

Final Project

Maiko Hata & Michelle Cui

Introduction

The Individuals with Disabilities Education Act (IDEA) Part C is a federal grant program that supports states in providing Early Intervention (EI) services for children zero to two who experience developmental delays and/or disabilities (Early Childhood Technical Assistance Center, 2023). These EI services incorporate family-centered practices, aiming to support caregivers' understanding of their children to provide the most effective support for their development (Romano, 2006). However, racially and/or linguistically minoritized children are less likely than White, English speaking monolingual children to receive EI services (Morgan et al., 2012a).

The IDEA Section 618 requires that the data is collected on children who had an active IFSP who stopped receiving services, or “exited” EI services (U.S. Department of Education [DOE], 2024). Recent data revealed that racially and/or linguistically marginalized infants and toddlers are much more likely to leave EI services via disqualification from EI services due to non-response to agencies' outreach efforts after they had been made eligible. The purpose of this study is to explore the patterns in which families from racially and/or linguistically marginalized communities leave EI services.

Methods

This project examined extant data on EI service exit from 2013-2022, which was obtained online from the Office of Special Education Services (OSEP, 2024). The goal of this study was to understand associations between children's race and exit reasons, which then was compared to the data from Oregon which was also obtained from OSEP (2024).

Variables: Student' race served as the independent variable (IV), while exit reason served as the dependent variable (DV). There were seven IVs (Alaska Native/American Indian, Asian, Black/African American, Hispanic, Multiracial, Pacific Islander, White), and ten DVs that were collapsed into 6 categories:

- Attempts to contact unsuccessful (DQ)
- Withdrawal by parent (Withdrawal)
- Complete/not eligible for Part B (Complete or Not Eligible)
- Moved out of state (Moved Out)
- Part B eligibility not determined (Eligibility Not Determined)
- Part B eligible (Eligible)

Preparatory work: As the original data sets from OSEP contained dependent variables that are beyond the scope of this study (e.g. “deceased”), we prepared the data specified below:

1. Created an Excel sheet from the national and Oregon datasets
2. Imported Excel sheet into RStudio
3. Removed two DVs that are beyond the scope of this study
4. Combined three similar DVs into one
5. Collapsed multiple years into one aggregated data

Data Analysis: We used chi-square(X2) goodness of fit test to understand associations between children’s race and their EI exit reasons. We used fundamental statistical functions and ran chi-square to test our null-hypothesis, which was that there was no associations between children’s races and their exit reasons. For this project, Black/African American and White children and their association with ”

Results

The initial exploration included exit data from 3,310,559 children who exited the EI services between 2013 and 2022 nationally. Approximately ____% of the children were Black/African American, while ____ children reported as being White. The chi-square omnibus test indicated that there was a statistically significant association between children’s race and their exit reasons, X-squared (30, N = 3,310,559) = 52218, $p < 2.2\text{e-}16$ or 0.000000000000000022.

Looking specifically at the Attempts to Contact Unsuccessful/DQ category, approximately 13.5% of Black/African American children exited EI per disqualification due to agencies losing contact with families, while only about 5.98% of White children were disqualified from services for the same reason (Figure 1). The chi-square indicated that there was a statistically significant association between children being Black/African American or White and them leaving EI due to being disqualified, (CHI SQUARE VALUES BASED ONLY ON THE us_data_DQ_proportion BUT WITH JUS TBLACK AND WHITE!)

Pearson's Chi-squared test

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data: race_us[, 3:8]
X-squared = 52218, df = 30, p-value < 2.2e-16
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Figure 1: Unsuccessful Contacts/DQ (U.S.)

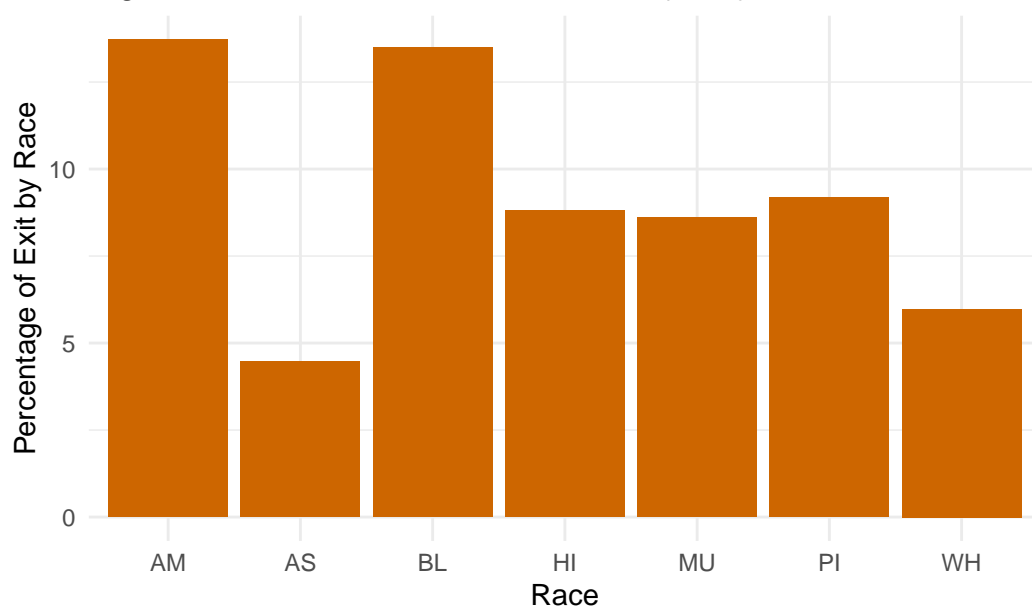
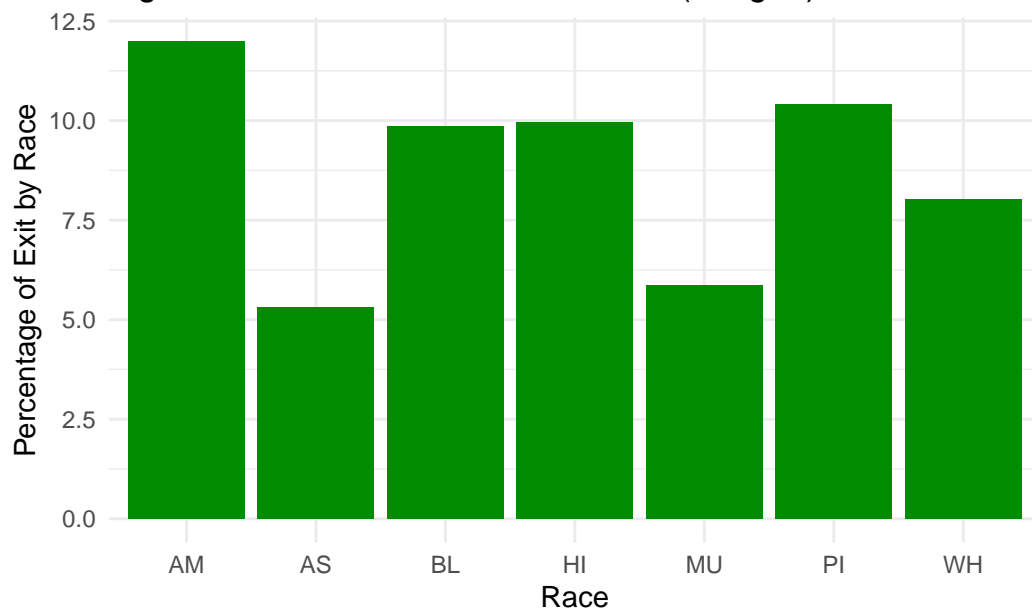


Figure 2: Unsuccessful Contacts/DQ (Oregon)



Chi-squared test for given probabilities

```
data: us_data_DQ[, 2]  
X-squared = 4788740, df = 6, p-value < 2.2e-16
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Discussion

References

Early Childhood Technical Assistance Center [ecta], (2023, October 6). *Part C of IDEA*. ecta. <https://ectacenter.org/partc/partc.asp>

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Romano, S.D. (2006). Historical perspectives. In G. M. Foley & J.D. Hochman (Eds.), *Mental health in early intervention: Achieving unity in principles and practice* (pp. 33-58). Baltimore: Paul H. Brookes Publishing Company.

Morgan, P. L., Farkas, G., Hillemeier, M. M., & Maczuga, S. (2012a). Are Minority Children Disproportionately Represented in Early Intervention and Early Childhood Special Education? *Educational Researcher*, 41(9), 339–351. <https://doi.org/10.3102/0013189X12459678>

Morgan, P. L., Farkas, G., Hillemeier, M. M., & Maczuga, S. (2012b). Are Minority Children Disproportionately Represented in Early Intervention and Early Childhood Special Education? *Educational Researcher*, 41(9), 339–351. <https://doi.org/10.3102/0013189X12459678>