



Infrastructure Cost: Broadband Expansion

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Task title: Average cost-per-mile derivation

Task Description: Explanation of the average cost-per-mile estimation based on historical data from previous projects similar to El Paso, TX.

CHALLENGE

- Limited information, based on reports from similar counties where broad expansion has been successful
- Overall cost varies on drop cost depending aerial or buried.
- Cost depends on population density, available dark fiber, and construction expenditure.
- Utilize this information, adjusted for differences in cost-of-living, as a basis for estimating similar costs in El Paso County
- Cost-of-living indices may vary widely from quarter to quarter, resulting in slightly different adjusted estimates, depending on when they were calculated.

DATA

- Data was used from multiple reports:

Location	Total Cost	Total Miles	Cost per Mile	Year
Fort Collins, CO	\$109,217,775	938	\$116,437	2020
Spring Hills, KS	\$4,770,000	39.75	\$120,000	2018
Dayton, TX	\$13,700,000	70	\$195,714	2020
Mont Belvieu, TX	\$13,000,000	75	\$173,333	2016
Chattanooga, TN	\$390,000,000	6,000	\$65,000	2000
Lucas, TX	\$20,650,000	108	\$191,204	2020

PROCESS

- The average of \$90,000 was estimated in current dollars for 2021, adjusted for cost-of-living indices prevailing at the time of completion of the “Broadband Cost Comparative Analysis.”
- A cost-of-living adjustment was applied to reflect the El Paso, TX region using: *Cost-of-Living*. (n.d.). Sperling’s Best Places. <https://www.bestplaces.net/cost-of-living/>
- The adjusted cost per mile, taking into consideration population density, is in line with that of similar counties as described on page 31 & 32 of the “Broadband Cost Comparative Analysis”

References:

- Connexion Monthly Report. (2021, January 1). Www.Fcgov.Com. <https://www.fcgov.com/connexion/files/january-2021-connexion-monthly-report.pdf?1612381947>
- FAQs • City of Spring Hill • CivicEngage. (n.d.). Springhillks.Gov. <https://springhillks.gov/Faq.aspx?QID=146>
- Another Fiber Optic Project in Texas Aims to Connect Residents and. (n.d.). Community Broadband Networks. <https://muninetworks.org/content/another-fiber-optic-project-texas-aims-connect-residents-and-businesses>
- Gonzalez, L. (2018, October 24). Court Confirms Texas City has Authority to Build, Finance Community-Owned Network. Institute for Local Self-Reliance. <https://ilsr.org/court-confirms-texas-city-has-authority-to-build-finance-community-owned-network/>
- Mitchell, C. (2021, February 24). Broadband at the Speed of Light. Institute for Local Self-Reliance. <https://ilsr.org/broadband-speed-light/>
- <https://storage.googleapis.com/proudcity/lucastx/uploads/2020/07/Final-Broadband-Study-City-of-Lucas-Broadband-Design-and-Financial-Model.pdf>