



REFERENCE • RESEARCH

What the Research Shows

What independent studies say botanic gardens do for their cities: economic return, property values, health, community and conservation.

In brief

Independent studies from the U.S., the U.K. and beyond find that botanic gardens return more to their cities than they cost: they bring in visitor spending, support jobs, raise nearby property values, improve health and protect plants.

- **Economic return.** Gardens studied here return between \$3.50 and about \$3.90 in value for every dollar spent, and generate \$20 million to \$256 million a year for their regions.
- **Visitor spending.** Non-local garden visitors in Philadelphia spend about \$391 per trip, most of it at restaurants, hotels and shops.
- **Property values.** Homes near gardens and protected green space sell for more, by about 5% in one Ohio study and 17% to 18% near a garden in Buenos Aires.
- **Health.** Adults who spend at least two hours a week in nature are significantly more likely to report good health and wellbeing.
- **Conservation.** Botanic gardens hold at least a third of known plant species and more than 40% of threatened ones.

Economic impact

Every major study found that gardens generate far more economic activity than they spend, largely through visitors who spend money in the surrounding town.

STUDY	VISITORS	ANNUAL IMPACT	JOBS	RETURN ON SPENDING
Greater Philadelphia Gardens (30+ gardens; Econsult, 2016)	About 2.5 million	\$256M	1,520	Not stated
Royal Botanic Gardens, Kew (Oxford Economics, 2023)	2.3 million	£369M in UK benefits	Not stated	3.8 to 1
Cincinnati Zoo & Botanical Garden (in BGCI review, 2018)	Not stated	\$143M	1,700	About 3.9 to 1
Coastal Maine Botanical Gardens (Stepwise, 2022)	336,400	\$41.9M	310 local	Not stated
Franklin Park Conservatory, Columbus (SRC Evalmetrics, 2026)	Not stated	\$35.6M	373	\$3.50 per public dollar
Olbrich Botanical Gardens, Madison (Wisconsin, 2025)	372,314	\$20.1M	146	Not stated

Where visitors' money goes

- **Philadelphia:** non-local visitors spend about **\$391 per person** on their trip; day-trippers about **\$65**. Gardens drive about \$37 million a year in off-site spending, and 29% of visitors come from outside the region.
- **Coastal Maine:** of \$15.2 million in direct visitor spending, \$5.8 million went to restaurants, \$3.1 million to lodging, \$2 million to retail and \$1.2 million to other recreation.
- **Olbrich:** about 45% of surveyed visitors said they traveled to the Madison area specifically to visit the gardens.

Return on public money

- **Franklin Park, Columbus:** \$3.50 in total economic value for every public dollar, and **\$10.17** in Columbus output for every dollar of City operating support.
- **Philadelphia:** \$3.6 million a year in Pennsylvania tax revenue, plus \$4.8 million from capital projects.
- **Olbrich:** \$1.3 million a year in state and local taxes.
- **Tourism matters most.** Franklin Park's study estimates each additional percentage point of out-of-state visitors adds about \$1 million a year in output and 17 jobs.

Property values

Homes near gardens and protected green space are worth more, though this is the least studied of the impacts.

STUDY	FINDING
Carlos Thays Botanic Garden, Buenos Aires (in BGCI review)	Property within 300 meters sells for about 17% to 18% more per square meter than property 600 to 1,000 meters away
Two Philadelphia-area gardens (Econsult, 2016)	About \$469 million in assessed home value lies within a half-mile; a 5% premium from an Ohio study implies about \$23 million in added value
Southeastern Pennsylvania open space (2010 study cited by Econsult)	\$16.3 billion in housing value attributed to protected open space

Higher nearby values also mean more property tax revenue, without new public spending. The BGCI review calls for more property-value studies, so gardens can document this benefit better.

Health, wellbeing and community

Time in nature measurably improves health, and gardens turn that time into a habit by making nature close, safe and welcoming for every age.

Nature and health

A 2019 study in *Scientific Reports* of nearly 20,000 people in England found that adults who spent at least **120 minutes a week in nature** were significantly more likely to report good health and higher wellbeing than those who spent none. Visits adding up to less than two hours showed no such benefit, and it did not matter whether the time came in one visit or several.

That is two hours a week: a lunchtime walk on the Creek Path and a weekend morning in the garden.

Gardens and community

From the BGCI review:

- **Sydney:** the Royal Botanic Garden's Community Greening program reached almost 100,000 participants and started 627 community gardens. Nearly 80% of participants said it benefited their community.
- **Five U.K. gardens:** in a study of more than 1,000 visitors, environmental attitudes were more positive when visitors left than when they arrived.
- **Pittsburgh:** Phipps Conservatory's green-energy campaign led more than 3,100 households to switch, cutting carbon emissions by 24,800 tons.
- **Cambridge, U.K.:** 63% of University Botanic Garden visitors said they came "to enjoy the atmosphere," the top reason given.
- **Massachusetts:** the New England Wild Flower Society's Garden in the Woods has trained more than 1,200 volunteers.

Volunteers

At Kew, more than 40% of surveyed volunteers reported better general health and wellbeing (Oxford Economics, 2023).

Environment and science

Botanic gardens are among the world's most important places for saving plants and tracking climate change. All figures below are from the BGCI review unless noted.

- **Plant conservation.** Botanic gardens conserve or cultivate at least a third of known vascular plant species and more than 40% of threatened species.
- **Climate change you can see.** The International Phenological Gardens network found its plants flowering about 6.3 days earlier in spring than 50 years ago.
- **Disaster recovery.** After Hurricane Sandy in 2012, a seed-collection effort produced 2,124 collections and 932 pounds of seed, used in 27 restoration projects.
- **Urban environmental services.** Buenos Aires' Carlos Thays Botanic Garden valued its carbon storage and air-quality services at more than \$350,000, returning almost 50 cents in

environmental services for every public dollar.

- **Science value.** Kew's science was valued at £56.2 million to the U.K. economy in 2014–15, and its science spending adds an estimated £90.4 million to long-term U.K. output (Oxford Economics, 2023).

The phenology finding matters for Boulder. With CU's herbarium records of when plants flowered a century ago, a Boulder garden could track bloom dates against that history in public view.

What it means for Boulder

Each audience the garden needs has a strong study behind it.

AUDIENCE	STRONGEST EVIDENCE	WHY IT LANDS
City Council	Franklin Park: \$3.50 per public dollar; \$10.17 per dollar of City operating support	Public money returns several times over
County Commissioners	Philadelphia: \$3.6M a year in state taxes; Olbrich: \$1.3M in state and local taxes	Tax revenue without new taxes
Hotels, restaurants and shops	Philadelphia: \$391 per non-local visitor; Coastal Maine: \$5.8M a year at restaurants	Visitors spend outside the gate
Visit Boulder	Olbrich: 45% of surveyed visitors traveled specifically to see the garden; Franklin Park: each point of out-of-state share adds about \$1M	A garden creates trips, not just stops
Neighbors	Buenos Aires: 17% to 18% higher values within 300 meters	Nearby homes gain value
Families, seniors and doctors	120 minutes a week in nature improves reported health	A daily habit close to home
CU and NOAA	Phenology gardens: flowering 6.3 days earlier than 50 years ago	Climate research the public can see
Donors and foundations	Kew: 3.8-to-1 benefit-to-cost ratio	A proven, measurable return

Applied to Boulder's projection

These studies support the estimates in the Visitor Report. At Olbrich's rate, about \$54 per visit, the base case of 250,000 visits would generate about \$13.5 million a year in local economic activity. Boulder's higher tourist share points to the upper end of the range, with Coastal Maine's rate, about \$125 per visit, as the high mark.

Limits of the evidence

The findings are consistent, but they come from different methods, so treat them as direction rather than precise forecasts.

- **Methods differ.** Some studies count only visitor spending; others add the garden's own operations and construction. Coastal Maine's \$41.9 million, for example, includes capital spending.
- **Many gardens fund their own studies.** The BGCI review notes that most gardens measure activity, such as visitor counts, rather than impact, and calls for more independent evaluations.
- **Surveys are directional.** Philadelphia's visitor survey used intercept sampling by garden staff; its authors call the visitor profile "directional rather than definitive."
- **Property-value evidence is thin.** Only a handful of studies look at gardens specifically.
- **The health study covers nature broadly,** not gardens alone.

The remedy is a Boulder-specific study. CU's Leeds Business Research Division, which produces the University of Colorado's own economic impact studies, could measure the garden's impact independently.

Sources

1. Smith and Harvey-Brown, *The economic, social and environmental impacts of botanic gardens*, BGCI Technical Review, 2018
2. Econsult Solutions, *The Economic Impact of Greater Philadelphia Gardens*, 2016
3. Oxford Economics, *The Economic Value of Royal Botanic Gardens*, Kew, 2023
4. Franklin Park Conservatory: Economic Impact Study 2026
5. Wisconsin Office of Outdoor Recreation: Olbrich Botanical Gardens, 2025; WKOW coverage
6. Mainebiz and News Center Maine: Coastal Maine Botanical Gardens economic impact
7. White et al., time in nature and health, *Scientific Reports*, 2019
8. University of Colorado: economic impact study by the Leeds Business Research Division
9. Boulder Botanical Gardens Visitor Report, October 2026