

# DEMOGRAPHIC ANALYSIS & POPULATION PROJECTION SYSTEM (DAPPS)

US Census Bureau | Training and Statistical Development Branch

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## Keywords:

Dapps, death distribution methods (ddm), grpopyb, user-interface (ui)

## Summary:

Our project this summer was to further develop the US Census Bureau's demographic analysis & population projections software (DAPPS). This software is used aid foreign countries with their population projections. As projections become easier to generate, the goal of DAPPS is to democratize projection data to decision makers with less technical backgrounds. As fellows, our specific role was to create new analysis methods for the back-end and allow those new methods to be available in the front-end of the application.

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# Demographic Analysis & Population Projection System (DAPPS)



Amanda Kwok, Pauline Nguyen

## Our Team



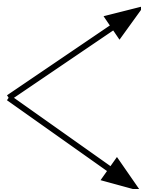
### Branch

Training and Statistical  
Development Branch  
(TSDB)



### Supervisors

Sean Fennell & Nobuko  
Mizoguchi



### Software

DAPPS



### Fellows

Pauline Nguyen &  
Amanda Kwok

# Demographic Analysis and Population Projection System (DAPPS)

## What is DAPPS?

Offers a comprehensive suite of methods for the creation and analysis of population projection data



## Who uses DAPPS?



Workshops for DAPPS held internationally in locations such as: Mali, Benin, Zambia, Rwanda, etc.



## Feedback

Feedback is used to create new milestones

# New UI Features

Build Projection Form

File Edit View Window Help

BUILD PROJECTION

Parameters

Projection Name

End year of projection (ex. 2100)

Select Model Life Table 

Model Life Table >

Sex Ratio at Birth (Optional)

Inputs

POPULATION

MORTALITY

FERTILITY

MIGRATION

Available Fertility Data

Births\_2024\_49\_1

Births\_2024\_49\_5

Popstan\_TFR\_2015\_2060

Selected Fertility Data

Popstan\_ASFR\_2015\_15\_49

Add All

Clear All

Run And Save Projection

Input Data Form

File Edit View Window Help

Type of Demographic Data (Required)

Deatior >

Crisis Deaths Question

Is this deaths data referencing crisis deaths?

Yes (First Half of Year)

Yes (Second Half of Year)

No

Reference Date (Required)

Reference Date

Reference Data Calculator (Optional)

Data Collection Date Ranges

Start Date

End Date

Reference Period of Estimate

Number of Years Prior

Calculate Reference Date

Select Data (Required)

Select File

	A	B	C
1	start age	male	female
2	1	19005	18965
3	2	19000	18171
4	3	19394	18495
5	4	19862	18759
6	5	20050	19087
7	6	20205	19204
8	7	20815	19785
9	8	20985	19920
10	9	20980	20004
11	10	20440	19433
12	11	19934	18983
13	12	19701	18687
14	13	19813	18899
15	14	19465	18529
16	15	19609	18648
17	16	19941	18880
18	17	20587	19545
19	18	20529	19494
20	19	20981	20089

Summary Information for Data

Total Deaths (Male)

1726448

Total Deaths (Female)

1788776

Total Deaths (Both Sexes)

3515224

Additional Outputs

Create 5-year age groups

Create 0, 1-4, and 5-year age groups

Data Name (Required)

Input Label

Input Suffix

Names of Additional Outputs

(Additional age groupings will be added on the Input Page)

Import Data

## Updates to Analysis Methods



Validation

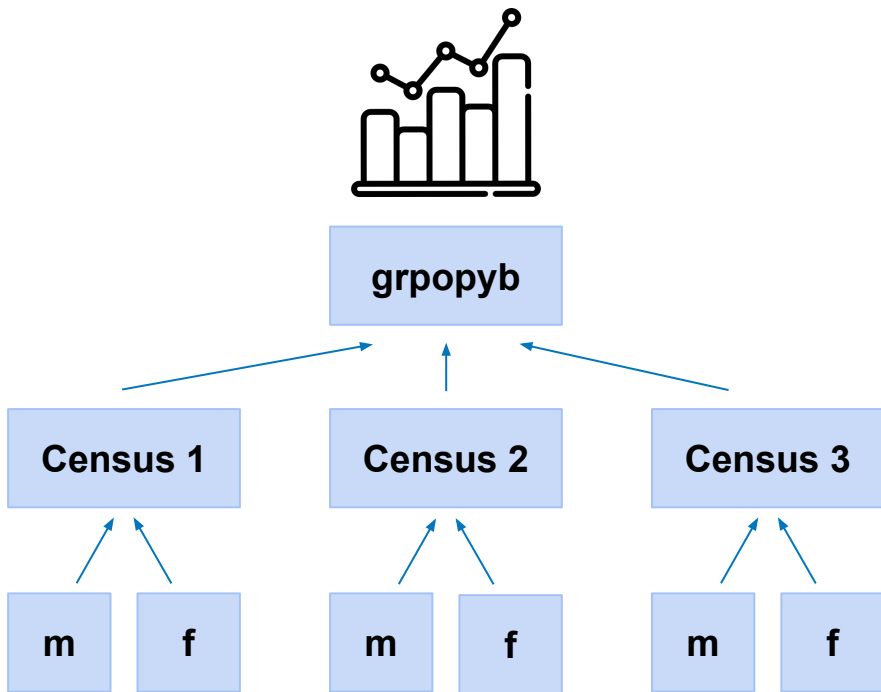
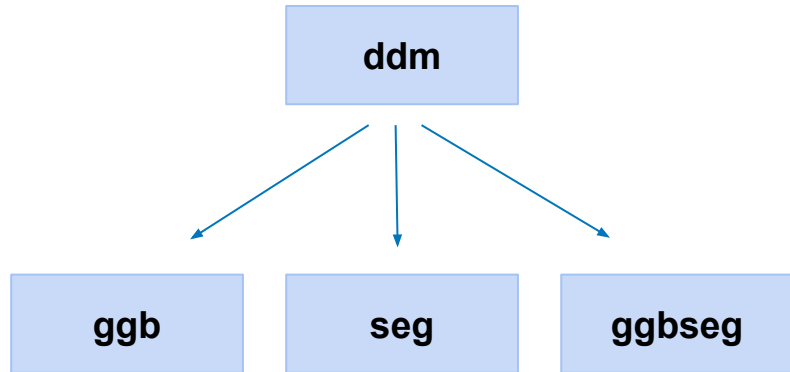


Debugging



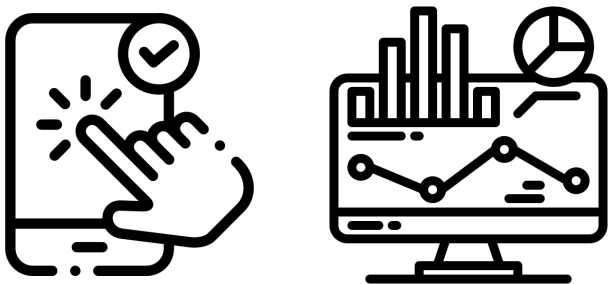
New Methods

## New Analysis Methods



## Next Steps

**Continue Updates on UI and Analysis  
Methods**



## Goal

Create an application that is intuitive  
and effective for global use in  
demographic analysis and creating  
population projections



# Thank You!

Special thanks to supervisors, mentors,  
and team members!

For questions, we can be reached at [akwok1@jh.edu](mailto:akwok1@jh.edu) and  
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