7th Global Forum on Gender Statistics

A Federated System of SDGs Data Hubs and the use of Geospatial Data to Monitor Gender Equality

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www.esri.com
Integration of Statistical and Geospatial Data

Global Statistical Geospatial Framework (GSGF)

Usable
Interoperable
Common Geographies
Geocoded Units
Fundamental Geospatial Infrastructure

Statistical Process Model (GSBPM)

Planning/Pre Enumeration

Specify Needs
Design Build

Enumeration
Collect Process Analyze

Post Enumeration/Dissemination
Disseminate Evaluate

Quality / Metadata Management
Shifting Role of GIS in Official Statistics
Geographic and Statistical Data Are Foundation

An Integrated Data Model is Essential

Nested Administrative Hierarchy

Diagram and information taken from the “Handbook on the Geospatial Infrastructure in Support of Census Activities”, Department of Economic and Social Affairs, United Nations Statistics Division
GIS Provides a Platform
For Managing, Analyzing, and Applying
Geographic, Statistical & Imagery Information
Integrating People,
Processes, Things,
and Data About Them
Information Systems are Becoming Distributed

A New Architecture Is Emerging

Enabling integrated collaboration and coordination

Dynamic Systems-of-Systems

Enabled by Portals . . .

. . . Abstracting Distributed Data and Analytics
New Types of Data Collaborations Are Emerging

Connecting Individuals, Organizations and Communities

Creating a Nervous System for People and Planet and a Means to Measure and Monitor Progress…
Web GIS Simplifies Working With All Types of Data

Using Web Maps, Scenes, and Layers

Creating A Common Language

Apps

Distributed

Portal

Map

Lidar

Tabular

Imagery

3D

Real-Time (IoT)

Big Data
Providing the Integrating Framework and Processes
For Enabling a Smarter World

Data Collection and Development
Data Integration, Sharing and Management
Geo-Statistical Analytics and Modeling
Planning and Decision-Making

Transforming How We Think and Act . . .
. . . Creating a More Sustainable Future
Integrating Geography and Statistics
To understand our society, economy and environment
GIS Provides the Means . . .

. . . For Creating Federated Systems
The UN with Member States have Developed a Federated System for the SDG’s

- Country-owned, Country-led
- Global data coverage
- Supporting the Monitoring and Reporting of the SDGs
UNSD Created Group for Gender Statistics

Bring together community focused on gender statistics

Gender Story Map initiative

Collaboration group for the creation of a multi-country "gender story map."

Description
This group brings together a multi-disciplinary team of experts from National Statistical Offices, United Nations Statistics Division, and Esri to collaborate on the creation of a multi-country “gender story map.” The immediate objective is to demonstrate how the geospatial perspective can enrich the analysis of gender indicators and provide additional insights for policy makers. Furthermore, this initiative will contribute to ongoing work to improve the communication of gender indicators using web-GIS technologies, including through the establishment of a dedicated collaborative group, with the possible participation of additional countries, and leveraging the tools and capabilities that become available through the FIS4SDGs initiative.

Latest Content

- Female representation in politics
- Women’s economic empowerment
- Gender Story Map
- Breaking the poverty chain

Details
Created: September 11, 2018
Viewable by: Only group members
Contributors: Members

Owner:
unstats_admin

Membership
Leave Group

Tags
gender, Story Maps, gender statistics
Invited those with interest to join
Bring together community focused on gender statistics
Country Led - configuring data and apps
Country Led - configuring data and apps
In 2016, all Member States of the United Nations adopted 17 Global Goals to end poverty, protect the planet and ensure prosperity for all as part of a new 2030 Agenda for Sustainable Development.

This Gender Story Map showcases how the geospatial perspective can enrich the analysis of gender indicators to follow-up and review progress towards achieving the 2030 Agenda.

It highlights challenges and progress towards the achievement of the Sustainable Development Goals and Targets, providing insights from global, national and sub-national data on three main pillars of gender, namely:

1. Women’s economic empowerment
2. Women’s voice
3. Women’s safety and human rights.
Women's Voice
Women's economic empowerment
Women's Voice
Voice is the capacity to speak up, be heard and shape public decisions

Ensuring that women’s voice is included in the design, implementation, follow-up and evaluation of decision-making processes, both at national and local levels, means that group-specific interests are represented and promoted in public policy, furthering individual well-being and resilience.
Women's participation in public discourse has intrinsic value for social change and progress.

Established evidence reveals that when at least 25 percent of members of parliament are women, laws that discriminate against women are more likely to be repealed (Hallward-Driemeier, Hasan and Rusu, 2013).

Among developing countries, those with higher shares of women parliamentarians are more likely to pass comprehensive laws on sexual harassment, rape, divorce and domestic violence (Asiedu et al., 2018).
All people - women and men, girls and boys - should have the opportunity to realize their potential and participate fully in all aspects of life without any distinction, exclusion or restriction made on the basis of sex.

By ratifying the Convention on the Elimination of All Forms of Discrimination against Women, which came into force in 1979, 189 countries demonstrate a strong commitment to eliminating discrimination against women in political and public life.

The 1995 Beijing Platform of Action identifies key universally accepted benchmarks such as women in power and decision-making.
Furthermore, the 2030 Agenda for Sustainable Development comprises various targets in Goal 5 on achieving gender equality and empowering all women and girls. This includes Target 5.5 on ensuring women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.
The global perspective
Despite advances over several decades, women both in developing and developed regions have limited voice and continue to be significantly underrepresented in formal politics and positions of power.

Worldwide, women account for 24.0 percent of parliamentarians as of September 2018, up from 16.8 percent in end-2006 (IPU). Despite incremental gains in ministerial positions, the majority of women ministers hold social portfolios, while defense, finance or economic portfolios are more likely held by men (IPU). Rates, however, vary across countries and regions.
Persisting imbalances between women's and men's participation in senior positions in public decision-making processes could stem from a multitude of hurdles faced by women. These include discriminatory social norms and gender stereotypes, threats of violence and intimidation, fewer education opportunities, limited financing and resources, and disproportionate burden for unpaid care work.
Amplifying women's voice and ensuring their full participation in leadership positions in political and public decision-making processes will contribute substantially to achieving the Sustainable Development Goals (SDGs).

However, the data challenges are large, including on women's political participation at the local level.
The following story map has been created by the Republic of Ireland’s Central Statistics Office. To explore the narrative, please press the “explore” button on the bottom right.

Female representation in politics in Ireland
This Story Map illustrates changes in female representation in recent Local Government and General Elections in Ireland between 2004 and 2016.

Women are significantly out-numbered by men in both local and national politics in Ireland. However, the introduction of gender quota legislation before the 2016 General Elections did produce a small increase in female representation. Patterns of female representation in the 2004, 2009 and 2014 Local Government elections and in the 2011 and 2016 General Elections are examined in the text below. Maps are used alongside the text to demonstrate the regional patterns in the proportions of females elected.

This Story Map has been developed to show case how the geospatial perspective can enrich the analysis of gender indicators. It is also part of the work involved in reporting Ireland’s status in relation to achieving the United Nations (UN) Sustainable Development Goals.

Men significantly outnumbered women in Local Government seats between 2004 and 2014 with about four times as many men as women.

Nationally there has been very little change in female representation over this time period. In the 2004 round of elections 20.2% of Local Government seats were taken by women but this dropped to 17.3% in the 2009 elections before rising to 20.1% in 2014.
Men Significantly Out-Number Women in Local Government

Female representation in Local Government

- 2004
- 2009
- 2014

Female: Blue
Male: Aqua
Men Significantly Out-Number Women in Local Government

This map represents the proportion of women in local government at NUTS 3 (2003) level in 2004.
Men Significantly Out-Number Women in Local Government

This map represents the proportion of Women In Local Government at Administrative County level in 2014. Only two local authorities had less than 10% by 2014.

For example, South Tipperary had just 3.8% of seats held by women in 2004 but this had risen to 27.3% by 2014 while the proportion rose from 6.3% to 10.7% in Clare over the same time period. However, Donegal and Wexford, which both had more than 10% of seats held by women in 2004, dropped to below 10% in the 2014 elections.
Women's economic empowerment
Women constitute roughly half of the world’s population and thus, potentially, half of its work force.

Globally, however, the **gender gap in labor force participation** is very large and has narrowed only marginally over the past 20 years, due to slightly larger decline in men’s labor force participation rate than that of women, with both rates unevenly distributed across regions.
Gender gap in labour force participation

Labour force participation rate for persons aged 15+, by sex (2016)

- Women
- Men

[Map showing gender gaps in labour force participation across different countries]
Persistent gender-relevant constraints that may explain women's reduced freedom to participate in the labor market include:

- Limited access to education; limited access to finance and ownership of assets;
- Discriminatory social norms, attitudes and gender roles;
- Higher age gaps at marriage; unavailability of parental leave;
- Unequal share of unpaid domestic and care work within a household; lack of affordable childcare;
- Lack of safe and reliable transportation; inadequate sanitation facilities; and/or legal barriers to work or conduct official transactions.
Women who are available for and seeking work, on the other hand, tend to have a harder time finding a job than men.

The unemployment rate, which can be used as a proxy for labor market performance, is higher for women than for men in most countries.
Gender Story Map

Women's economic empowerment

Unemployment

SDG Indicator 8.5.2: Unemployment rate for population 15 years of age and older, by sex

<table>
<thead>
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<tr>
<td>Other</td>
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EMPOWERING WOMEN IN THE LABOUR MARKET ...

ON THE ROAD FOR GENDER EQUALITY IN PALESTINE
Karimah Abood (a Palestinian): The First female photojournalist in the Arab world, (1893-1955)

Big Gap in the Participation Rate of Labor Force between Men and Women in Palestine

The participation rate increased significantly in Palestine during the period from 2000-2017 from 41.4% in 2000 to 50.7% in 2015, with obvious differences between the men and the women. Participation of men is four times higher than Participation of women.

Low Participation Rate for Women

Labour Force Participation Rate of Persons Aged 15 Years and Above in Palestine by Sex, 2000-2017

- Men: 71.6%
- Women: 19.2%
There are around 1.4 million Palestinian women within the working age population, about 1.2 million, which is about 81% of women, are outside the labour force, including:

- 49.4% under 30
- 56.2% married
- 63.1% outside the labour market due to house work
- 24.7% outside the labour market due to study/training
- 91.5% have less than diploma
- 8.5% with diploma or more degree
- 43.5% have 10-12 years of schooling
The unemployment rate for women is the highest in Khan Younis governorate at 73.6%, followed by North Gaza 69.4%, where the lowest unemployment rate is for women in Jerusalems governorate at 17.5% followed by Ramallah and Al Bireh governorate at 18.4%.

Youth have high unemployment rate, and young women suffer more than young men.
Gradiates have high unemployment rates reached 56.3% but it is especially higher for women reaching 72.4%. In addition, there is a gap between the West Bank and Gaza Strip.

The highest unemployment rates among graduated women 15 years and above:
- Mass media and information was 71.7%
- Computer Science was 63.6%
- Business and Administration 59.3%
- Education Science and Teacher Rehabilitation was 58.6%

The lowest unemployment rates among graduated women 15 years and above:
- Law was 28.0%
- Health was 37.6%
- Personal services was 40.8%
Breaking the poverty chains and bringing out untapped potential
In many countries, rural women are the face of poverty.
Breaking the poverty chains and bringing out untapped ... Poverty varies significantly among regions

Having disaggregated data enables the Social Ministry to implement focused policies such as the fund to support rural women and their micro enterprises as a means to empower them economically.

Plataforma Preventiva
Breaking the poverty chains and bringing out untapped...

Tapping the labor force potential

The gender gap in employment: What’s holding women back?

Around the world, finding a job is much tougher for women than it is for men. When women are employed, they tend to work in low-quality jobs in vulnerable conditions, and there is little improvement forecast in the near future.

Explore this InfoStory to get the data behind the trends and learn more about the different barriers holding women back from decent work.

Traditional gender roles may define specific access and performance for women and men in the labor market.
In Chiapas for example, the gender gap labor force participation is around 50%, while in States like Baja California Sur, Colima and Quintana Roo, the gap is less than 30%.
Breaking the poverty chains and bringing out untapped ...
Breaking the poverty chains and bringing out untapped ...
Early Marriage in Palestine

Number of Live Births for the women in the age 20-24 who were married before age 18:

According to the population housing and establishments census 2017, the result showed 144,827 births in Palestine 42.8% of them in the West Bank and 57.2% in Gaza strip were born to those women, on average 2.3 per women, which is high for this age group.

Early Marriage is Decreasing
Proportion of Seats Held by Women, 2014

Description

This map represents Sustainable Development Goal indicator 5.5.1 ‘Proportion of Seats Held by Women in Local Government’ for Ireland, 2014 at NUTS 3 level. Source: Department of Housing, Planning and Local Government, OSI, CSO.

Web Map by sdgireland_curator

Created: Oct 18, 2018    Updated: Nov 3, 2018    View Count: 274

Note that the NUTS 3 boundary refers to the former Regional Authorities established under the NUTS Regulation (Regulation (EU) 1059/2003). These boundaries were subsequently revised in 2016 through Commission Regulation (EU) 2016/2066 amending annexes to Regulation 1059/2003 (more info).

In 2015 UN countries adopted a set of 17 goals to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. Each goal has specific targets to help achieve the goals set out in the agenda by 2030. Governments are committed to establishing national frameworks for the achievement of the 17 Goals and to review progress using accessible quality data. With these goals in mind the Central Statistics Office (CSO) and OSI are working together to link geography and statistics to produce indicators that help communicate and monitor Ireland’s performance in relation to achieving the 17 sustainable development goals.
Monitor Malaria Epidemics

Calculate Sustainable Development Goal #3.3.3: Malaria Incidence per 1,000 People. ● 1 hour 40 minutes

View final result  Start lesson

Overview  Lessons

You are a member of the Ministry of Public Health for the Democratic Republic of the Congo assigned to monitor progress on eradicating malaria and reporting on the United Nations Sustainable Development Goal (SDG) #3 Good Health and Well-Being. To gather intelligence on where prevention and aid are most needed, and to calculate the incidence rate per 1,000 for SDG reporting, you’ll use Esri’s Living Atlas layers and the Malaria Atlas Project’s incidence reports to map the spatial and temporal distribution from 2000-2015.

Lesson plan

<table>
<thead>
<tr>
<th>Extract boundary data</th>
<th>Extract select features from global datasets.</th>
<th>20 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add population estimate data</td>
<td>Calculate population estimates within geographic units using Living Atlas data.</td>
<td>15 minutes</td>
</tr>
<tr>
<td>Add malaria data</td>
<td>Update spreadsheets and perform joins.</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Calculate malaria incidence rates</td>
<td>Calculate the incidence rates of malaria.</td>
<td>25 minutes</td>
</tr>
<tr>
<td>Style and share a web map</td>
<td>Share the final map as a PDF and web map, and export data as an Excel file.</td>
<td>20 minutes</td>
</tr>
</tbody>
</table>

Builds skills in

Data Collection & Management | Mapping & Visualization | Spatial Analytics

Focus industry

Health & Human Services

Requirements

ArcGIS Pro (get a free trial)
Publisher or Administrator role in an ArcGIS organization or ArcGIS Enterprise
Spreadsheet editing software

Acknowledgements

Thanks to the Malaria Atlas Project (MAP) for their data.
Vision

GIS is enabling a sustainable world and empowering change for women.