A Meta-analysis of Teach For America Teacher Impacts

Martyna Citkowicz | Charlotte Chen | Marina Castro | Brenda Arellano September 2024

Teach For America (TFA) is a nationwide program dedicated to recruiting, selecting, and training new leaders to teach in high-need schools. By developing and supporting equity-oriented leaders, TFA aims to transform education and expand opportunity for all children. With nearly 70,000 leaders in its network, TFA partners with educators, policymakers, and communities to help students meet key educational milestones that put them on the path to college and life success.

Over the years, TFA has evolved its program model to better meet the needs of students and communities. By 2005, TFA developed the Teaching As Leadership framework for Corps Members (CMs) and received research support validating its effectiveness. Between 2000 and 2010, TFA expanded its centralized model, achieving notable successes in student learning outcomes. In the early 2010s, the organization shifted to a decentralized approach, focusing more on regional programming to foster community-specific innovations. In the late 2010s, TFA introduced the Theory of Leadership and prioritized financial efficiency, further refining its strategy to enhance impact. Most recently, TFA has shifted focus from the individual to the network and collective leadership and centered its approach on the participants—CMs and alumni—to deliver a high-quality program that adapts to the changing educational landscape, especially in response to challenges such as the COVID-19 pandemic.

The goal of this meta-analysis is to synthesize the effects of TFA teachers on student achievement across 23 studies spanning 24 years. It aims to explore how these effects vary by study design, TFA CM and/or alumni status, grade level, and time period. This analysis will provide valuable insights into the effectiveness of TFA's evolving program and its impact on student outcomes, guiding future strategic decisions to enhance educational equity nationwide.

What We Did

With TFA's support, we first collected TFA impact study reports from 2000 to 2024—those conducted both by AIR and by other organizations or researchers. To be selected for the meta-analysis, studies needed to (1) examine the impacts of TFA CMs or alumni on student English language arts (ELA), math, or science achievement; (2) use a randomized controlled trial (RCT) or quasi-experimental design (QED); and (3)

The meta-analysis included 23 studies with more than 63,134 teachers and over 5,270,165 students.

have enough information to compute effect sizes (defined below). We identified 23 studies that met our criteria.

Second, we coded all 23 studies for relevant study information, including information on when and where the study took place, study design, grade level, and outcomes examined. We also captured information on the impacts of TFA teachers (CMs and/or alumni) on student achievement outcomes (ELA, math, and science achievement). After coding was complete, we computed effect sizes for each of the outcomes coded.[1] Converting the study findings into effect sizes created a common metric for the study outcome findings and allowed us to aggregate and analyze information across the studies.

Third, we conducted random-effects meta-analyses using the coded information, separately for ELA, math, and science outcomes.[2] We first computed mean-only (or unadjusted) models that aggregated effect sizes to calculate the overall means for each type of achievement outcome. We then computed meta-regression models that aggregated effect sizes while controlling for study, sample, or design characteristics. From these meta-regression models, we extracted the conditional means each for the type of study design (RCT or QED), TFA status (CM and/or alumni), grade level (prekindergarten to kindergarten, elementary, middle, and high school),[3] and different time periods.[4]

Fourth, we examined variation in effects using the model-based variance estimates (by summing both the within- and between-study components) and 95% prediction intervals (i.e., estimated dispersion of the middle 95% of true underlying effects; Borenstein et al., 2017).[5] We also calculated the probability that a random TFA intervention effect has a positive impact on achievement by estimating the percentage of true effects that were positive (i.e., greater than 0; IntHout et al., 2016; Mathur & VanderWeele, 2019).

Last, we created an evidence gap map to identify areas where TFA impact studies have been conducted and where TFA impact studies have not been conducted. Specifically, we examined gaps in research by grade level[6] and subject.

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[1] We computed the standardized mean difference effect size and used Hedges's (1981) small sample bias correction to account for small studies.

[2] Meta-analysis is a statistical technique that combines results from multiple effects by weighting the contribution of each estimate of the effect based on the statistical precision with which that effect was estimated. Effects that are estimated from a more precise sample (generally, the study sample with the largest number of participating students) are weighted more heavily in the pooled effect, allowing the larger sample to contribute more information in calculating the overall pooled effect. Random-effects models account for variation between studies and estimate average effects of the distribution of treatment effects across various study settings and samples.

[3] Studies could be included in more than one grade level if the grades included in the study overlapped with more than one grade level.

[4] The time periods were defined by TFA based on key changes in their program. Studies could be included in more than one time period if the years of data included in the study overlapped with more than one time period.

[5] The prediction intervals were based on a standard normal distribution: PI = ES ± τ (1.96), where ES is the estimated average effect and τ is the estimated between-effect standard deviation.

[6] We combined prekindergarten to kindergarten and elementary grades into one "elementary" grade level and middle and high school into "secondary"; any overlap is labeled as "both."

What We Found

The meta-analysis included 23 studies that examined the impacts of TFA teachers on student achievement. Exhibit 1 lists the included studies and key summary information about each study, including the type of outcome the study contributed. Twenty studies contributed 36 ELA outcomes, 22 studies contributed 36 math outcomes, and 5 studies contributed 5 science outcomes.

The average statistically significant effects were 0.05 for math and 0.16 for science, indicating positive impacts of TFA on both math and science achievement.

The unadjusted average effect for ELA achievement was less than 0.01, which was not statistically significant from zero (see Exhibit 2). Variation in study effects was small (τ = 0.06). The estimated middle 95% of true underlying effects (i.e., the 95% prediction interval) was between –0.11 and 0.11. Based on the average effect and overall variation, the probability that a random TFA intervention effect has a positive impact on ELA achievement is 50%.

Next, we examined whether effects differed by study design, TFA status, grade level, and different time periods. Looking at the magnitude of the conditional means, we see that effects were larger for RCTs (ES = 0.06), studies that included alumni only (ES = 0.10), studies that included prekindergarten to kindergarten (ES = 0.14) or high school (ES = 0.08) grades, and studies that included data from the late 2010s (ES = 0.06).

The unadjusted average effect for math achievement was 0.05, which is statistically significant from zero (see Exhibit 3). Variation in study effects was small (τ = 0.07). The estimated middle 95% of true underlying effects was between –0.10 and 0.19. The probability that a random TFA intervention effect has a positive impact on math achievement is 74%.

Based on the conditional means, effects were larger for studies that included alumni only (ES = 0.09), studies that included prekindergarten to kindergarten (ES = 0.18) or high school (ES = 0.15) grades, and studies that included data from the late 2010s (ES = 0.09). Effects were smaller for studies that included postpandemic data (ES = –0.13).

The average effect for science achievement was 0.16, which is statistically significant from zero (see Exhibit 4). Variation in study effects was small (τ = 0.05). The estimated middle 95% of true underlying effects was between 0.07 and 0.25. The probability that a random TFA intervention effect has a positive impact on science achievement is 99.98%.

Exhibit 1. Table of Studies Included in the Meta-analysis

Citation	TFA status	Region	Time period*	Study design	Grade level	Number of teachers	Number of students	Outcomes
Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Vasquez Heilig, J. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach For America, and teacher effectiveness. *Education Policy Analysis Archives, 13*(42). https://doi.org/10.14507/epaa.v13n42.2005	Corps members	Houston	1	QED	4–5	Not reported	60,488–60,607	ELA and math
Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy, 1*(2), 176–216. https://doi.org/10.1162/edfp.2006.1.2.176	Alumni and corps members	New York City	1	QED	3–8	Not reported	926,958–1,035,949	ELA and math
Glazerman, S., Mayer, D., & Decker, P. (2006). Alternative routes to teaching: The impacts of Teach For America on student achievement and other outcomes. *Journal of Policy Analysis and Management, 25*(1), 75–96. https://doi.org/10.1002/pam.20157	Corps members	National—Baltimore, Chicago, Los Angeles, Houston, New Orleans, and the Mississippi Delta	1	RCT	1–5	Not reported	1,629–1,710	ELA and math
Kane, T. J., Rockoff, J. E., & Staiger, D. O. (2008). What does certification tell us about teacher effectiveness? Evidence from New York City. *Economics of Education Review, 27*(6), 615–631. https://doi.org/10.1016/j.econedurev.2007.05.005	Alumni and corps members	New York City	1	QED	4–8	18,856–19,083	607,563–623,482	ELA and math
Xu, Z., Hannaway, J., & Taylor, C. (2011). Making a difference? The effects of Teach For America in high school. *Journal of Policy Analysis and Management, 30*(3), 447–469. https://doi.org/10.1002/pam.20585	Corps members	North Carolina	2	QED	9–12	Not reported	50,180–63,594	Math and science

Citation	TFA status	Region	Time period*	Study design	Grade level	Number of teachers	Number of students	Outcomes
Turner, H., Goodman, D., Adachi, E., Brite, J., & Decker, L. (2012). *Evaluation of Teach For America in Texas schools*. Edvance Research.	Alumni and corps members	Texas—Dallas-Fort Worth, Houston, the Rio Grande Valley, and San Antonio	2	QED	4–8	Not reported	1,660–9,542	ELA and math
Clark, M. A., Chiang, H. S., Silva, T., McConnell, S., Sonnenfeld, K., Erbe, A., & Puma, M. (2013). *The effectiveness of secondary math teachers from Teach For America and the Teaching Fellows programs* (NCEE 2013-2015). U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. https://ies.ed.gov/ncee/pubs/20134015/pdf/20134015.pdf	Alumni and corps members	National across eight states	2	RCT	6–12	136	4,573	Math
Henry, G. T., Bastian, K. C., Fortner, C. K., Kershaw, D. C., Purtell, K. M., Thompson, C. L., & Zulli, R. A. (2014). Teacher preparation policies and their effects on student achievement. *Education Finance and Policy, 9*(3), 264–303. https://doi.org/10.1162/EDFP_a_00134	Alumni and corps members	North Carolina	2	QED	3–12	453–3,101	5,620–34,268	ELA, math, and science
Ready, D. D. (2014). *Teach For America teachers in Duval County Public Schools: An analysis of retention and performance*. Columbia University, Teachers College. https://www.qeafund.org/wp-content/uploads/2012/10/FINAL_TFA_DUVAL-1.pdf	Corps members	Jacksonville	2 and 3	QED	3–10	5,242–6,215	147,651–152,560	ELA and math
Clark, M. A., Isenberg, E., Liu, A. Y., Makowsky, L., & Zukiewicz, M. (2015). *Impacts of the Teach For America Investing in Innovation scale-up.* Mathematica Policy Research.	Corps members	National across 10 states	3	RCT	PreK–5	27–123	412–1,653	ELA and math

Citation	TFA status	Region	Time period*	Study design	Grade level	Number of teachers	Number of students	Outcomes
Hansen, M., & Sass, T. R. (2015, October). *Performance estimates of Teach For America teachers in Atlanta metropolitan area school districts* (Working Paper No. 145). CALDER. https://caldercenter.org/sites/default/files/WP%20145_0.pdf	Alumni and corps members	Atlanta	2 and 3	QED	3–8	Not reported	360,841–528,038	ELA, math, and science
Penner, E. K. (2016). Teaching for all? Teach For America's effects across the distribution of student achievement. *Journal of Research on Educational Effectiveness, 9*(3), 259–282. http://doi.org/10.1080/19345747.2016.1164779	Corps members	National—Baltimore, Chicago, Los Angeles, Houston, New Orleans, and the Mississippi Delta	1	RCT	2–5	Not reported	1,430	ELA and math
Chiang, H.S., Clark, M.A., & McConnell, S. (2017). Supplying disadvantaged schools with effective teachers: Experimental evidence on secondary math teachers from Teach For America. *Journal of Policy Analysis and Management, 36*(1), 97–125. https://doi.org/10.1002/pam.21958	Alumni and corps members	National across eight states	2	RCT	6–12	30–100	1,200–3,370	Math
Backes, B., Hansen, M., Xu, Z., & Brady, V. (2019). Examining spillover effects from Teach For America corps members in Miami-Dade County Public Schools. *Journal of Teacher Education, 70*(5), 453–471. https://doi.org/10.1177/0022487117752309	Alumni and corps members	Miami-Dade	2 and 3	QED	K–12	24,459–31,038	938,494–1,479,228	ELA and math
Cohen, A., Mansukhani, A., & Yuen, A. (2019). *Teach For America and student performance in Indianapolis Public Schools: Evidence from the 201—2017 and 2017–2018 school years*. Richard M. Fairbanks Foundation (unpublished).	Corps members	Indianapolis	4	QED	4–8	168–212	2,903–3,552	ELA and math

Citation	TFA status	Region	Time period*	Study design	Grade level	Number of teachers	Number of students	Outcomes
Hester, C., Massengale, N., Quinn, S., Morey, M., & Drummond, K. (2019, December). *Brookview Literacy Initiative implementation and impact evaluation: Year 4 report*. American Institutes for Research.	Alumni and corps members	Atlanta	4	QED	K–3	Not reported	1,648–4,041	ELA
Penner, E. K. (2019). *Teach For America and teacher quality: Increasing achievement over time. Educational Policy, 35*(7), 1047–1084. https://doi.org/10.1177/0895904819843595	Corps members	North Carolina	1 and 2	QED	Elementary, middle, and high school	47–66	317,953–1,046,862	ELA, math, and science
An, Y., & Koedel, C. (2020, September). *How do teachers from alternative pathways contribute to the teaching workforce in urban areas? Evidence from Kansas City* (Working Paper No. 243-0920). CALDER. https://caldercenter.org/sites/default/files/WP%20243-0920.pdf	Alumni and corps members	Kansas City	3 and 4	QED	4–8	2,099–2,325	185,284–186,614	ELA and math
Citkowicz, M., Yisak, M., & Fulbeck, E. (2020). *TFA regional impact study*. American Institutes for Research.	Alumni and corps members	Colorado	4	QED	4–8	39–95	2,195–4,707	ELA and math
Clark, M. A., & Isenberg, E. (2020). Do Teach For America Corps members still improve student achievement? Evidence from a randomized controlled trial of Teach For America's Scale-Up Effort. *Education Finance and Policy, 15*(4), 736–760. https://doi.org/10.1162/edfp_a_00311	Corps members	National	3	RCT	PreK–5	83–154	1,182–2,123	ELA and math
Dhillion, S., Citkowicz, M., Chen, C., Semma, B., Joshi, M., Olivar, S. M., Williams, R., & Gerdeman, D. (2022). *Student achievement outcomes for a sample of Teach For America teachers during the COVID pandemic*. American Institutes for Research.	Corps members	Texas—Austin, Dallas-Fort Worth, Houston, Rio Grande Valley, and San Antonio	5	QED	5–12	54–55	1,640–2,534	ELA and math

Citation	TFA status	Region	Time period*	Study design	Grade level	Number of teachers	Number of students	Outcomes
Nathenson, R., Pardo, M., Subedi, S., Henry, C., Joshi, M., Lachowicz, M., Neering, K., Peko-Spicer, S., Castro, M., Duran, A., Su, A., Baumann, E., & Meyer, C. (2022, December). *Teach For America national AmeriCorps evaluation: 2017–18 and 2018–19 school year*. American Institutes for Research.	Alumni and corps members	National—Bay Area, Colorado, Las Vegas, Los Angeles, New Jersey, New York City, and North Carolina (ENC and Charlotte)	4	QED	4–8	229–309	8,789–13,417	ELA and math
Citkowicz, M., Chen, C., Castro, M., & Arellano, B. (2024). *Student achievement outcomes for a sample of Teacher For America teachers in the southern region of the United States*. American Institutes for Research.	Corps members	National	5	QED	4–12	58–122	3,177–6,311	ELA, math, and science

Note. RCT = randomized controlled trial; QED = quasi-experimental design; ELA = English language arts.

* Period 1 is pre-2005, Period 2 is 2000s to 2010, Period 3 is early 2010s, Period 4 is late 2010s, Period 5 is postpandemic.

Exhibit 2. Mean Impact Estimates for ELA Achievement

	Mean	SE	Number of studies	Number of effects	*p*-value
Overall mean	<0.01	0.01	20	36	0.99
Study design					
Randomized controlled trial	0.06	0.02	4	5	
Quasi-experimental design	0.02	0.01	16	31	
TFA corps member (CM) or alumni status*					
Both CMs and alumni	0.04	0.01	8	16	
Alumni only	0.10	0.09	2	3	
CMs only	–0.01	0.02	12	17	
Grade level					
Prekindergarten to kindergarten	0.14	0.06	4	4	
Elementary (Grades 1–5)	0.03	0.02	20	29	
Middle (Grades 6–8)	0.04	0.03	14	21	
High (Grades 9–12)	0.08	0.01	6	6	
Time period					
Period 1 (pre-2005)	<0.01	0.01	6	8	
Period 2 (2000s–2010)	0.01	0.02	6	12	
Period 3 (early 2010s)	–0.02	0.03	6	7	
Period 4 (late 2010s)	0.06	0.03	5	14	
Period 5 (postpandemic)	–0.04	0.11	2	2	

Note. ELA = English language arts; SE = standard error.

* The total number of studies that include both CMs and alumni, alumni only, and CMs only is 22. This exceeds the total number of studies examining the impact of TFA teachers on students' ELA outcomes (*n* = 20) because two studies analyzed both the effects of CMs only and the effects of alumni only.

Exhibit 3. Mean Impact Estimates for Math Achievement

	Mean	SE	Number of studies	Number of effects	*p*-value
Overall mean	0.05	0.02	22	36	0.01
Study design					
Randomized controlled trial	0.05	0.03	6	8	
Quasi-experimental design	0.05	0.02	16	28	
TFA corps member (CM) or alumni status *					
Both CMs and alumni	0.07	0.01	9	15	
Alumni only	0.09	0.13	2	3	
CMs only	0.02	0.02	13	18	
Grade level					
Prekindergarten to kindergarten	0.18	0.05	3	3	
Elementary (Grades 1–5)	0.05	0.02	19	26	
Middle (Grades 6–8)	0.07	0.03	16	23	
High (Grades 9–12)	0.15	0.02	9	9	
Time period					
Period 1 (pre-2005)	0.04	0.02	6	8	
Period 2 (2000s–2010)	0.03	0.02	9	16	
Period 3 (early 2010s)	0.05	0.04	6	7	
Period 4 (late 2010s)	0.09	0.02	4	10	
Period 5 (postpandemic)	–0.13	0.06	2	2	

Note. SE = standard error.

*The total number of studies that include both CMs and alumni, alumni only, and CMs only is 24. This exceeds the total number of studies examining the impact of TFA teachers on students' math outcomes (*n* = 22) because two studies analyzed both the effects of CMs only and the effects of alumni only.

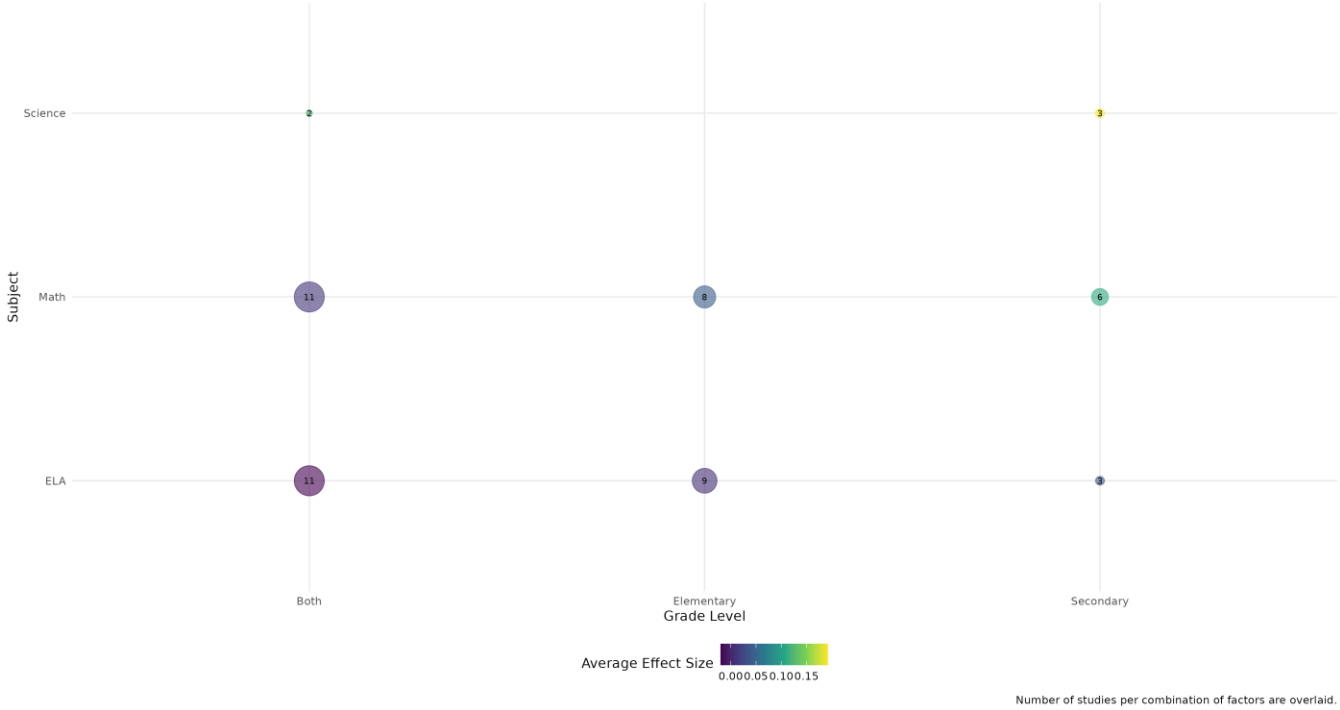
Exhibit 4. Mean Impact Estimates for Science Achievement

	Mean	SE	Number of studies	Number of effects	*p*-value
Overall mean	0.16	0.03	5	5	0.01

Note. SE = standard error.

Exhibit 5 presents the evidence gap map, with grade level on the x-axis and subject on the y-axis. The size of the circle represents the number of TFA impact studies conducted (also specified within the circle) and the color of the circle represents the average effect size (i.e., impact estimate of TFA). From the exhibit, we can see that the largest effects are for science achievement (represented by the green and yellow circles), which aligns with our findings above. The exhibit also shows that most of the TFA impact studies conducted include both elementary and secondary grades, which represents many of the studies focused on Grades 4–8. Few studies include secondary grades only, particularly high school grades, and even fewer studies examined impacts on science achievement.

Exhibit 5. Evidence Gap Map



Note. ELA = English language arts. For values that may be hard to see, the number of studies conducted for science achievement in both elementary and secondary grades was two, for elementary it was none, and for secondary it was three. The number of studies conducted for math achievement in secondary grades was six and for ELA achievement in secondary grades was three.

Future Studies

Future studies could focus on aligning particular areas of focus with TFA's current priorities. Ignite is a small-group virtual learning program that is part of TFA and focuses support services on elementary reading or middle school math in communities. A future study could focus on the impacts of students of TFA teachers and those who also received Ignite support in elementary reading or middle school math. Another area of study could focus on additional postpandemic data to gain a full picture of how TFA's new program model, which emerged during and after the pandemic, supports student learning and teacher practice. The most recent impact study looked at 2021–22 student achievement in one state. Adding in additional years of data and across more regions could broaden the findings of this study that found positive effects on science achievement for students of TFA teachers in high school.

References

Borenstein, M., Higgins, J. P. T., Hedges, L. V., & Rothstein, H. R. (2017). Basics of meta-analysis: *I2* is not an absolute measure of heterogeneity. *Research Synthesis Methods, 8*(1), 5–18. https://doi.org/10.1002/jrsm.1230

Hedges, L. V. (1981). Distribution theory for Glass's estimator of effect size and related estimators. *Journal of Educational Statistics, 6*(2), 107–128. https://doi.org/10.3102/10769986006002107

IntHout, J., Ioannidis, J. P., Rovers, M. M., & Goeman, J. J. (2016). Plea for routinely presenting prediction intervals in meta-analysis. *BMJ Open, 6*(7), Article e010247. https://doi.org/10.1136/bmjopen-2015-010247

Mathur, M. B., & VanderWeele, T. J. (2019). New metrics for meta-analyses of heterogeneous effects. *Statistics in Medicine, 38*(8), 1336–1342. https://doi.org/10.1002/sim.8057

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1400 Crystal Drive, 10th Floor
Arlington, VA 22202-3289
+1.202.403.5000 | AIR.ORG

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