

Technical Workshop on Time, People, Places and Relationships: A New Lens to Organize  
Social and Demographic Outcomes  
Ottawa, Canada, 9 - 11 September 2025

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# Towards a Central Framework for a System of Population and Social Statistics (CF- SPSS)

## Main foundations

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# Introduction

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- Summary of the background document, with additional elements.
- Topics:
  - Scope and boundaries
  - Key terms and concepts
  - Relevant international standards
  - Primary data sources
- This is a preliminary exercise, subject to improvements following to new developments for each building-block.

# Building-blocks and integration

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- The underlying idea of System is integration.
- Different perspectives on integration -> concrete outputs
  - Accounts: Aggregate across domains while ensuring consistency with population totals.
  - Integrated data system: combine variables from multiple sources at the lowest possible level.
- Building-blocks act as:
  - Relevant variables to be measured
  - Means for data integration across information sources
  - Analytical perspective on social phenomena

# People

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- "People" are the core unit of social and demographic statistics.
- Measurement:
  - The building-block covers population stocks and flows, demographic characteristics, vital events, and migration patterns.
  - Includes populations that are often at risk of exclusion, such as stateless persons and undocumented migrants.
- Integration:
  - An integrated population data system seems the backbone for integration in the CF-SPSS ("accounts" and "information systems")
  - This involves horizontal integration (across statistical domains) and vertical integration (individual-level data over time).
- Analysis:
  - Attributes and characteristics of individuals, such as the size, structure, and composition of populations.
  - Demographic analysis.
  - Life-course perspective (also in "time").

# Places

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- "Places" refers to the geographic context in which people and events are situated.
- Measurement:
  - Variables related to location and spatial classification.
  - Use of existing geographic data in sociodemographic sources.
  - Use of geospatial and Earth observation data as a primary source for statistics.
- Integration:
  - Georeferencing associates statistics with specific geographic locations.
  - Enables data integration across domains using common geographies.
  - Linking possible at point-level, grid systems or territorial typologies.
- Analysis:
  - Location can shape outcomes, e.g. patterns of inequality, migration flows, and access to resources and opportunities.

# Time

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- Measurement:
  - Variables related to “time” enable longitudinal analysis, tracking changes over age, periods, cohorts.
- Integration:
  - Time is essential in integration to harmonize and enhance the coherence of social and demographic data.
  - Vertical integration, links individual or group-level data over time to construct longitudinal trajectories.
- Analysis:
  - Life-course trajectories, longitudinal studies, intergenerational analysis.
  - Social dynamics and historical context.

# Relationships

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- “Relationships” refers to the connections among individuals within families, households, communities and broader institutions.
- Measurement:
  - Variables span micro (individual), meso (community), and macro (societal) levels.
  - Variables that capture the structure, function, and quality of relationships.
- Integration:
  - Linking individuals to others or to institutions is more complex than linking by time or place.
  - Aspects that require dedicated data sources (e.g. a survey on quality of relationships) seem to overlap conceptually with “outcomes”.
- Analysis:
  - Examines how relationships contribute to social outcomes and well-being by supporting tangible outcomes and by fostering intrinsic values such as empathy, respect, and belonging.

# Outcomes

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- Variables:
  - Domains that describe life conditions.
  - Include both subjective and objective indicators.
- Integration:
  - Outcomes are generally not linking variables.
  - Links are established through the other building blocks, which provide the basis for integrating sources to analyze outcomes.
- Analysis:
  - Show how societies develop over time and provide evidence for general and sectoral policy-making.
  - Enable joint analysis across domains; support the study of inequalities between groups and places; allow longitudinal and intergenerational perspectives; etc.

# Building-blocks in integrated data system

	Variable	Key variable to link data sources	As main linkage variable
<b>People</b>	Identification, personal characteristics (eg. Sex, age, disability, ethnicity)	Unique person identifier; statistical matching; standardized demographic categories	Unit-record; Group aggregates (when identifiers unavailable)
<b>Place</b>	Geocoded addresses, grids, geographic boundaries, territorial typologies	Geographic codes (address, postal code, administrative unit, geospatial coordinates)	Geographic aggregates
<b>Time</b>	Timing, duration, frequency	Time stamps (date of event, reference period, reporting interval)	Aggregated intervals (monthly, annual)
<b>Relationships</b>	Membership to household, institutions (eg. school)	Household ID, family ID, institution ID (e.g., school code, employer code), group membership variables	Group aggregates (household/institution level)
<b>Outcomes</b>	Variables relevant to the outcome of interest	...	...

# Key terms and concepts

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- People

- Base population
- Total population
- Cohort-component method
- Demographic-balancing equation
- Integrated population data system
- Population projections
- Population stocks and flows
- Under-enumeration adjustment
- Vital events

- Places

- Degree of Urbanisation Methodology (DEGURBA)
- Geocoded address file (GAF)
- Georeferencing
- Geo-visual dashboard
- Global Statistical Geospatial Framework (GSGF)
- Small-area estimation (SAE)
- Spatial autocorrelation
- Spatial interaction model

# Key terms and concepts

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- Time
  - Contextual time
  - Data-production time
  - Life-course approach
  - Longitudinal study
  - Measured time
  - Time-use survey
- Relationships
  - Bonding social capital
  - Bridging social capital
  - Household
  - Linking social capital
  - Loneliness
  - Relational wellbeing
- Social capital
- Social cohesion
- Social connectedness
- Social connection
- Social fitness
- Social inclusion
- Social interaction
- Social isolation
- Social network
- Social relationships
- Social wellbeing

# Key terms and concepts

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- Outcomes
  - Physical and mental health status
  - Educational attainment and skills
  - Labour-market position and job quality
  - Income, consumption, poverty, and wealth
  - Housing conditions
  - Subjective well-being
  - Social connection and trust
  - Safety, crime, and justice
  - Environmental exposure and resilience
  - Mobility and life-course trajectories
  - Multidimensional quality-of-life composite indicators

# International standards

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- People - Core demographic standards (population, censuses, migration)
  - UN Principles and Recommendations for Population and Housing Censuses
  - UNECE Guidelines on the Use of Registers and Administrative Data for Population and Housing Censuses
  - UN Handbook on Civil Registration and Vital Statistics Systems
  - UN Recommendations on Statistics of International Migration
  - International Recommendations on Refugee Statistics (IRRS), International Recommendations on Internally Displaced Persons Statistics (IRIS) and International Recommendations on Statelessness Statistics (IROSS)
- Places - Geospatial integration and spatial standards
  - Global Statistical Geospatial Framework (GSGF)
  - Degree of Urbanisation (DEGURBA)
  - ISO Spatial Referencing Standards
- Time - Technical/temporal consistency and life-course frameworks
  - ISO Date and Time Standards
  - Statistical Data and Metadata eXchange (SDMX) Information Model
  - UN Guide to Producing Statistics on Time Use & UN International Classification of Activities for Time-Use Statistics (ICATUS 2016)
  - UN National Transfer Accounts (NTA) manual
- Relationships: Social cohesion and trust measures
  - OECD Guidelines on Measuring Trust
  - UNECE Social Cohesion Concept and Measurement; UNECE Guide on Measuring Social Cohesion

# International standards

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- Outcomes - Broad sectoral standards across health, education, labor, and well-being.
  - WHO International Classification of Functioning, Disability and Health (ICF)
  - WHO Healthy Life Expectancy (HALE) Methodology
  - UNESCO Institute for Statistics International Standard Classification of Education (ISCED 2011)
  - OECD Programme for the International Assessment of Adult Competencies (PIAAC)
  - ILO Resolution concerning Statistics of Work, Employment and Labour Underutilization (19th International Conference of Labour Statisticians) & ILO International Classification of Status in Employment (ICSE-18)
  - UNECE Handbook on Measuring Quality of Employment
  - UNECE Canberra Group Handbook on Household Income Statistics
  - OECD Guidelines on Measuring Subjective Well-being
  - UNECE Guidelines on Measurement of Well-being
  - UNODC International Classification of Crime for Statistical Purposes (ICCS) & UNODC & UNECE Manual on Victimization Surveys
  - OECD How's Life? Measuring Well-being (OECD Better Life Initiative)
  - CES Recommendations on Measuring Sustainable Development

# Data sources

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- Most data sources are related to most building-blocks.
- Traditional
  - Population and housing censuses
  - Household surveys: employment, multi-purpose or living conditions, health and demographic, time-use, victimization, income and expenditure, etc.
  - Administrative registers: several related definitions
- Geospatial and big-data
  - Geospatial and Earth observation data, Geocoded address files
  - Mobile data, other sources
- Integrated systems
  - Population data system
  - Migration data system

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Thank you!

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