jacobson
Senior Preconstruction Manager, Morley Builders
A 18-year field veteran, breast cancer survivor, and founder of a women’s peer mentorship group for construction.
The study shows that although women are still underrepresented, they are making significant progress as leaders in the industry.

A substantial portion of women executives and construction managers entered those roles in the last 5 years, suggesting that companies are more recently promoting women to leadership roles.

AEC companies and associations are increasing their efforts to promote women in their organizations and educate young women about the benefits of working in the industry.
Learning Resources for Women in Construction

- To enter a competitive and dangerous field like construction, women have a multitude of resources available to them that address their specific needs in the industry:

- Women’s Organizations provide mentorship, marketing and networking opportunities to help women who are new to the construction industry.
  - National Association of Women in Construction (NAWIC)
  - Women Construction Owners & Executives USA
Learning Resources for Women in Construction

- **Construction Courses**
  - Such as UW CM Program
  - Large construction companies collaborate with the local community to offer courses and boot-camp programs for young girls and any women interested in the industry.
  - Apprenticeship programs that strive to recruit women, prepare them for exams, and train them with job-specific skills.

- **Construction Forums and Conferences**
  - A number of conferences are held to celebrate and discuss the topic of women in construction.
  - NAWIC’s Annual Conference includes professionals seminars and workshops for women,
  - Groundbreaking Women in Construction conference provides management training and teaches women how to bridge pay gaps in their workplace.

- **Industry Blogs**
  - That aim to tackle issues of diversity, provide original research, highlight scholarship opportunities, and share personal stories and anecdotes.
  - Constructing Equality
  - Tradeswomen
Diversity Drives Performance - Studies

  - Although more diverse representation in the construction industry isn’t a reality today, a report by McKinsey & Co. reveals that the most gender-diverse companies are 25 percent more likely to achieve above-average profitability than companies with less diversity.
  - Report found that construction companies with more women in executive line roles than staff roles experienced above-average financial performance compared to those companies that didn’t.
  - When 30 percent or more of executive-level positions were filled by women, those companies had a 48 percent likelihood of outperforming their least-diverse competitors.

- Randstad UK – Women in Construction – The Race to Gender Equity 2019
  - Randstad found that women executives are more likely to occupy staff roles (14 percent) than line roles (7 percent).
  - This is in stark contrast to men in executive roles, with 33 percent operating as staff executives and 46 percent as line executives.
#ChooseToChallenge

- IWD 2021 campaign theme: #ChooseToChallenge
- A challenged world is an alert world. Individually, we’re all responsible for our own thoughts and actions - all day, every day.
- We can all choose to challenge and call out gender bias and inequality. We can all choose to seek out and celebrate women's achievements. Collectively, we can all help create an inclusive world.
- From challenge comes change, so let's all choose to challenge.
  - So, hand up high to show you're in
  - So strike the #ChooseToChallenge pose with your hand high to show your commitment to choose to challenge inequality, call out bias, question stereotypes, and help forge an inclusive world.

Video IWD: IWD 2021 campaign theme: #ChooseToChallenge (internationalwomensday.com)
2021 and beyond

- **Today – We can celebrate that great improvements have been made**
  - The world has witnessed a significant change and attitudinal shift in both women's and society's thoughts about women's equality.
  - With more women in the boardroom, greater equality in legislative rights, and an increased critical mass of women's visibility as impressive role models in every aspect of life, one could think that women have gained true equality.
  - We do have female astronauts, a US VP, and prime ministers, school girls are welcomed into university, women can work and have a family, women have real choices.

- **The Fact – There's no place for complacency!**
  - Some may feel that 'all the battles have been won for women, while many women from the 1970's know only too well the longevity and ingrained complexity of patriarchy.
  - The unfortunate facts:
    - Women are not paid equally to that of their male counterparts
    - Women still are not present in equal numbers in business or politics
    - Globally women's education, health and the violence against them is worse than that of men.
  - Sadly - According to the World Economic Forum none of us will see gender parity in our lifetimes, and nor likely will many of our children.
  - Gender parity will not be attained for almost a century.
IWD Closing

- So make a difference, think globally and act locally!
- Make everyday International Women's Day.
- Do your bit to ensure that the future for girls is bright, equal, safe and rewarding.
- AEC companies are embracing diversity and working to close the gender gap.

There has never been a better time to be a woman in construction!
Employment of construction managers is projected to grow 8 percent from 2019 to 2029, much faster than the average for all occupations. Those with a bachelor’s degree in construction science, construction management, or civil engineering, coupled with construction experience, should have the best job prospects.
Discussion and Q&A

The foundation for equality within our industry has been poured, and together we can construct a world built by men and women — working side by side.
Sources

- Catalyst
- JLL
- Randstad
- JBKnowledge
- GWIC
- NAWIC
- WCOEUSA
- Constructing Equality
- Tradeswomen