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Benefits Mapping and Analysis Program (BenMAP)

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BenMAP Community Edition

BenMAP-Community Edition 1.5 (April 2021) - This is the current version of the BenMAP-CE software.


- There is a single 64-bit version of the BenMAP-CE v1.5 installation package available. If you have installed an earlier version of the program, you will first need to uninstall it. If you modified your BenMAP-CE database and would like to transfer these data to the new version, please see the release notes below.
 - BenMAP-CE <<https://epa.gov/economic-and-cost-analysis-air-pollution-regulations>> (64-bit version, 1.2GB, March 14, 2023)
- The BenMAP-CE compatible versions of the
 -  U.S. EPA approach for quantifying and valuing PM effects (zip)
<https://epa.gov/sites/default/files/2021-04/u.s._epa_approach_for_quantifying_and_valuing_pm_effects_0.zip>
 -  U.S. EPA approach for quantifying and valuing ozone effects (zip)
<https://epa.gov/sites/default/files/2021-04/u.s._epa_approach_for_quantifying_and_valuing_ozone_effects.zip>
- The development team created a new set of country-specific BenMAP-CE training materials <<https://epa.gov/benmap/benmap-ce-training-materials>>

- To import new data to the tool, please consult the  BenMAP-CE Import File Specifications (xlsx) <https://epa.gov/sites/default/files/2015-03/benmap_import_file_specs_nov2014_1.xlsx> (79.06 KB, November 2014)
- If you are interested in creating a new BenMAP-CE grid in ArcGIS, download this step-by-step  guide (docx) <https://epa.gov/sites/default/files/2018-04/creating_a_regular_grid_for_use_with_benmap_0.docx> (812.74 KB, April 12, 2018)
- To calculate beta coefficients and import a large number of health impact functions, please download the  Beta calculator and health impact function input format (xlsx) <https://epa.gov/sites/default/files/2018-02/beta_se_calculator_and_hif_input_file.xlsx> (37.32 KB, February 27, 2018)
- The air quality and configuration files used to quantify impacts for the Affordable Clean Energy rule can be found here:  ACE rule air quality and configuration files (zip) <https://epa.gov/sites/default/files/2018-09/ace_rule_air_quality_and_configuration_files.zip> (813.83 MB, September 12, 2018)




PopGrid

BenMAP contains U.S. population data matched to a variety of commonly used air quality grids. However, users wishing to run an analysis based on an air quality grid not already defined in BenMAP may need to import a new population file matched to that grid definition. The  PopGrid program (zip file) (zip) <https://epa.gov/sites/default/files/2015-08/popgridv43_census_2010.zip> (898.92 MB) allocates the 2010 block-level U.S. Census population to a user-defined grid, creating a population file ready for importation to BenMAP.

PopSim (International Version)

The BenMAP tool includes a tool that quantifies the estimated change in life expectancy resulting from changes in air pollution levels in the U.S. This tool is not configured to perform analyses outside of the U.S. A version of the tool specified with the input data needed to perform such an analysis is available for download here:  PopSim International Tool (zip) <https://epa.gov/system/files/other-files/2022-04/popsim_international_2021.zip> .

Program Source Code and Documentation

- Are you interested in accessing the BenMAP-CE source code, or learning more about the algorithms the program uses to quantify risks and estimate economic values? You can access the source code on GitHub by following this link [🔗](https://github.com/benmapce/benmap-ce)
<<https://github.com/benmapce/benmap-ce>>.
- The user manual and appendices can be found on this page
<<https://epa.gov/benmap/benmap-ce-manual-and-appendices>>.
- Release notes and known issues can be found below.
- A memorandum documenting in detail the demographic and economic input parameters that the team updated in version 1.3 can be found below.
-  **BenMAP-CE v1.5 Release Notes & Known Issues (pdf)**
<https://epa.gov/sites/default/files/2017-09/documents/benmap-ce_release_notes_september_2017.pdf>
(210.93 KB, April 26, 2021)
BenMAP-CE v1.5 Release Notes & Known Issues
-  **Quality Assuring BenMAP-CE Demographic and Economic Input Data (pdf)**
<https://epa.gov/sites/default/files/2018-02/documents/benmap_v1.3_qa_memo.pdf> (1.7 MB, October 13, 2017)
-  **Technical Support Document: Estimating PM2.5- and Ozone-Attributable Health Benefits (pdf)** <https://epa.gov/sites/default/files/2021-03/documents/estimating_pm2.5-_and_ozone-attributable_health_benefits_tsd_march_2021.pdf> (4.34 MB, March 2021, Docket ID No. EPA-HQ-OAR-2020-0272)
This document describes EPA's approach to quantifying the number and value of health impacts attributable to changes in ambient PM2.5 and O3 exposure

[BenMAP Home](https://epa.gov/benmap) <<https://epa.gov/benmap>>

[How BenMAP-CE Estimates the Health and Economic Effects of Air Pollution](https://epa.gov/benmap/how-benmap-ce-estimates-health-and-economic-effects-air-pollution)

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[Questions BenMAP-CE Can Help Answer](https://epa.gov/benmap/questions-benmap-ce-can-help-answer) <<https://epa.gov/benmap/questions-benmap-ce-can-help-answer>>

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[Reduced-Form Tools for Calculating PM2.5 Benefits](https://epa.gov/benmap/reduced-form-tools-calculating-pm25-and-ozone-benefits) <<https://epa.gov/benmap/reduced-form-tools-calculating-pm25-and-ozone-benefits>>

[Applications: Articles and Presentations <https://epa.gov/benmap/benmap-ce-applications-articles-and-presentations>](https://epa.gov/benmap/benmap-ce-applications-articles-and-presentations)

[Training Materials <https://epa.gov/benmap/benmap-ce-training-materials>](https://epa.gov/benmap/benmap-ce-training-materials)

[Manual and Appendices for BenMAP-CE <https://epa.gov/benmap/benmap-ce-manual-and-appendices>](https://epa.gov/benmap/benmap-ce-manual-and-appendices)

[Contact Us <https://epa.gov/benmap/forms/contact-us-about-benmap>](https://epa.gov/benmap/forms/contact-us-about-benmap) to ask a question, provide feedback, or report a problem.

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