

**TO:** HONORABLE MAYOR  
AND CITY COUNCIL

**FROM:** District 10 YLC

**SUBJECT: GREEN SKILLS EDUCATION  
PROGRAMS**

**DATE:** March 1, 2023

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Approved

Date

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## INFORMATION

### **SUBJECT: GREEN SKILLS EDUCATION PROGRAMS**

Green jobs are on the rise with climate change transforming every business and “Green Skills” becoming an absolute necessity. However, it is projected that in five years the demand for green skills will outpace the supply, triggering an urgent need to equip our workforce for a green transition through education programs to close this gap. We must do this by investing in up-skilling the existing workforce, enabling the next generation, and making it inclusive with the goal to provide opportunities to the most vulnerable among us.

## RECOMMENDATION

San José’s [Department of Economic and Workforce Development](#) should build training programs for green jobs to help people get started, move towards a green economy, and learn more about the environmental field. Similar initiatives are driven by the San Francisco Environmental Department<sup>1</sup>.

- A. **Green Job Resources and Training Programs:** The [San Jose Center Workshops](#) should include programs to gain comprehensive skills for environmental awareness in areas like construction/de-construction, solar, energy, weather, and re-use.
- B. **Partner with local colleges:** to provide opportunities to acquire green skills through a comprehensive list of green certification and degree programs with discounts for the vulnerable.
- C. **Youth-focused Programs:** Provide training and hands-on internships for youth ages 14-18 to be involved in projects like recycling, landscaping, materials sorting, and energy conservation, clean city initiatives.
- D. **Low-income families:** Provide 8–10-week courses to low-income and the underprivileged an opportunity to contribute towards sustainability initiatives to work in

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<sup>1</sup> <https://sfenvironment.org/training-programs-environmental-jobs-green-jobs-in-san-francisco>

green jobs like zero waste, environmental and food justice, toxic reductions, and natural resource conservation.

## **BACKGROUND**

### **Definitions:**

- A. **Green Economy**<sup>2</sup>: “The green economy is defined as one in which value and growth are maximized across the whole economy, while natural assets are managed sustainably. Such an economy would be supported and enabled by a thriving low-carbon and environmental goods and services sector. Environmental damage would be reduced, while energy security, resource efficiency, and resilience to climate change would all be increased.”
- B. **Green Skills**: these are skills that enable the environmental sustainability of economic activities. Skills that contribute to reducing pollution or conserving natural resources.
- C. **Green Jobs**: these are occupations that cannot be performed without extensive knowledge of green skills.
- D. **Green Talent**<sup>3</sup>: “We define green talent as someone who either has at least one skill explicitly listed on their profile that our expert taxonomists classified as a “green” skill, and/or works in a job that we consider a “green” job.”

Post-pandemic, the “Great Reshuffle”<sup>4</sup> is taking place where it’s said “everyone is rethinking everything” with hiring for green jobs gaining traction. While currently the demand and the supply for green jobs match, by 2026 that won’t be the case and there will be a need for the workforce to level up their green skills.

According to LinkedIn’s “Global Green Skills” report<sup>5</sup> from their 800M+ members, the share of workers with at least one green skill, known as “green talent,” has grown 38.5% worldwide from 9.6% in 2015 to 13.3% in 2021. According to the LinkedIn Green Jobs report, green jobs grew at an annual rate of 8% between 2015 and 2021, while the talent pool grew at only 6%. Another data point in this study indicates for every 10,000 workers leaving a non-green job, only 1 is moving into a green job.

We have a chicken and egg problem! It’s challenging for companies to invest in green projects if there aren’t enough workers with the skills to do the job, likewise, it’s also difficult to attract workers to jobs that need training if they’re not confident there will be jobs for them on the other side. Most of these sustainability and green jobs require creative problem-solving and technical skills. While some of these skills can be learned on the job, targeting qualified job applicants requires effective and accessible training opportunities. It means we need a shift in talent towards

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<sup>2</sup> <https://www.greenbuildingadvisor.com/article/filling-the-green-skills-gap>

<sup>3</sup> <https://www.weforum.org/agenda/2021/09/sectors-where-green-jobs-are-growing-in-demand/>

<sup>4</sup> <https://www.linkedin.com/pulse/navigating-great-reshuffle-ryan-roslansky/>

<sup>5</sup> <https://www.linkedin.com/pulse/linkedin-global-green-skills-report-shows-gap-between-karin-kimbrough/>

“green skills”. For the most part, we don’t have to invent new careers but instead provide a path to upskill their existing expertise allowing the workforce to change roles as the work evolves.

## **ANALYSIS**

On September 16, 2022, Governor Newsom signed the most aggressive climate measures<sup>6</sup> set to create 4 million new jobs over the next two decades. The goals are to cut air pollution by 60%, reduce state oil consumption by 91%, save California \$23 billion caused by pollution, reduce fossil use in buildings and transportation by 92%, and reduce refinery pollution by 94%. Based on “The Green Economy Post”<sup>7</sup>, the Bay area is the world’s green economy hotspot with 26% of the businesses in California contributing to a growing green economy and more than 75,000 jobs – accounting for 28% of all green jobs in the state.

Governments play a crucial role in the success of a green economic transformation. As a coalition, we need to develop an understanding, based on the data in City of San Jose about evolving green jobs and the green skills needed for them. A policy and a plan are required to tackle this need working towards the goals defined above. Here are a few suggestions on how to get started:

**A. Up-skill the existing workforce with sustainability-focused skills focusing on the unemployed:**

The greening trend extends across all demographics and age ranges. While next-gen - millennials and Gen Z are leading the % of green talent, we need to ensure that experienced professionals aren’t excluded. That’s where upskilling helps. Upskilling isn’t about transferring to a new job, instead, it’s taking advantage of the existing knowledge and experience they already have and enhancing it. As a part of the San Jose Workforce Development programs, we should offer workshops and training to encourage the workforce by investing in building their skills for green talent transition. Many times, mid-career or the unemployed workforce don’t have the time to reinvest in full-fledged degrees. They should be educated on the various options to consider like micro-credentials, certifications, etc. by partnering with local universities or institutions.

**B. Create a strong foundation by tapping into younger generations as key partners:**

There is a great opportunity to engage our youth to specialize in green education who have the potential to invest twice as much as compared to baby boomers. There is a pressing need to identify key guidelines to support the youth with green skills development through training and education. This should include appropriate pathways through mentorships, apprenticeships, traineeships, etc. Another aspect involves updating the existing curriculum in schools and colleges with new knowledge and studies on the

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<sup>6</sup> <https://www.gov.ca.gov/2022/09/16/governor-newsom-signs-sweeping-climate-measures-ushering-in-new-era-of-world-leading-climate-action/>

<sup>7</sup> <http://greeneconomypost.com/green-resource-center/green-jobs-careers/find-green-jobs-state/find-green-jobs-california/green-jobs-northern-california>

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green economy. If empowered and proactively educated early on by bringing awareness through workshops or webinars, the youth will act as agents of positive change with sustainable education.

**C. Create equal green opportunities for all diverse groups:**

“Education is an important means to Equality” and we need to ensure the green transition is not just inclusive, but also a sustainable one. We have so many gaps across income, gender, and education levels. Awareness programs and short courses take up less time and are much less expensive than college degree programs, helping lower-income, homeless, and underprivileged individuals to train for sustainability jobs. Other options include partnering with the low-income community housing and shelter homes to design short 8–10-week courses to encourage them to try out jobs in various sustainability areas.

**CONCLUSION**

Green jobs exist in varying shapes, sizes, and degrees and require green skills. Based on LinkedIn’s Global Green Skills 2022 Report<sup>8</sup>, more than 10% of job postings require at least one green skill with sustainable development topping the skills list at 27.6%, followed by environmental remediation and policy at 8.8%, and renewable energy at 5.4%. By focusing on these top green skills, San Jose city can increase green talent, provide more employment opportunities, and help the underprivileged and homeless. Green skills aren’t just about being aware of the environment but understanding how it can be used to improve our lives while protecting our planet. As our economic turmoil is adding pressure to find new ways to do more with less, and as we develop our green skills, it’s time to change our mindset with – a “green attitude”.

The time for action is now!

ALEXANDER LEE  
San José District 10 Youth Commissioner

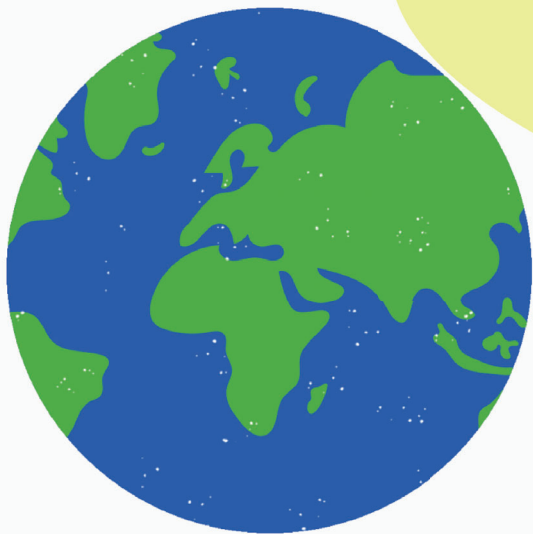
For questions, please contact Lizzie Nolan, Senior Librarian, at (408) 808-2000.



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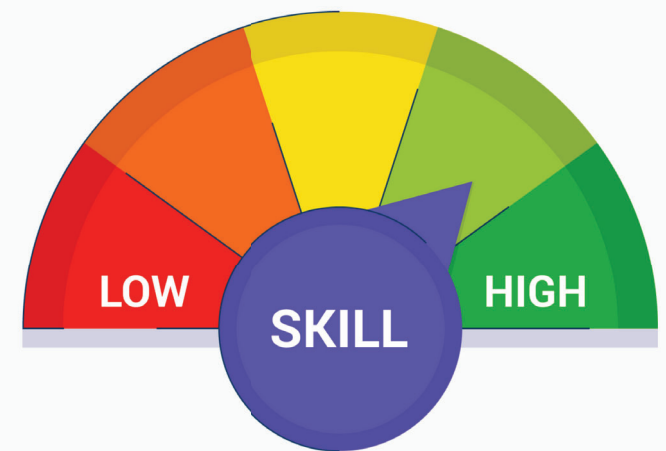
<sup>8</sup> <https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/global-green-skills-report/global-green-skills-report-pdf/li-green-economy-report-2022-annex.pdf>

# Green Skills Education Program



# Background

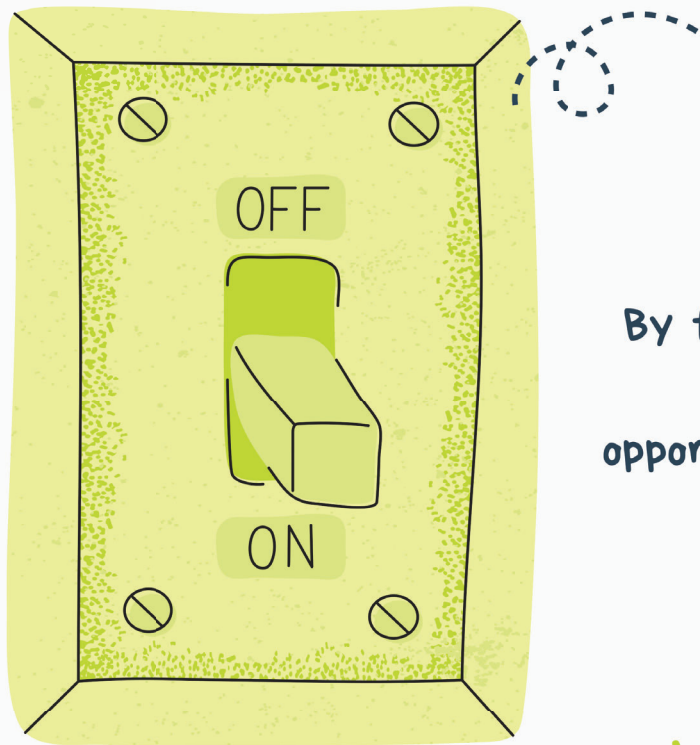
- Green jobs grew at an annual rate of 8% between 2015 and 2021, while the talent pool grew at only 6%
- For every 10,000 workers leaving a not-green job, only 1 is moving into a green job.
- 5 years' time green skills will outpace the supply
- Bay area is the world's green economy hotspot
  - 26% of the businesses in California contributing to a growing green economy
  - >75,000 jobs accounting for 28% of all green jobs in the state.



# Recommendation



- Up-skill the existing workforce with sustainability-focused skills focusing on up-skilling existing workforce and the unemployed
- Create a strong foundation by tapping into younger generations as key partners
- San Jose Economic and workforce department can help build training programs
  - Local colleges
  - Youth-focused
  - Low income families



# Conclusion

By focusing on these top green skills, San Jose city can increase green talent, provide more employment opportunities, and help the underprivileged and homeless





# Q&A

Feel free to ask any questions about our memorandums!

