# The future of work relies on solid foundations to sustain human progress

To reinvent themselves, workers must be able to access information and resources that allow them to acquire new skills, enter new job markets and secure products and services that help stabilize their otherwise dislocated and changing lives.

Overcoming barriers to such access is inclusion in action.

We've started by measuring Social Progress in San Jose
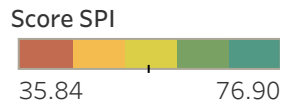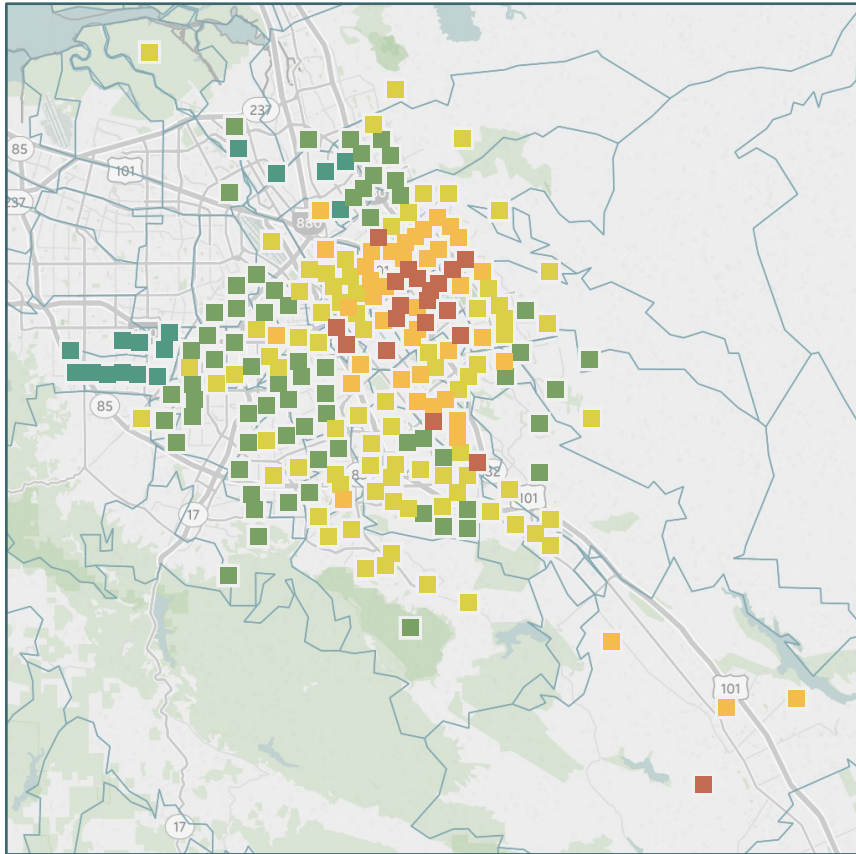
Basic Human Needs

Nutrition & Basic Medical Care

Do people have enough food to eat and are they receiving basic medical care?

Water & Sanitation

Can people drink water and keep themselves clean without getting sick?

Shelter

Do people have adequate housing with basic utilities?

Personal Safety

Do people feel safe?

Foundations of Wellbeing

Access to Basic Knowledge

Do people have access to an educational foundation?

Access to Information & Communications

Can people freely access ideas and information from anywhere in the world?

Health & Wellness

Do people live long and healthy lives?

Environmental Quality

Is this society using its resources so they will be available to future generations?

Opportunity

Personal Rights

Are people's rights as individuals protected?

Personal Freedom & Choice

Are people free to make their own life choices?

Inclusiveness

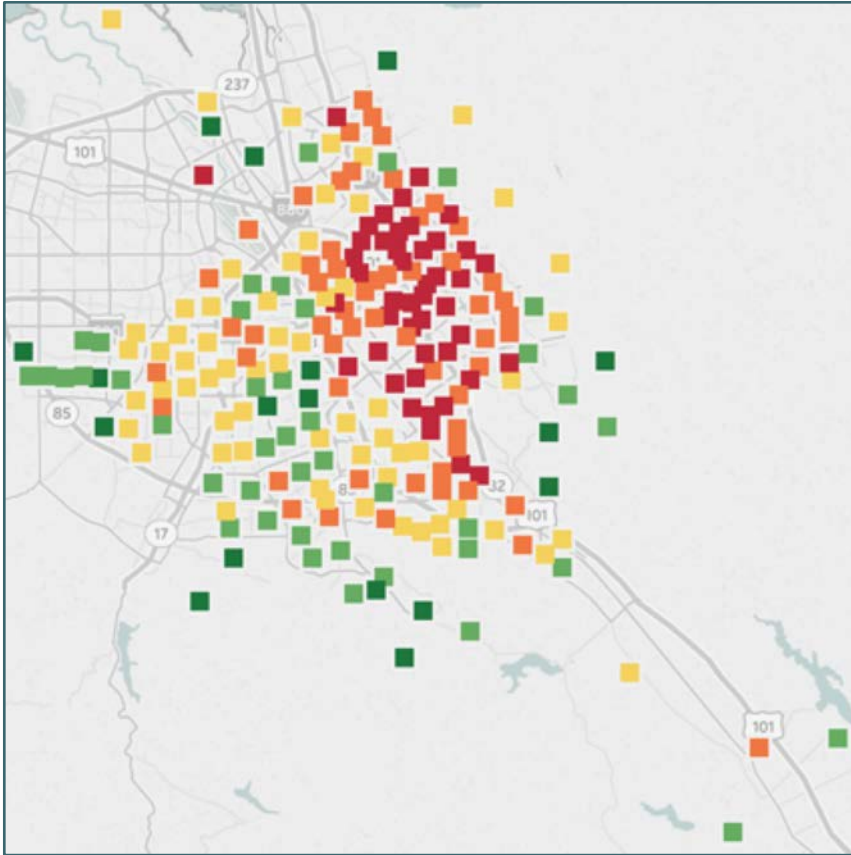Is no one excluded from the opportunity to be a contributing member of society?

Access to Advanced Education

Do people have the opportunity to access the world's most advanced knowledge?

Score SPI

35.84   76.90

SOCIAL PROGRESS IMPERATIVE

And complemented that with occupational and skills profiles for each census tract

Management - Personnel

We've developed an analysis of over 35 skills related to existing occupations most prevalent in San Jose's current labor market.

SOCIAL PROGRESS IMPERATIVE

We measured the automation risk for each census tract
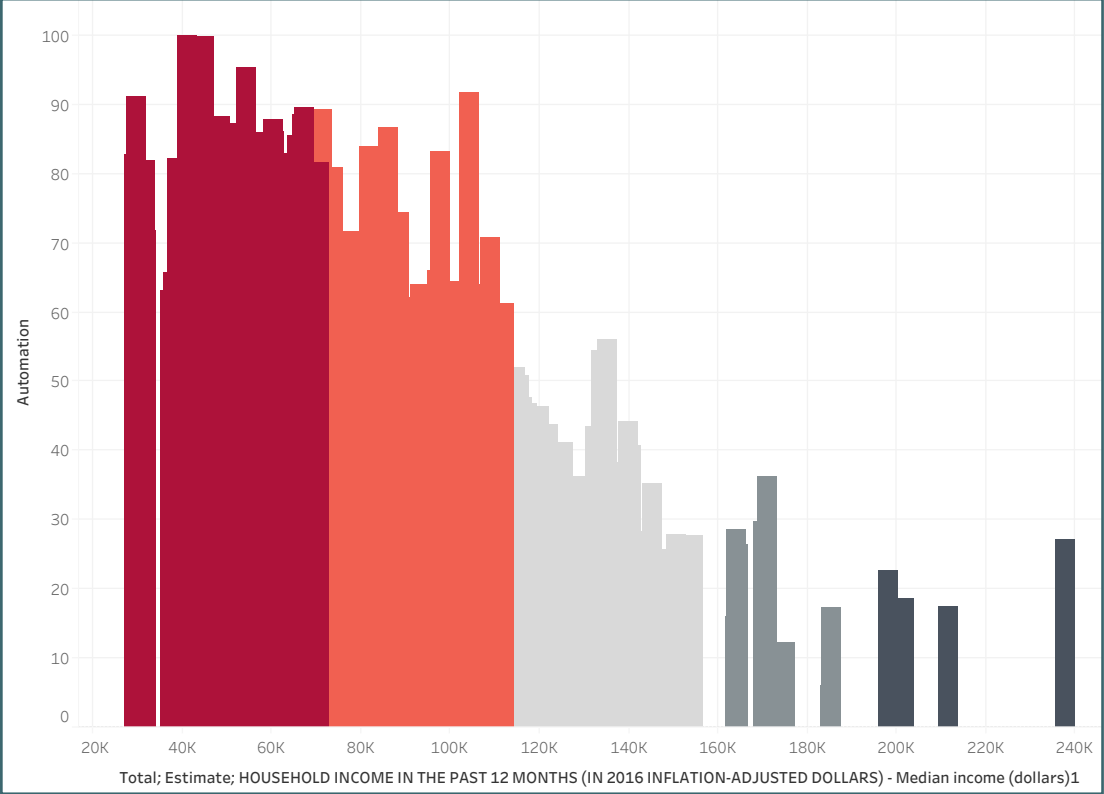

Risk of automation: − to +
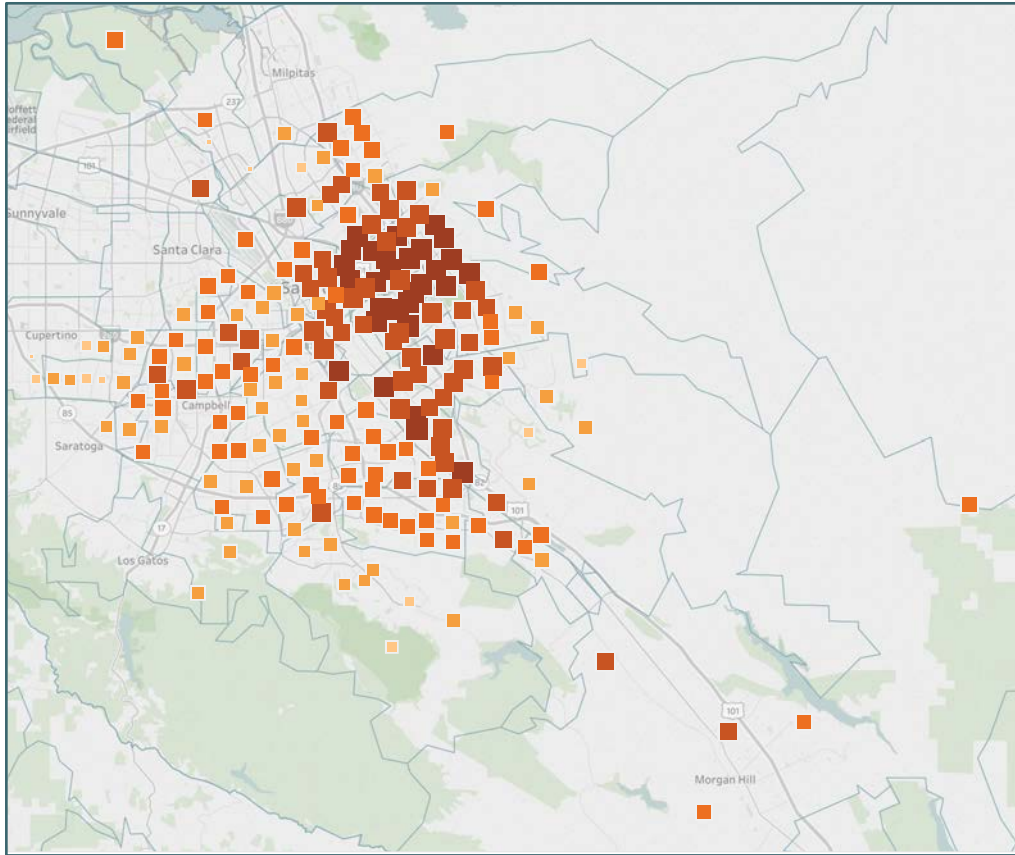
Technology will continue to substitute workers in both routine manual and cognitive tasks with ever more capable robotics and algorithms amplified by artificial intelligence. What we have identified are the places of the city that will struggle most with the technological change.
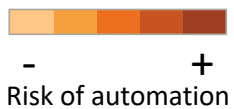
* Based on the methodology of Frey & Osborne (2013) "The future of employment: how susceptible are jobs to computerisation?".

SOCIAL
PROGRESS
IMPERATIVE

As other research has found, there is a strong and negative relation between income and the risk of automation

Automation

Total; Estimate; HOUSEHOLD INCOME IN THE PAST 12 MONTHS (IN 2016 INFLATION-ADJUSTED DOLLARS) - Median income (dollars)1
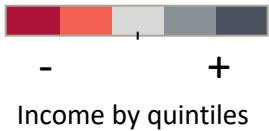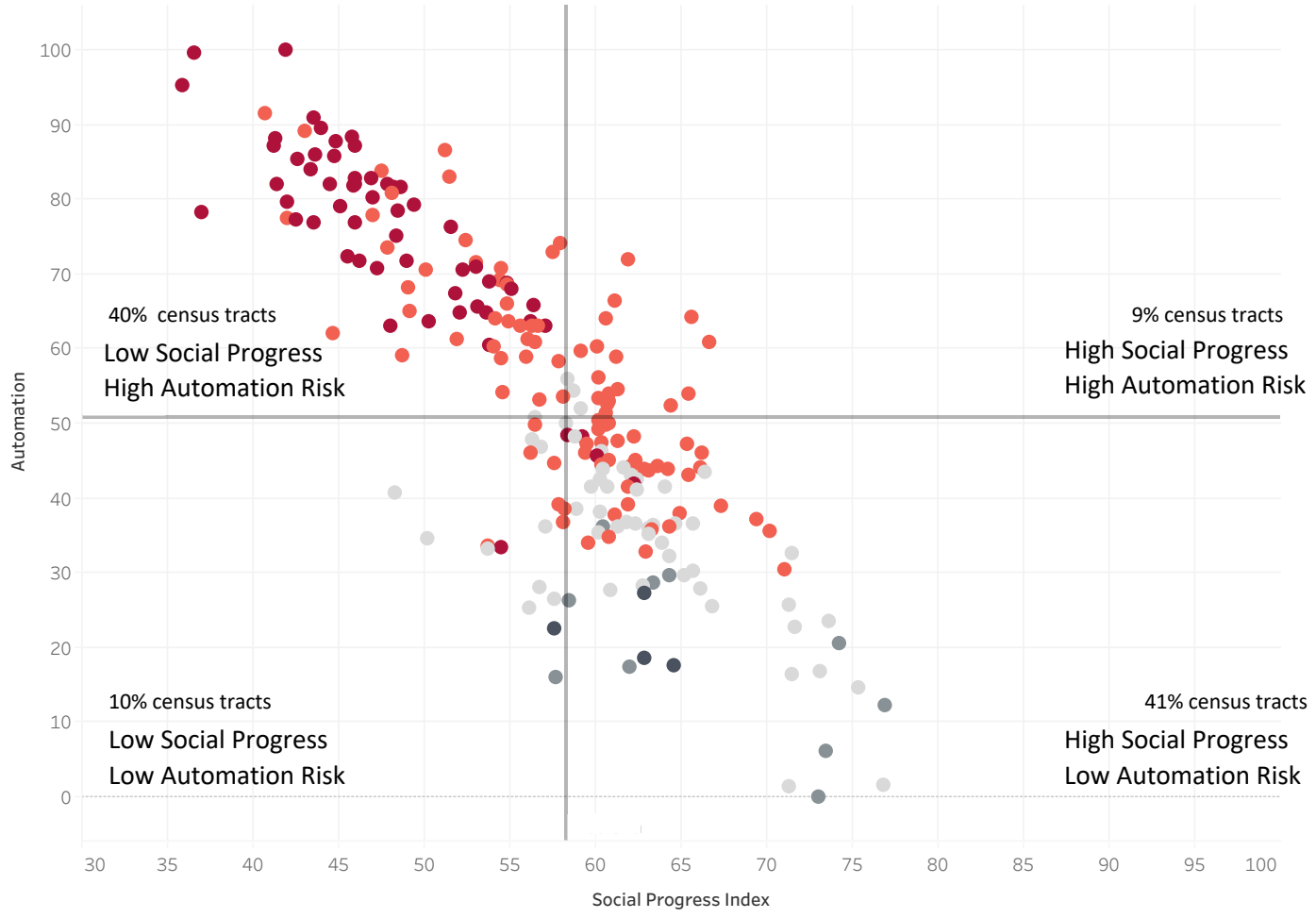
Income by quintiles

An overwhelming majority of census tracts are vulnerable to automation. Some areas earning just 40k annually are just as vulnerable to automation as those averaging over 100k.

As a consequence, we can expect a widening gap between incomes.

SOCIAL
PROGRESS
IMPERATIVE

But the impacts go beyond income. Technological change is a challenge to the quality of life in San Jose.

40% census tracts
Low Social Progress
High Automation Risk

9% census tracts
High Social Progress
High Automation Risk

10% census tracts
Low Social Progress
Low Automation Risk

41% census tracts
High Social Progress
Low Automation Risk

Automation

Social Progress Index

Income by quintiles

−   +

SOCIAL
PROGRESS
IMPERATIVE

However our platform helps to prioritize the parts of the city with the best conditions to re-adapt to the new technological reality.
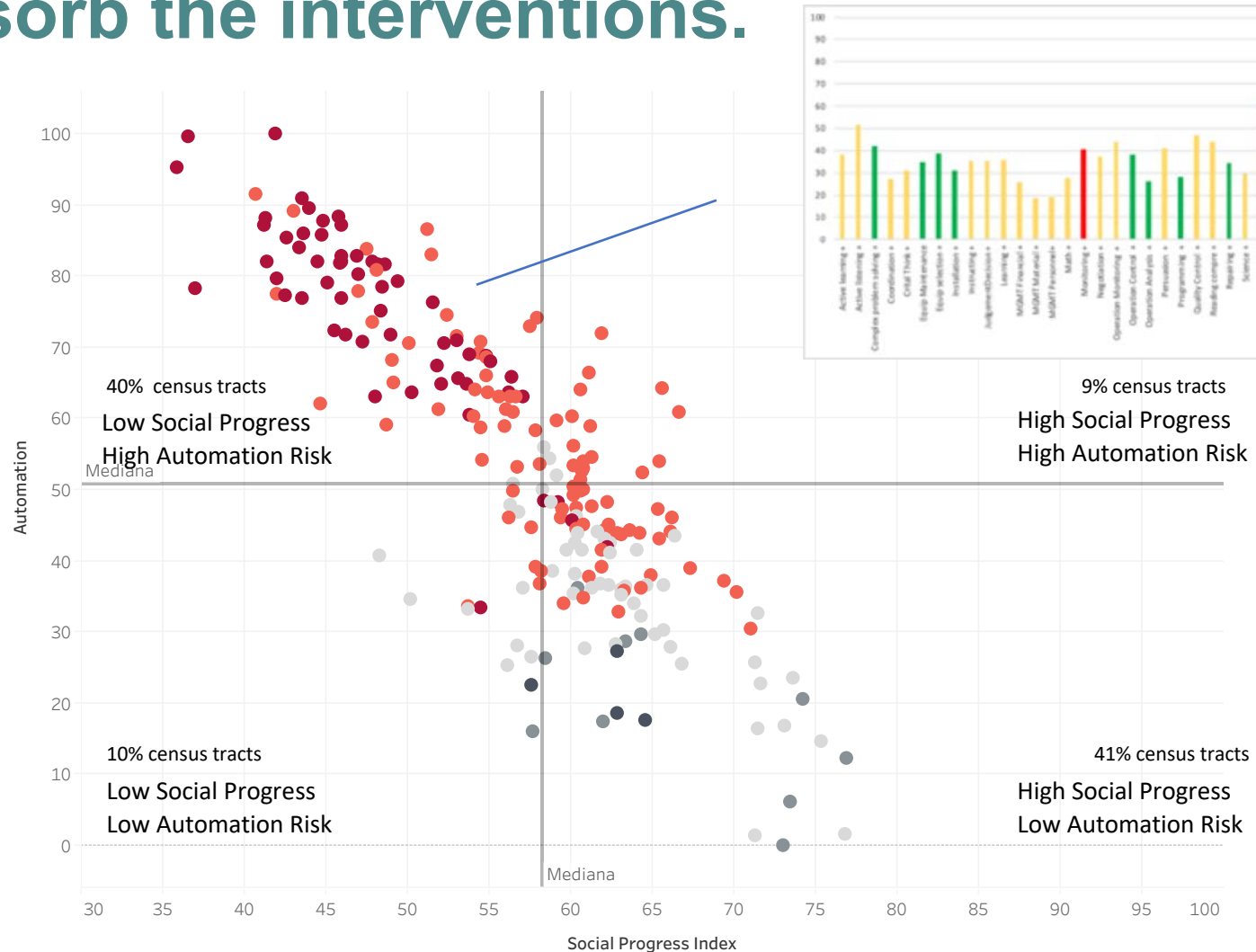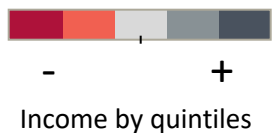

SOCIAL PROGRESS IMPERATIVE
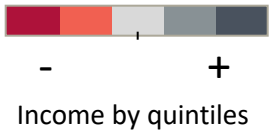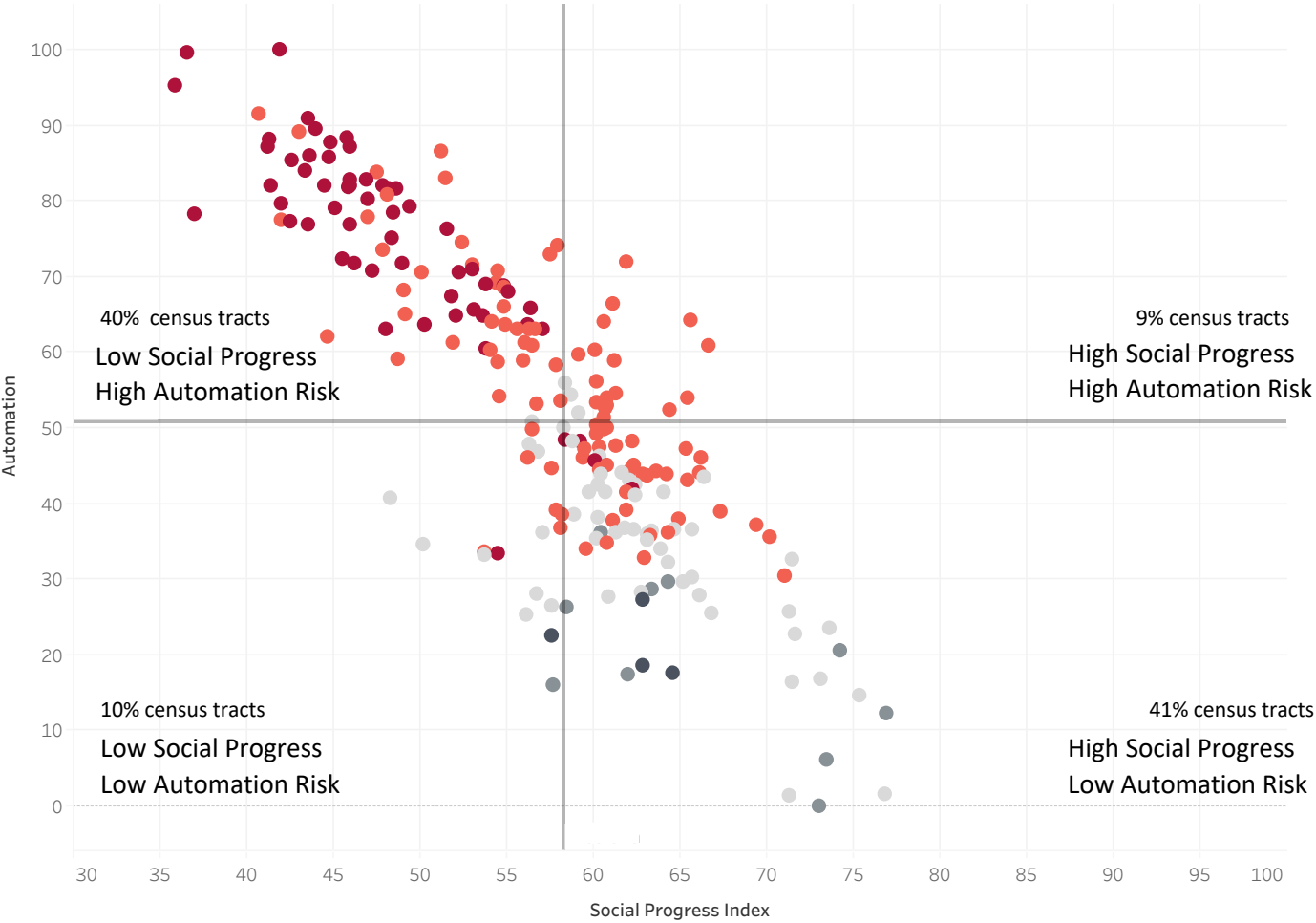
This is because SPI is identifying multiple factors that are affecting the distribution of skills and consequently the risks of automation

Firms

City

Household

Individuals

SOCIAL PROGRESS IMPERATIVE
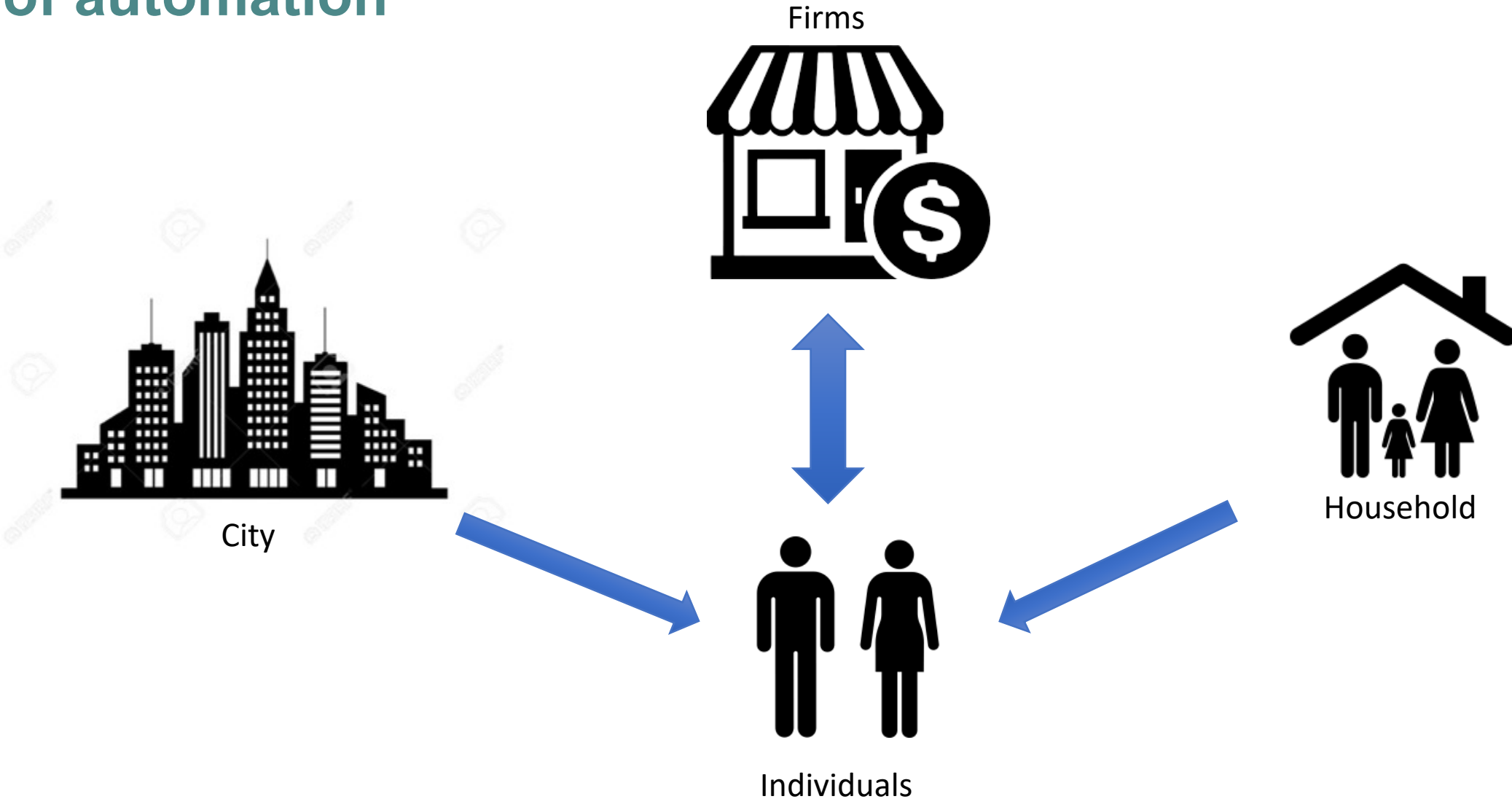
Integrating the city's SPI with the skills tool helps prioritize interventions, as well as assess that community's resilience and ability to absorb the interventions.
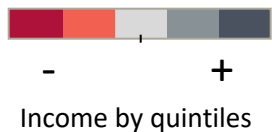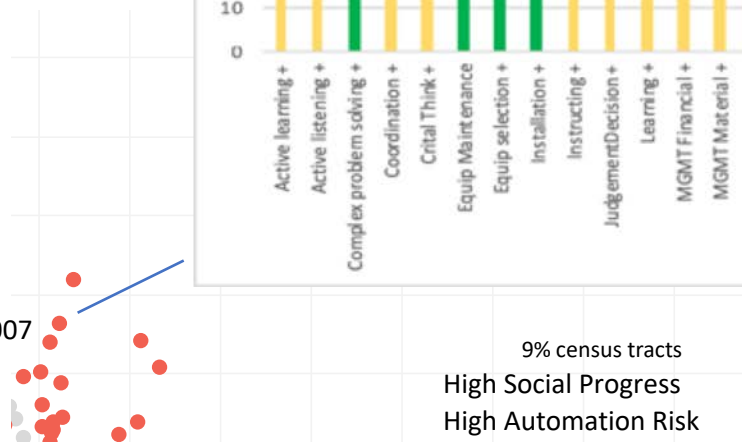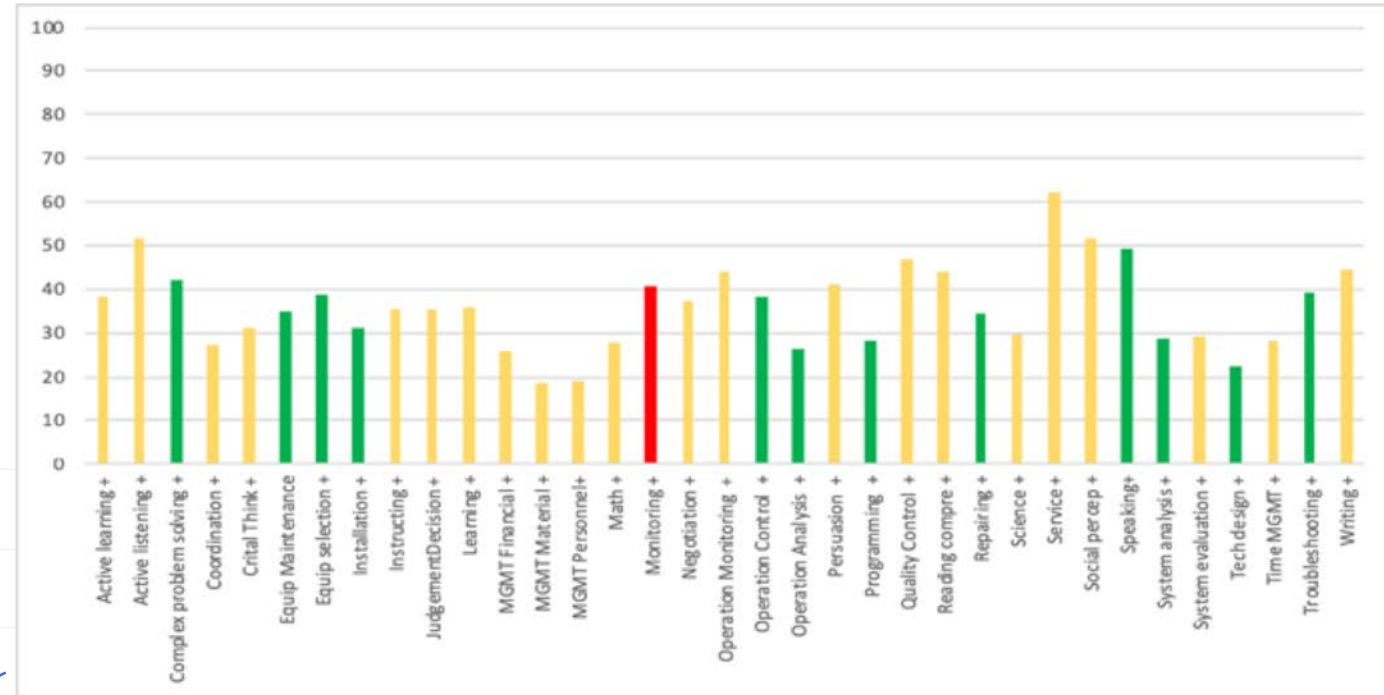
In this way we can look for the Census Tracts with the best conditions.

Example: developing Computer User Support Specialists, one of the fast growing occupations in the city.

Income by quintiles

40% census tracts
Low Social Progress
High Automation Risk

9% census tracts
High Social Progress
High Automation Risk

10% census tracts
Low Social Progress
Low Automation Risk

41% census tracts
High Social Progress
Low Automation Risk

Automation

Social Progress Index

Mediana

SOCIAL PROGRESS IMPERATIVE

We have generated skills profiles for 226 census tracts, and identified the most critical skills for specific occupations

Here we can see, that for this Census Tract, the **green bars** are the skills that need to be prioritized specifically for Computer User Support Specialists.

Census Tract: 6085505007

9% census tracts
High Social Progress
High Automation Risk

- +

Income by quintiles
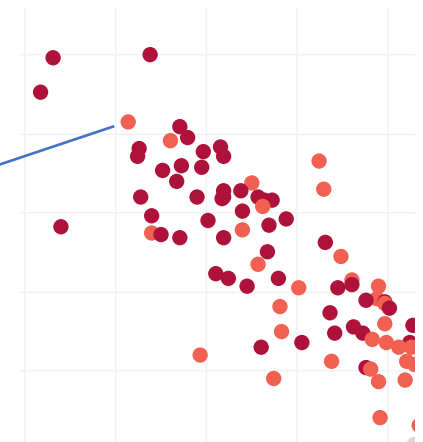
SOCIAL
PROGRESS
IMPERATIVE

The strategies and efforts change across geographies, but also the temporality of the success

By choosing Census Tracts with lower levels of SPI the challenges for the development of the skills needed for Computer User Support Specialists are bigger and the impact could be slow.
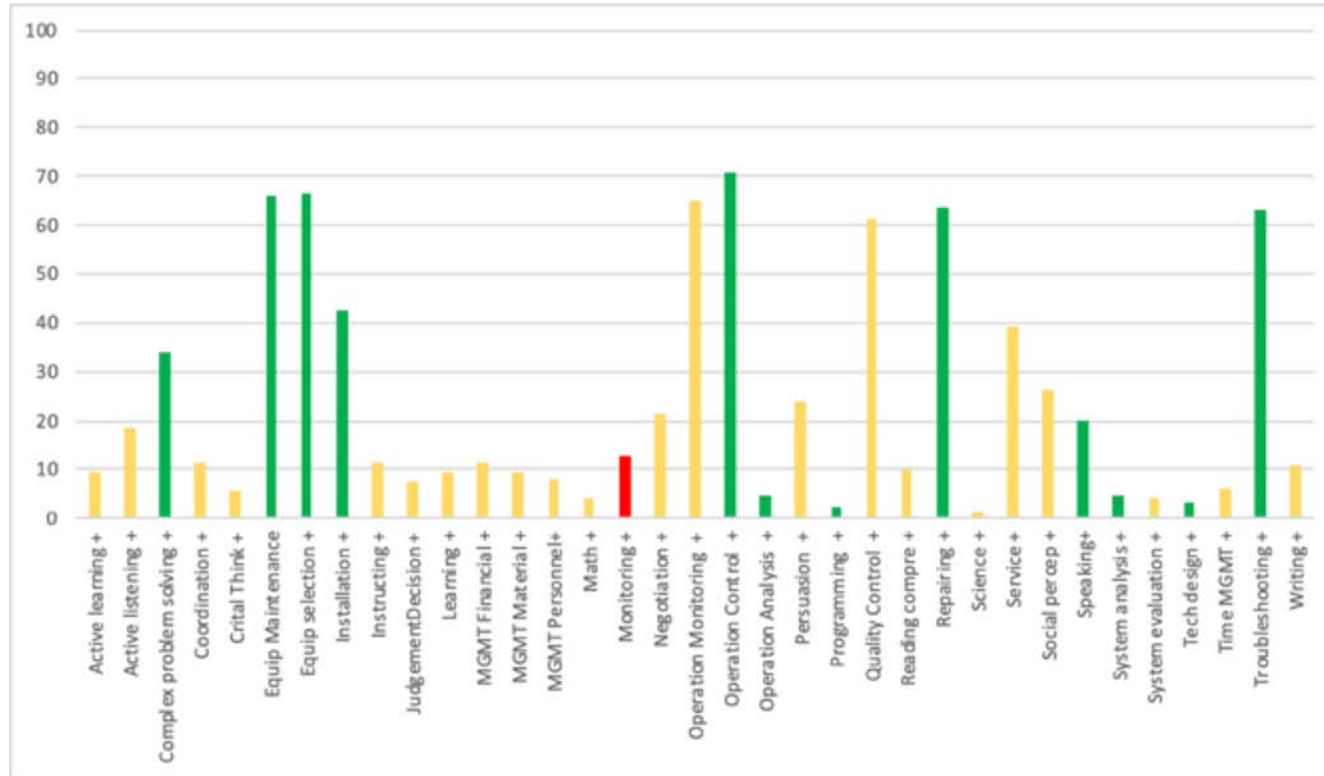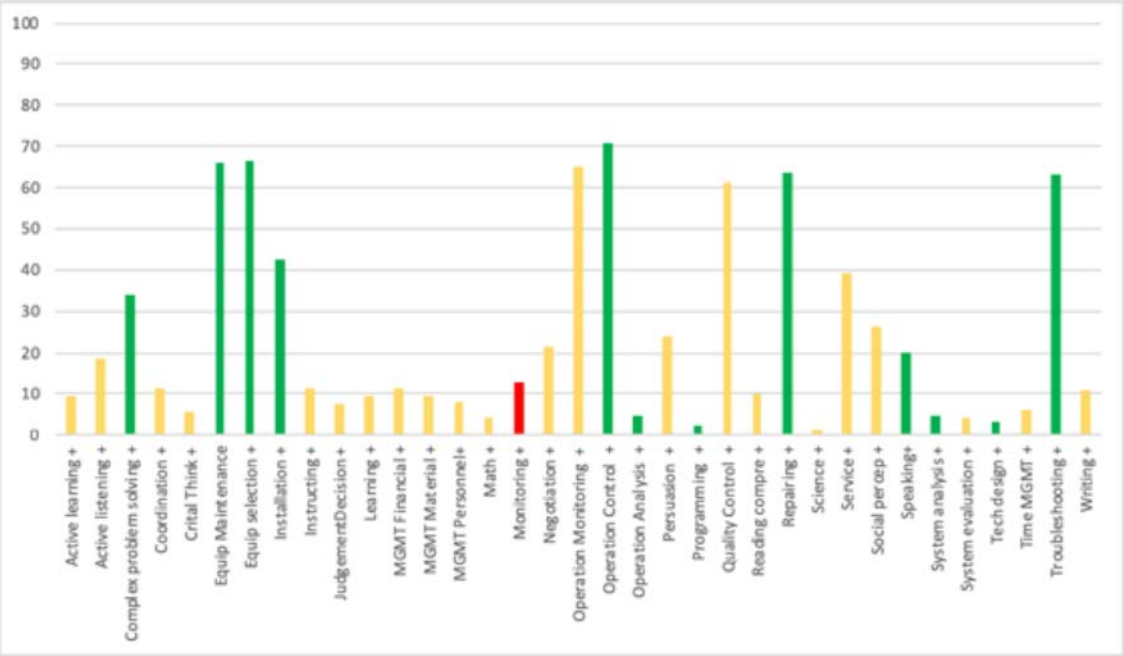

40% census tracts
Low Social Progress
High Automation Risk

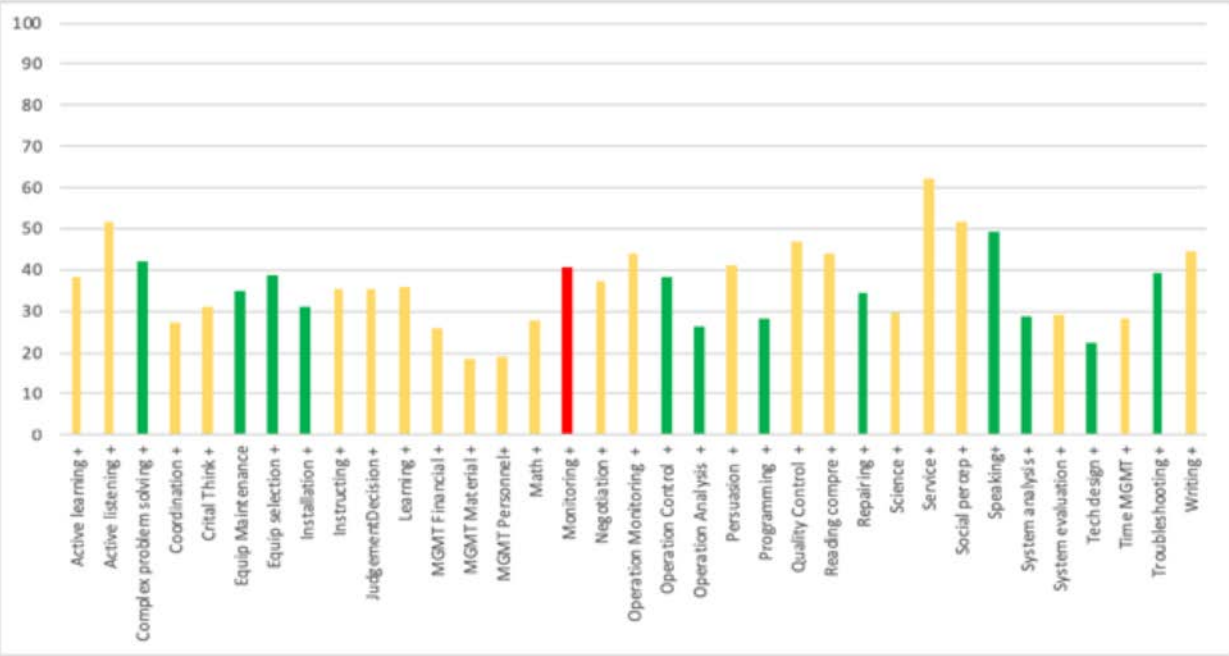−   +

Income by quintiles

SOCIAL
PROGRESS
IMPERATIVE

Same occupation different strategies
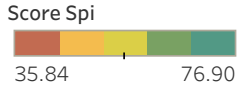

Low Social Progress
High Automation Risk

High Social Progress
High Automation Risk

Computer User Support Specialists

SOCIAL
PROGRESS
IMPERATIVE

Moreover this data tool can help us to track the risk in specific populations like female-headed households or areas of linguistic isolation

Percent; Estimate; HOUSEHOLD TYPE - With children under 18 years - Other family: - Female householder, no husband present

Linguistic Isolation1

Score Spi
35.84   76.90

SOCIAL
PROGRESS
IMPERATIVE
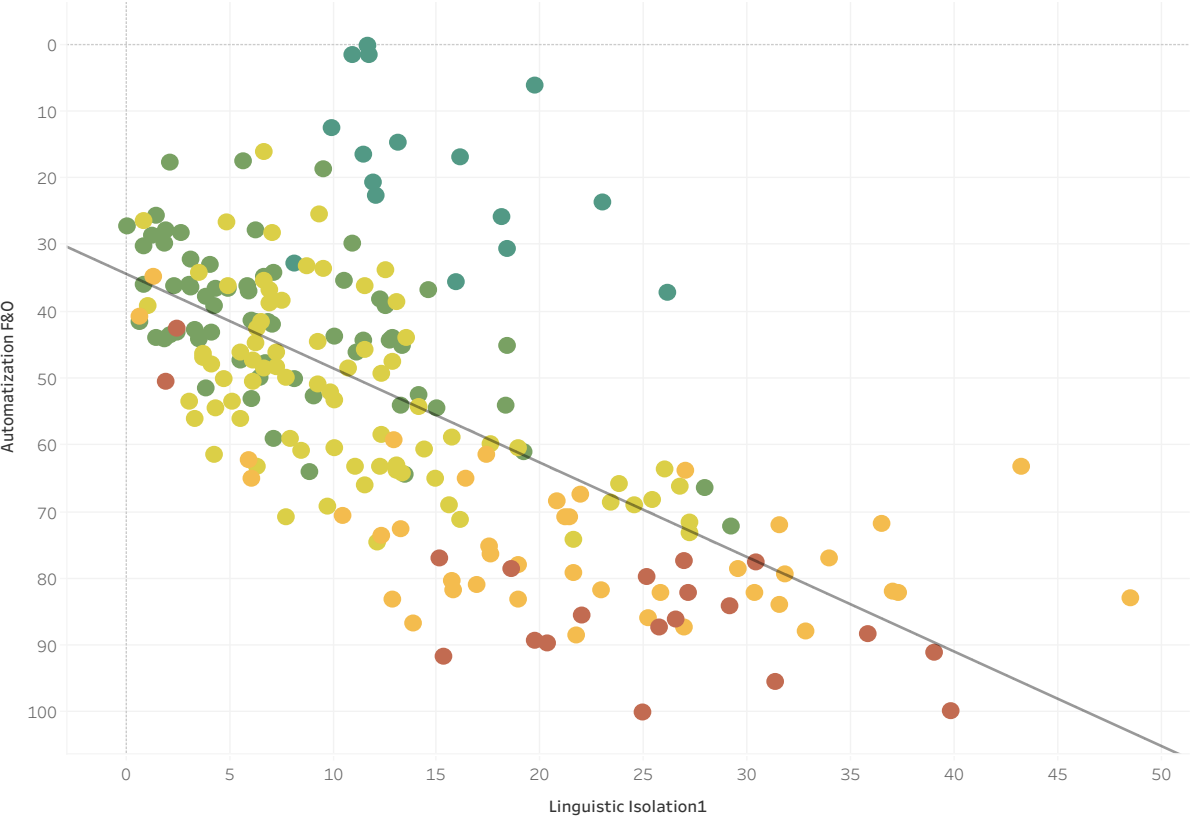
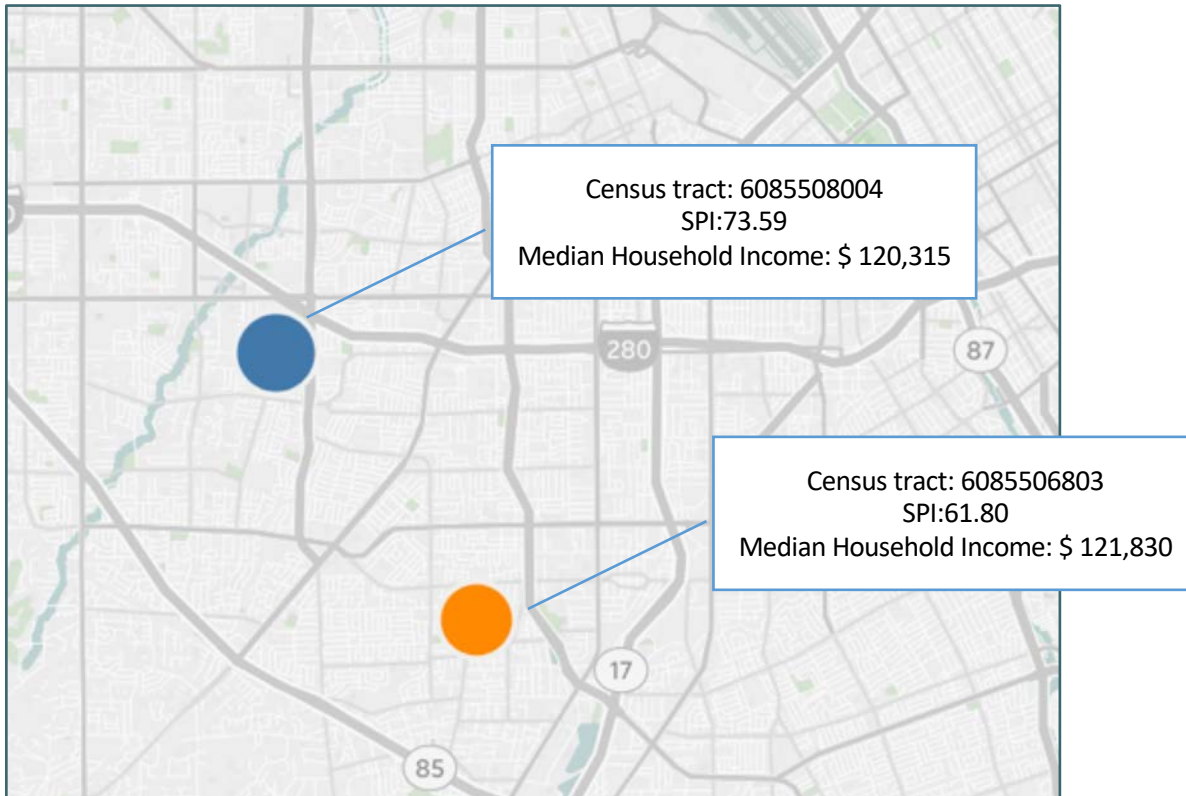# In this way SPI can be used as a tool to generate inclusive growth by helping the city to manage limited public resources in order to foster the benefits of the 4th industrial revolution

Census tract: 6085512017
SPI:49.04
Median Household Income: $ 78,792

Census tract: 6085512042
SPI:53.03
Median Household Income: $ 68,500

Census tract: 608551243
SPI:41.22
Median Household Income: $ 51,000

Census tract: 6085512021
SPI:60.79
Median Household Income: $ 91,189
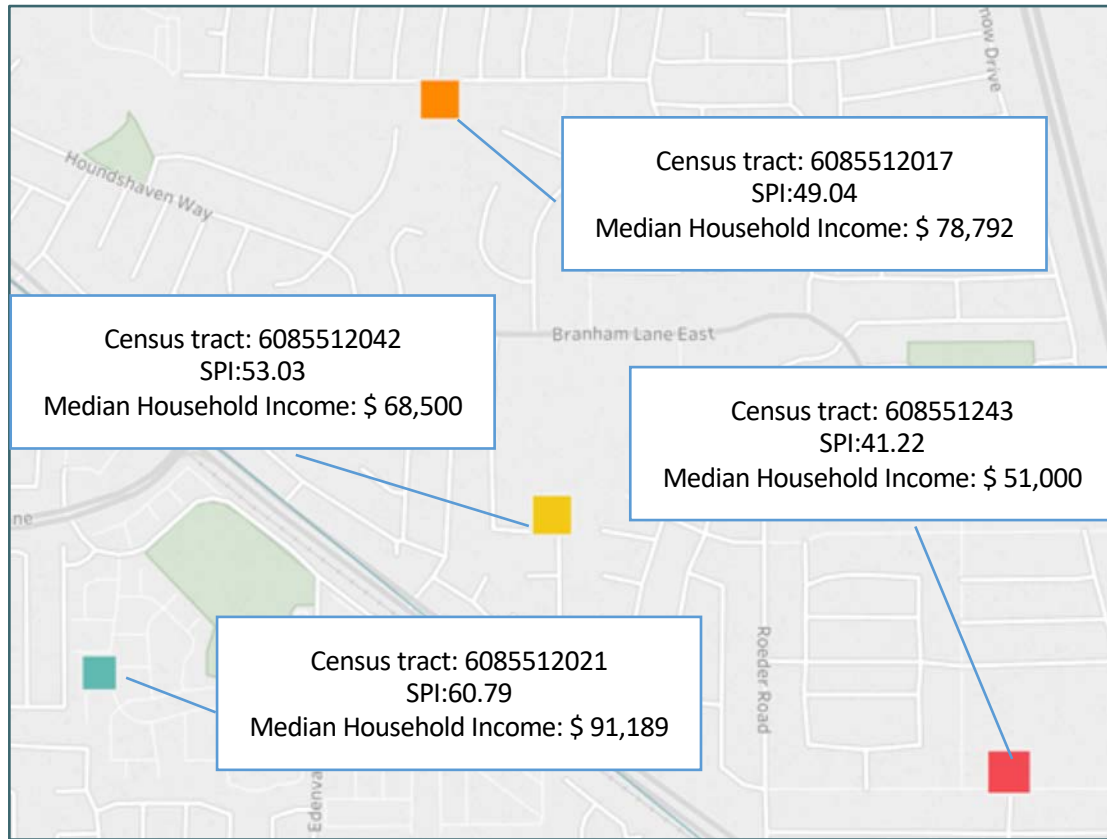
This multi-dimensional analysis of these profiles helps to design roadmaps focused on local needs, instead of "one size fits all" interventions.

With the data we can focus on a multifactorial strategy that can develop not only the skills, but also transform the economic gains of technology change into a better life

Census tract: 6085508004
SPI:73.59
Median Household Income: $ 120,315

Census tract: 6085506803
SPI:61.80
Median Household Income: $ 121,830

We have found census tracts with similar skills profiles, similar risk of automation, and similar income, but vastly different social progress scores.

In this example, the main contrasts are because of Obesity, Diabetes and 3 years of difference in Life Expectancy.

SOCIAL
PROGRESS
IMPERATIVE