Background

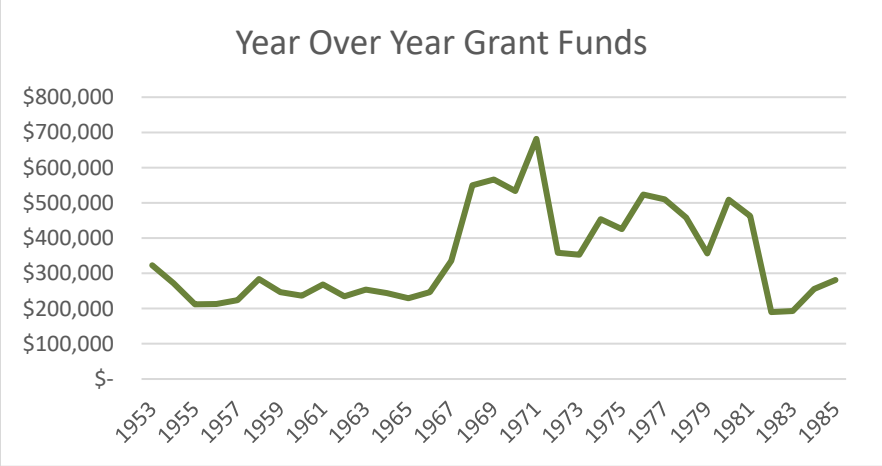
When Europeans arrived in what is now New York, wild turkeys were found state-wide. By the mid-1800s due to habitat loss and unregulated hunting, turkeys had been eliminated from the state. In the 1950s, the New York State Department of Environmental Conservation began an active restoration effort funded by grants from the Federal Aid in Wildlife Restoration Program. Following an active and persistent program, by 1985 wild turkey populations were considered restored throughout their range in the state.

This summary economic analysis was conducted for the U.S. Fish and Wildlife Service's Wildlife Restoration Program in concert with the New York Department of Conservation. It presents the benefits to the public from the restoration of wild turkey populations statewide, based on the costs of the restoration effort and subsequent expenditures by the public who hunt wild turkey, from 1985 through 2020. We also examined the value (in meals) of this wild food source to households.

Executive Summary:

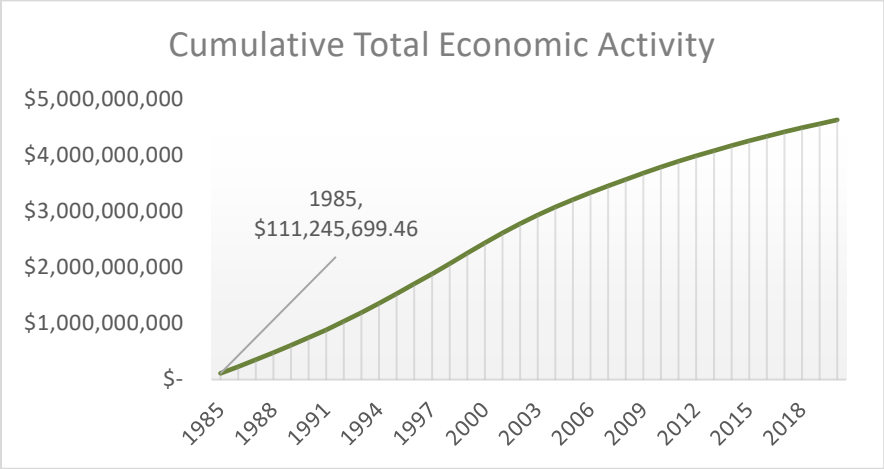
The restored New York turkey population now has economic, ecological, aesthetic and wildlife viewing values. It is scientifically managed, sustainable and supports regulated hunting opportunities for the public. Benefits include:

- An annual average of $348,095 in grant dollars was devoted to turkey restoration between 1953-1985 by the New York Department of Environmental Conservation.

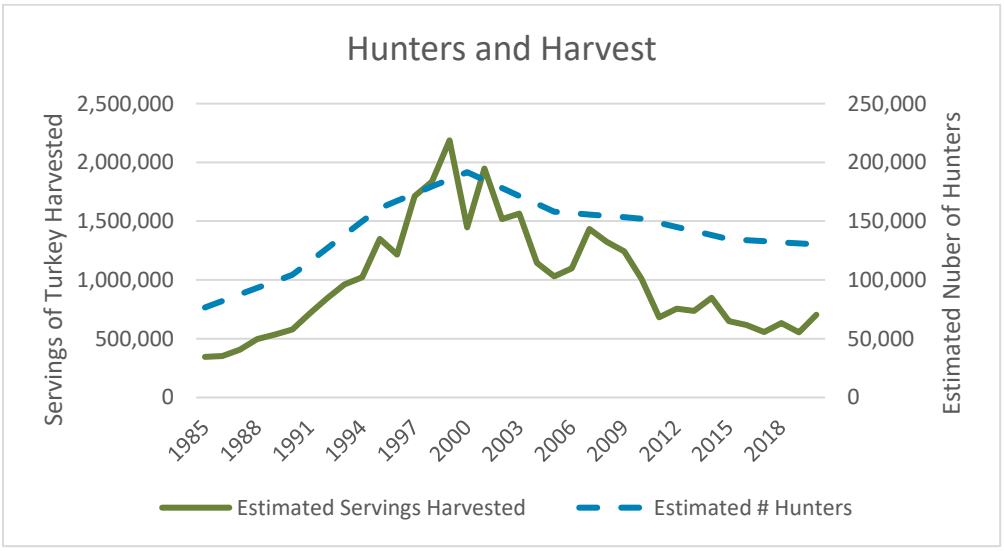


- The $2.7 million (worth $11.5 million in 2020 dollars) of grant funding from 1953-1985 became the foundation of a thriving industry, with turkey hunters spending an average of $76.9 million per year in New York since 1985. Annual turkey hunter expenditures are 6.7 times greater than the total grant funds spent on restoration.

- The amount spent by turkey hunters generates an average of $128.7 million of economic activity in New York each year. This is more than ten times the total grant dollars spent on turkey restoration from 1953-1985.
- Since 1985, turkey hunters have spent a total of $2.8 billion in 2020 dollars, which has in turn generated a total of $4.6 billion in economic activity in New York as these dollars work their way through the state's economy.



- Turkey hunting currently supports 555 jobs in New York. These range from hunting supply stores to local motels and restaurants to urban and rural businesses statewide.
- Since 1985, 1,213,654 turkey have been harvested, with an average of 33,713 per year. This equates to 36,062,862 meals for households (standard USDA3.5oz/serving). This is high quality protein from a wild-sourced food for the public.
- This is enough to feed more than half of Manhattan's residents this Thanksgiving.



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Data Sources & Methods:
Data sources include:

- Annual Federal Aid in Wildlife Restoration grant funding invested in turkey restoration from 1952 through 1985, when populations were considered restored in New York.
- Annual turkey harvests, number of hunters and days of effort from 1985 to 2020 as provided by the New York State Department of Environmental Conservation. Number of hunters and days of effort were collected every 5 years, requiring that estimates were generated for those years when data were unavailable.
- Hunter spending and economic multipliers were sourced from USFWS's *Turkey Hunting in 2006: An Analysis of Hunter Demographics, Trends and Economic Impacts* report.
- Inflation data from the U.S. Bureau of Labor Statistics 1950-2020.
- U.S. Department of Agriculture. USDA National Retail Report – Turkey.

This project compiled total turkey restoration costs using NYDEC Wildlife Grant Reports to the USFW Wildlife and Sport Fish Restoration program from 1952 -1985, at which time we concluded turkeys were "restored." These grant expenditures were compared to total calculated expenditures by turkey hunters to determine the benefits to the state economy. All restoration and hunting expenditures were adjusted to represent 2020 figures using consumer price index. Consumer price index represents the amount of money necessary to purchase a basket of goods, and by using the ratio of the amount in year X to the base year, dollar figures can be adjusted for inflation and directly compared from years apart.

Per day expenditures and economic multipliers were estimated based on data from a USFWS' report, *Turkey Hunting in 2006: An Analysis of Hunter Demographics, Trends and Economic Impacts*. These data were scaled for inflation and days of hunter effort to estimate the annual expenditures of turkey hunters in New York. The estimated annual expenditures were then multiplied by economic multiplier estimated in the aforementioned USFWS report to generate the total economic output attributable to turkey hunting related expenditures. Total multiplier effects represent not only the first round of spending (expenditures), but also the value added as dollars move through the supply chain and the state economy. These multipliers were estimated in the 2006 report using Implan, an input-output modelling software.

In this analysis, we are comparing 33 years of grant costs/investments to 36 years of calculated benefits derived from a restored turkey population and associated public hunting. It is important to note that the goal was to compare post-restoration economic activity to pre-restoration investments only. Ongoing turkey management costs are not deducted or included. All economic activity since 1985 is considered pure economic benefit.

The purpose of this analysis it to understand the benefits and opportunities WSFR grant funding creates on behalf of the public. These benefits are multiple (ecological, cultural, social, and economic) and in this report we provide analysis only on the economic benefits, which are substantial, both in terms of food and expenditures, to the public.