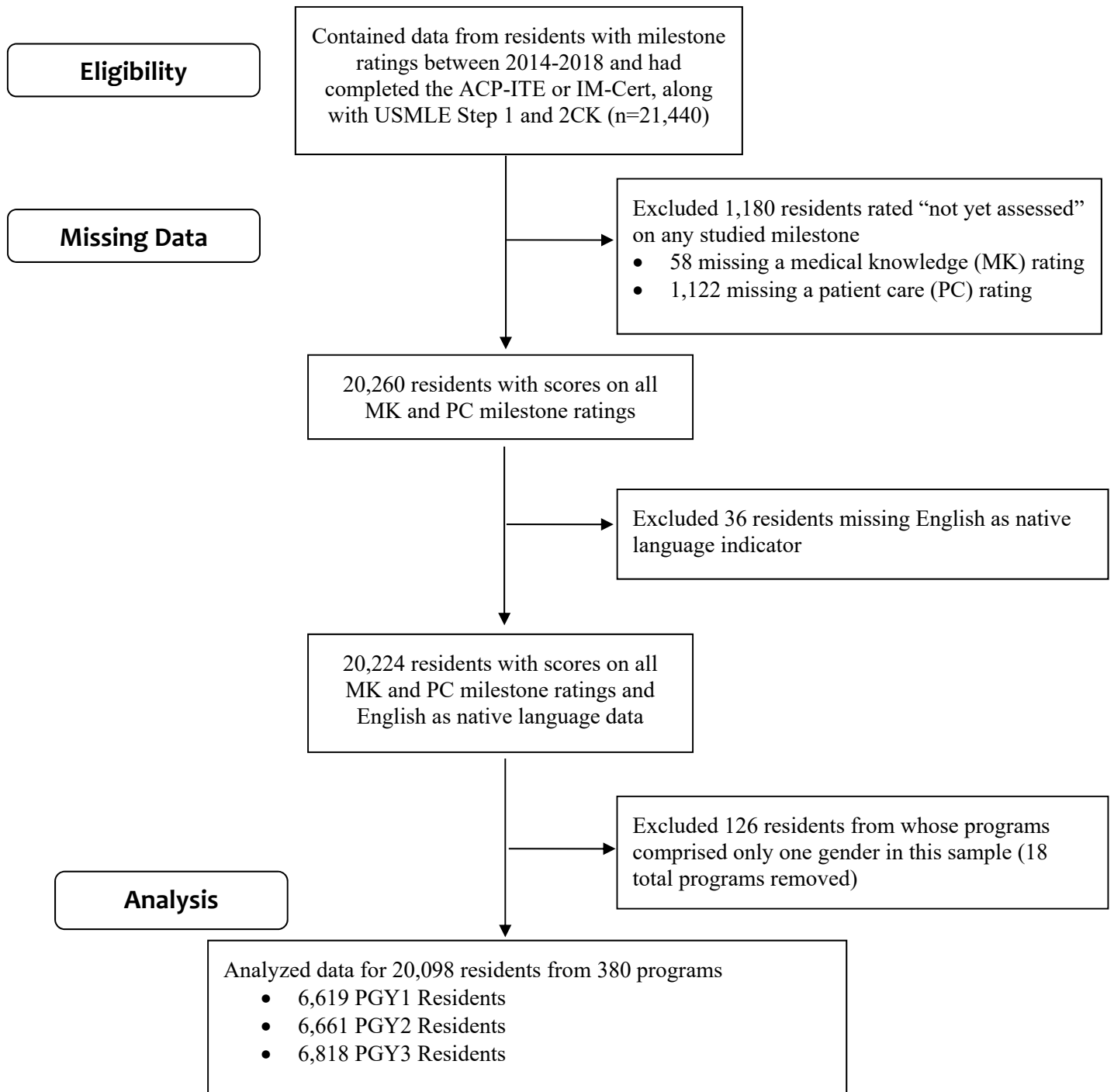


## Supplemental Digital Appendix 1 Flowchart of Study Sample



## Supplemental Digital Appendix 2

### Differential Prediction Regression Model Comparisons for Each Postgraduate Year (PGY) by Milestone Subcompetency Combination (To Highlight the Type of Bias Potentially Present in the Data)

Milestone Subcompetency Subset	Model	PGY 1			PGY 2			PGY 3		
		R <sup>2</sup>	R <sup>2</sup> -Change	Likelihood Ratio <i>P</i>	R <sup>2</sup>	R <sup>2</sup> -Change	Likelihood Ratio <i>P</i>	R <sup>2</sup>	R <sup>2</sup> -Change	Likelihood Ratio <i>P</i>
Medical Knowledge (MK)	Baseline	.426	--	--	.406	--	--	<b>.377</b>	--	--
	Main-Effects	<b>.435</b>	<b>.009</b>	<b>&lt; .001</b>	.413	<b>.007</b>	<b>&lt; .001</b>	.377	0	.56
	Interaction	.435	0	.47	.413	0	.29	.378	.001	.03
Patient Care (PC)	Baseline	.418	--	--	.389	--	--	<b>.367</b>	--	--
	Main-Effects	<b>.428</b>	<b>.010</b>	<b>&lt; .001</b>	.398	<b>.009</b>	<b>&lt; .001</b>	.367	0	.14
	Interaction	.428	0	.58	.398	0	.88	.367	.0	.70

Bold reflects best fitting model as determined by the Likelihood Ratio Test. The likelihood ratio p-value reflects the test against the previous best-fitting model (Main-effects to Baseline; Interaction to Main-effects or Baseline depending on fit). R<sup>2</sup> estimated via the marginal coefficient of determination for mixed-models. All R<sup>2</sup> values reflect the corresponding model including the covariates.<sup>30</sup>